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## Welcome

Dear participants, we welcome you to the fourteenth EMS Annual Meeting and the tenth European Conference on Applied Climatology (ECAC) in Prague. In 2004, the first EMS Annual Meeting as a call-for-contributions type conference together with the ECAC took place in Nice, France. Ten years on, this conference is well established in the European calendar of meetings and has been held in several European countries. The programme has since developed, answering the needs of society: Energy meteorology, only introduced in 2010, is now the largest of all sessions. In 2015 Sofia will host the EMS & ECAM, and the next EMS & ECAC will be organised in Trieste on the Adriatic coast.

### Conference theme

#### **Creating climate services through partnerships**

The theme of the conference highlights the integration of user needs in the development of climate science.

Climate services, infrastructures and networks are under development all around the globe, and many organisations are involved on quite different levels. A panel discussion will explore whether all these efforts come to fruition and the information provided to any users actually reaches them and meets their needs: **The challenges of climate services: bridging the gaps** - on Wednesday afternoon (see page 10).

### Conference programme

The programme of the ECAC & EMS Annual Meeting has been structured into six programme groups:

- *Monitoring climate and climate change*
- *Understanding processes and climate change*
- *Research and services for socio-economic sectors*
- *Communication and education*
- *Numerical weather prediction*
- *The atmospheric system and its interactions*

To build this programme would not have been possible without the work of the convenors that developed and promoted the sessions. Sincere thanks to them for their commitment and hard work! We are also grateful to the Programme and Science Committee for having devised a very interesting programme and hope you will enjoy and benefit from the wealth of research, results and applications that will be presented and discussed during the week.

As in the two previous years the full conference programme will be accessible as an app for mobile devices, in addition to the online programme and the material on the USB stick. Get the download code on page 3 or follow the link on the home page [ems2014.eu](http://ems2014.eu).

### **The exhibition – use the opportunity**

The conference will also feature an exhibition of commercial companies involving manufacturers and service providers. This will be open from Monday lunchtime to Thursday afternoon and we hope you will make use of the opportunity to inform yourself on new developments and plans of these companies.

### **Workshops**

During the conference week a number of interesting workshops will take place:

- *Tips for effectively dealing with the media* – The EMS Media Team will hold this half-day training.
- *Climate Services: Products and tools to make choices* – A CORECLIMAX Capacity Building Workshop.
- *Remote Sensing in Climatology* – The Climate Monitoring Satellite Application Facility at DWD is inviting interested climatologists.
- *WMO RA VI Regional Climate Centre (RCC) Network*.
- *The future of the EMS Annual Meetings: how to organise a conference with reduced carbon foot print*.

Find more details on page 16 and at [meetingorganizer.copernicus.org/EMS2014/sessionprogramme/SIM](http://meetingorganizer.copernicus.org/EMS2014/sessionprogramme/SIM)

### **Awards**

During a special ceremony on Tuesday a number of awards will be handed over: The EMS Young Scientist Award, the Media Awards, including a new EMS Award for Achievements in Journalism, the Young Scientist Travel Awards and last but not least the prestigious EMS Silver Medal. The 2014 Silver Medallist Prof Peter Lynch will then give the Silver Medal Lecture. See details on page 15.

The winner of the Outstanding Poster Award will be announced on Friday at lunchtime, but the prize will be awarded at the Annual Meeting 2015 in Sofia.

### **Thank you**

We are grateful to all who have contributed to make this meeting in Prague a reality – the local organisers, the EMS Member Societies and Associates, the Copernicus organisation, the exhibitors.

Welcome again, and we hope you will have a very interesting week in Prague.

*Dominique Marbouy*

EMS President

*Ingeborg Auer*

Support Manager  
EUMETNET Climate  
Programme

*Václav Dvořák*

Director CHMI

*Tomáš Halenka*

ČMeS President

*Jan Kratochvíl*

Dean – Faculty of  
Mathematics and Physics,  
Charles University

## Location and Conference Address

The 14th EMS Annual Meeting & 10th European Conference on Applied Climatology (ECAC) are held jointly in Prague, Czech Republic, from 06 to 10 October 2014.

The conference is organised jointly by the European Meteorological Society (EMS), EUMETNET Climate Programme, ČMeS, CHMI and Charles University.

### Conference Venue

Clarion Congress Hotel Prague  
Freyova 33  
190 00 Prague, Czech Republic

### Rules of Conduct

- Smoking is prohibited in the conference centre.
- It is prohibited to copy any presentation from the desktops in the lecture rooms.
- Please switch off any mobile phones during the sessions.
- Please note that video-graphic recordings are not allowed.

### Official Language

The official language of the 14th EMS & 10th ECAC is English. Simultaneous interpretation is not provided. It is therefore expected that authors are able to present their research in the English language.

### Insurances

The organisers cannot accept liability for personal accident, loss or damage to private property, which may be incurred as a result of the participation in the conference. Participants are, therefore, advised to arrange appropriate insurance cover. This should extend not only to travel but also to cancellation costs.

## Local Transportation Information

Weekly registration tickets also include a free public transportation ticket (valid in all metro, tram and bus lines within Prague, incl. airport). This ticket is valid from Monday to Friday, 06–10 October 2014. You receive the transportation ticket together with your registration material.

### From the airport Václava Havla

**By public transport:** bus no. 100 runs from the airport to Zličín metro station – line B. Take the metro to Vysočanská station. The hotel is located above the metro station in Galerie Fénix shopping mall.

**By taxi:** registered taxis are available from a stand located in front of the Arrivals hall.

### From the main railway station Hlavní nádraží

**By metro:** take metro C (red line), change lines at Florenc station to metro B (yellow line) and get off at Vysočanská station; the journey takes approx. 15 minutes.

**By taxi:** registered taxis are available from a stand located in front of the main railway station building.

### From the main bus station – Florenc

**By metro:** walk to metro station Florenc, take metro B (yellow line) and get off at Vysočanská station; the journey takes approx. 15 minutes.

**By taxi:** registered taxis are available from a stand located in front of the bus terminal.

## Wireless Network Access

Conference participants have free WiFi in the hotel lobby (one floor below the conference level) and the restaurants. No password is required. WiFi access on the conference level can only be provided for a daily charge of €6. However, WiFi is available in the working room “Stella”. SSID (network) and the password will be provided in the room.

## Registration & Information Desk

The registration & information desk is located in the conference foyer of the Clarion hotel.

### Opening Hours

Sunday, 05 October 2014  
15:00–18:00

Monday – Thursday, 06–09 October 2014  
08:00–18:00

Friday, 10 October 2014  
08:00–10:00

## Registration & Abstract Management

Copernicus Meetings  
Bahnhofsallee 1e  
37081 Göttingen, Germany  
Phone: +49-551-900339-20, Fax: +49-551-900339-70  
meetings@copernicus.org, www.copernicus.org

## Greening EMS

For many years now, the programme book has been printed on recycled paper. With the name badge we are striving to be more environmental-friendly. This year the lanyard is made of bamboo fibre (no PET) along with a biodegradable snap hook (pressed maize). When leaving the conference, we kindly ask you to return the name badge with the lanyard at the registration counter.

## EMS2014 App



Download the EMS2014 App for iPhones and Android Smartphones.

## Conference Hours

### Oral Sessions

#### Monday, 06 October 2014

Opening:	09:30–13:00
Lunch break:	13:00–14:00
Block 3:	14:00–16:00
Posters & coffee break:	16:00–17:00
Block 4:	17:00–19:00
Icebreaker Reception:	19:15–21:00

#### Tuesday, 07 October 2014

Block 1:	08:30–10:30
Posters & coffee break:	10:30–11:30
Block 2:	11:30–13:00
Lunch break:	13:00–14:00
Block 3:	14:00–15:00
Coffee break:	15:00–15:30
Block 4:	15:30–17:30
Block 5:	17:40–18:40

#### Wednesday, 08 October 2014

Block 1:	08:30–10:30
Posters & coffee break:	10:30–11:30
Block 2:	11:30–13:00
Lunch break:	13:00–14:00
Block 3:	14:00–16:00
Coffee break:	16:00–16:30
Block 4:	16:30–18:00

#### Thursday, 09 October 2014

Block 1:	08:30–10:30
Posters & coffee break:	10:30–11:30
Block 2:	11:30–13:00
Lunch break:	13:00–14:00
Block 3:	14:00–16:00
Coffee break:	16:00–16:30
Block 4:	16:30–18:30

#### Friday, 10 October 2014

Block 1:	08:30–10:30
Posters & coffee break:	10:30–11:30
Block 2:	11:30–13:00
Announcement of poster award recipient	13:15–14:00

▲ Please note that video-graphic recordings are not allowed, and mobile phones must be switched off/in mute mode during the sessions.

### Poster Sessions

The poster area is located in room Meridian (see floor plan on page 93). Fixing material is available directly at the entrance of the poster area.

**ECAC and NWP** posters in Poster area **LEFT**, **poster numbers all start with L**.

**ASI and CE** posters Poster area **RIGHT**, **poster numbers all start with R**.

**Poster** numbers distinguish between **front** of the row of poster boards (**LF, RF**) and **back** of the poster board row (**LB, RB**).

We have designed these poster areas in order to ensure that there is ample space in front of the poster boards for a group of people. Thus during any poster session author-in-attendance-time is only scheduled for posters on one side of the aisles (i.e. back or front).

#### Display Times

Authors are kindly asked to put up their posters as soon as possible within the according display time in order to enable the conference participants to view their posters at any time within the display day, and to take them down on Wednesday between 13:00–14:00 (Display Time: Monday to Wednesday) and on Friday between 14:00–15:00 (Display Time: Wednesday to Friday). Posters that have not been removed within this dismantling time will be removed and disposed off.

#### Author in Attendance/poster sessions

- Monday: 16:00–17:00
- Tuesday: 10:30–11:30
- Wednesday: 10:30–11:30 and 16:00–17:00
- Thursday & Friday: 10:30–11:30

Details on attendance time by session: see page 14.

## Coffee Breaks & Lunch

### Coffee Breaks

Free coffee/tea will be served during the Coffee Breaks. The coffee stations are located in the conference foyer as well as in the poster area “Meridian”.

#### Monday, 06 October 2014

10:30–11:00 and 16:00–17:00

#### Tuesday, 07 October 2014

10:30–11:30 and 15:00–15:30

#### Wednesday, 08 October 2014

10:30–11:30 and 16:00–16:30

#### Thursday, 09 October 2014

10:30–11:30 and 16:00–16:30

#### Friday, 10 October 2014

10:30–11:30



## Lunch

Monday–Friday, 13:00–14:00

Drinks and meals are served in the Chronos bar as well as in the restaurant Benada at the hotel reception foyer.

In addition, bistros and supermarkets are available in walking distance in the shopping center Fénix (the entrance is located next to the hotel reception desk).

## Icebreaker Reception

Location: Conference Foyer

Date: Monday, 06 October 2014, 19:15–21:00

## Announcement of poster award recipient

Location: Conference Foyer

Date: Friday, 10 October 2014, 13:15–14:00

## Publications

### Paper Publication in Advances in Science and Research

Authors of contributions that have been accepted to one of the EMS & ECAC 2014 session topics are invited to submit short conference papers to the Open Access Journal *Advances in Science and Research* (<http://www.adv-sci-res.net/volumes.html>).

Details will be sent to the authors by email after the conference.

### Upload of presentations

After the conference, you have the option to upload your oral presentation or your poster as Power Point or PDF file for online publication alongside your abstract. This shall give all interested participants the chance to revisit your contribution.

Details will be sent to the authors by email after the conference.

## Conference Committees

### Programme and Science Committee (PSC)

**Chair:** Horst Böttger (EMS Committee on Meetings)

Ingeborg Auer (EUMETNET Climate Programme)  
Ekaterina Batchvarova (Bulgarian Meteorological Soc.)  
Liz Bentley (RMetS, United Kingdom)  
Tanja Cegnar (SEA, Slovenia)  
Ben Dieterink (HMEI)  
Marie Doutriaux Boucher (EUMETSAT)  
Jean-Francois Geleyn (Météo France)  
Renate Hagedorn (DWD, Germany)  
Tomas Halenka (ČMeS, Czech Republic)  
Tim Hewson (ECMWF)  
Sylvain Joffre (FMI, Finland)  
André Jol (EEA)  
Martina Junge (EMS)  
Andrea Kaiser-Weiss (DWD, Germany)  
Haleh Kootval (WMO)  
Will Lang (Met Office, United Kingdom)  
Pierre-Philippe Matthieu (ESA)  
Ewen McCallum (EMS Committee on Meetings)  
Robert Mureau (MeteoGroup)  
Heleen ter Pelkwijk (NVBM, The Netherlands)  
Jan Pretel (CHMI, Czech Republic)  
Hans Richner (SGM, IACETH, Switzerland)

### Programme Group Chairs

European Conference on Applied Climatology (ECAC):  
Ingeborg Auer  
The Atmospheric System and its Interactions (ASI):  
Sylvain Joffre  
Communication and Education (CE):  
Tanja Cegnar  
Numerical Weather Prediction (NWP):  
Jean-Francois Geleyn

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## Public great debate at Charles University: Climate change – reality without myths *Panel discussion on climate change issues and consequences, how to cope with them*

**Tuesday, 07 October 2014, 18:00–19:30**

**Panelists:** Daniela Jacob, Rasmus Benestad (confirmed)

**Contact person:** Thomas Halenka

**Where:** House for Professed, Great Hall (Faculty of Mathematics and Physics, Charles University)  
Malostranské náměstí 25, Praha 1 – Mala Strana (Lesser Town)

**How to get there:** from Clarion hotel use underground line B, at Mustek change to line A for two stops to Malostranska. Walking distance (10 min) or by tram No. 12, 20, 22 (one stop to Malostranske namesti) (see also page 32).

# Advances in Science & Research

## The **Open Access Proceedings** of the European Meteorological Society (EMS)

**Managing Editor | Martina Junge**

**Advances in Science and Research (ASR)** is the international open access proceedings journal of the European Meteorological Society (EMS). ASR publishes advances in science, profession and application of meteorology, climatology and related fields presented at the Annual Meetings of the EMS as well as at the European Conferences on Applications of Meteorology (ECAM) and on Applied Climatology (ECAC). All manuscripts submitted to ASR undergo a rigorous peer-review organised by the Programme and Science Committee (PSC).

### **Abstracted/Indexed**

Indexed in ADS and GeoRef

Included in Directory of Open Access Journals (DOAJ)

Long-term e-archived in Portico and CLOCKSS

### **Deadline for submissions: 15 January 2015**

Authors of contributions that have been accepted to one of the EMS & ECAC 2014 session topics are invited to submit short conference papers. Details will be sent to the authors by email after the conference.

## Exhibition

Monday, 12:00–18:00

Tuesday – Thursday, 09:00–18:00

Please use the opportunity to visit the exhibition in the conference foyer:

### American Meteorological Society (booth #3)

45 Beacon Street  
Boston, MA 02108  
United States

<http://ametsoc.org/>



The American Meteorological Society promotes the development and dissemination of information and education on the atmospheric and related oceanic and hydrologic sciences and the advancement of their professional applications. AMS publishes eleven atmospheric and related oceanic and hydrologic journals — in print and online — sponsors more than 12 conferences annually, and offers numerous programs and services.

### Kipp & Zonen B.V. (booth #1)

P.O. Box 507  
2600 AM Delft  
Netherlands



<http://www.kippzonen.com>

Kipp & Zonen is the specialist in the measurement of solar and sky radiation, from the ultraviolet to the far infrared. We offer a complete range of high quality instrumentation and accessories, from reliable cost-effective products to the best performance available. Our pyranometers, for example, are used in meteorological networks around the world.

The USB flash drives which contain the programme and the abstracts of the conference are sponsored by Kipp & Zonen.

### Scintec AG (booth #2)

Wilhelm-Maybach-Strasse 14  
72108 Rottenburg  
Germany



<http://www.scintec.com>

Scintec produces the most advanced and comprehensive line of wind and temperature profilers in SODAR, RADAR and RASS technology, as well as optical SCINTILLOMETERS for the measurement of boundary layer turbulence and heat flux. Continuing scientific innovation, outstanding product design and customer oriented philosophy has made Scintec a global leader in this field. Please come and visit us at our booth.

The conference lanyards are sponsored by Scintec.

## Euromet'14 – EMS Photo Competition

Monday – Friday, 09:00–18:00

The Euromet'14 received again an impressive response throughout Europe and from other parts of the world.

The top ten photos that received the highest ranking in the public opinion poll are displayed in the conference foyer.

Enjoy the photos!



# CVF4 Ventilation Unit

**Improved Reliability and Accuracy with the CVF4 Ventilation Unit**



- Low power and low maintenance**
- Can be used under all weather conditions**
- Improves accuracy of radiometer data**
- Reduces frequency of dome cleaning**
- Improves stability of measurements**
- Prevents dew**

Ventilation of radiometers improves the reliability and accuracy of the measurements by reducing dust and precipitation of dew on the dome, which would otherwise affect the measurement. The CVF4 is the best ventilation unit currently available for radiometers. The latest flow simulation software and micro flow and temperature measurement devices were used in the development process to maximise the performance and minimize maintenance.

[www.kippzonen.com](http://www.kippzonen.com)

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**Opening Session**  
**Monday, 06 October 2014**  
**Lecture Room Zenit**

**09:30–10:30 Opening ceremony**

**Opening by the EMS President**

Dominique Marbouty, EMS President

**Welcome Addresses**

Václav Dvořák, CHMI Director

Tomáš Halenka, ČMeS President

Berenika Peštová, Deputy Minister of the Environment, Czech Republic

Tomáš Zima, The Rector of Charles University in Prague

Jan Kratochvíl, The Dean of Faculty of Mathematics and Physics,  
Charles University in Prague

Gé Verver, EUMETNET Climate Programme

Robert Mureau, PRIMET

HMEI – The Association of Hydro-Meteorological Equipment Industry

William Gail, AMS President

**10:30–11:00 Coffee Break**

**11:00–13:00 Strategic Lectures**

**Chair:** Dominique Marbouty

**Jeremiah Lengoasa, Deputy Secretary-General, WMO**

*Global Framework for Climate Services*

**Jean-Pascal van Ypersele, Université catholique de Louvain, Louvain la Neuve,  
IPCC – Vice-Chair WG 2**

*The Climate Change Challenge and its Opportunities*

**Clare Goodess, Climatic Research Unit, School of Environmental Sciences,  
University of East Anglia, WCRP WG on Regional Climate**

*From consultation to co-production – the integration of user needs in the  
development of climate science*

**Mauro Facchini, DG Enterprise and Industry, Head of Copernicus Services Unit**

*Title: to be confirmed*

**13:00 Closing**

**ECAC Symposium:  
The challenge of Climate Services: bridging the gaps**

**Wednesday, 08 October 2014, 16:30  
Lecture Room Zenit**

Climate services are the dissemination of climate information to the public or a specific user. They involve strong partnerships among providers (...) and stakeholders, including government agencies, private interests, and academia, for the purpose of interpreting and applying climate information for decision making, sustainable development, and improving climate information products, predictions, and outlooks (Cited after WMO).

The climate science community finds itself increasingly exposed to various groups of stakeholders asking rather specific questions about consequences, uncertainties, probabilities related to climate and climate change. This corresponds to a wide variety of 'user needs'. Hence, many requests for climate services (CS) will be a two-way exchange: not only will climate information be provided to users, but users will influence the development of climate services and the underpinning research by defining their needs.

Work on climate services is generally organised on a national level. Hence, we often find duplication of efforts. Consistency at a European level would be relevant with regard to data availability, improved tool/methods development and for cross-border issues. (cited after JPI Climate)

To stand up to the challenges of developing and delivering CS in Europe four issues of scientific research and learning in network should be tackled: Improved data availability, better tools/methods for providing CS, consistency in cross-border settings, two-way exchange on climate knowledge.

The questions to be discussed at this plenary session are:

- Is the information we currently provide adapted to user-needs, useful to the users?
- Are there good examples where provision of climate (change) information has led to actions by the users
- What is required to better meet the needs of the users?

**16.30–18.00    Moderated Panel Discussion**

***Introductory Lecture on Climate Services and challenges***

**Hans von Storch**, *Institute of Coastal Research, Head of Department System analysis and Modelling*

**Moderator:** *Gé Verver, EUMETNET Climate Programme*

***Panellists:***

**Hans von Storch**, *Institute of Coastal Research, Head of Department System analysis and Modelling*

**Radim Tolasz**, *CHMI, Head of Department of Climate Change*

**Inger Hansen Bauer**, *Norwegian Meteorological Institute*

**Chris Hewitt**, *UK Met Office, Head of Climate Service Development*

**Hilppa Gregow**, *FMI and EUMETNET Climate Programme*

**User of climate information/services** *tbd*

**18:00 Closing**

## Awards Session Tuesday, 07 October 2014 Lecture Room Zenit

14:00–15:00 Award Ceremonies

**Young Scientist Travel Awards**  
**2013 Poster Award**  
**EMS Young Scientist Award**  
**EMS Media Awards**  
**Harry Offen Prize – Announcement 2015**  
**Laudatio for Silver Medalist**  
**Silver Medal Lecture**

15:00–15:30 Coffee Break

**Young Scientist Travel Awards** are given to support participation of outstanding students and young scientists at EMS-co-sponsored conferences. The recipients are selected by the EMS Awards Committee: [www.emetsoc.org/governance-structure/project-teams-committees/awards](http://www.emetsoc.org/governance-structure/project-teams-committees/awards). This year's recipients are listed on page 13.

The **Outstanding Poster Award** has been established in 2009, to highlight good quality posters presented at the EMS Annual Meetings. The winners of the award 2013 are J.S.R. Owen, P. Knippertz, and T.M. Trzeciak, University of Leeds, UK, with the poster '*Severe European cyclones: a storm-prone situation perspective*'. The poster will be on display again in the foyer. The winner of the award 2014 will be announced on Friday and be honoured at the EMS&ECAM 2015 in Sofia. For more details see page 14.

The **EMS Young Scientist Award** is presented annually to acknowledge excellence in young scientists. The award is in form of a prize money and travel expenses to cover the attendance of the EMS Annual Meeting. The awardee is selected by the EMS Awards Committee. The awardee 2014 is Cathryn Birch, University of Leeds. She is awarded for scientific work that brings together models and observations to quantify the processes leading to major biases in weather and climate models. Cathryn Birch will give a Young Scientist Award Lecture on Thursday, 14:00 in Session ASI1. See page 68.

The **EMS Outreach & Communication Award** is given in recognition of projects that explore new and effective ways to communicate the science of meteorology, climatology and related fields to the general public. The projects may deal with the results or the consequences of science, and may also be targeted at a more specific audience. The recipients of the **Media Awards** will also contribute to the session on **Media and Communication, Tuesday, 07 September 2014, 08:30–13:00, Room Taurus**.

The **TV Weather Forecast** is presented to individuals to acknowledge best practice in communication of meteorology.

The new **Award for Achievements in Journalism on Meteorology and Climatology** aims to support and highlight work that is essential to better bridge the often-existing communication gap between science and the public.

The **EMS Silver Medal** is presented annually to a person that has made distinguished



contributions to the development of meteorology in Europe. The Silver Medal 2014 is

awarded to Peter Lynch for his outstanding contribution to meteorological education and outreach activities, his important scientific contribution to Numerical Weather forecasting and his leadership in international collaborations.

Peter Lynch will give a Silver Medal Lecture: "Balanced Flow on the Spinning Globe".

The **Laudatio** is given by David M. Burridge. More details see page 15.





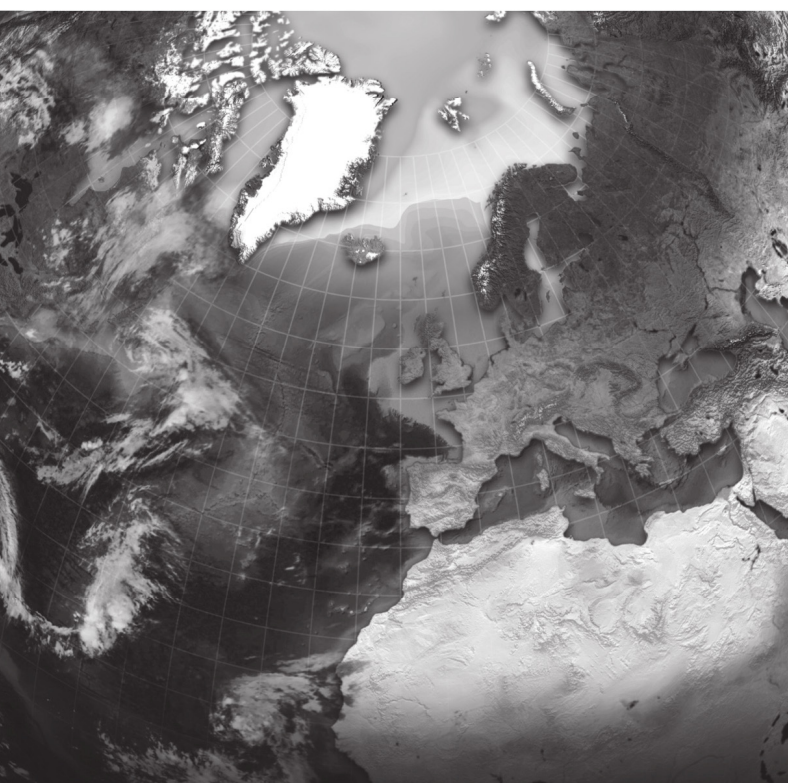
The

# Harry Otten Prize

for Innovation in Meteorology

## 25000 Euro

for the best innovative idea in meteorology



The Harry Otten Prize is a prize of **25000 Euro** that will be awarded every two years for the best innovative idea in Meteorology.

The prize encourages individuals and small groups (maximum of 3 individuals) to propose new ideas of how meteorology in a practical way can further move society forward.

The prize will be awarded during the meeting of the European Meteorological Society (EMS) in Sofia (Bulgaria) 9 September 2015.

Ideas for the prize may be submitted from 15 October 2014 until the closing date of 10 March 2015.

Harry Otten was the founder of MeteoGroup, a successful company providing meteorological services. He expressed his gratitude to the meteorological community by creating an endowment that supports the prize.

The endowment is governed by an independent board. The members of the board also form the jury that awards the prize.



## Young Scientist Travel Awards

### Ivo van Hooijdonk

*EMS2014-9: Shear Capacity as Predictor of Nocturnal Boundary Layer Regimes*

**Thursday, 09 October 2014**

**14:30–14:45**

Session ASI8, room Leo + Virgo  
see page 70



### Anna Kis

*EMS2014-14: Projected changes of percentile-based precipitation indices for the 21st century in Central/Eastern Europe*

**Friday, 10 October 2014**

**11:30–11:45**

Session UC2, room Zenit  
see page 80



### Rogiros Tapakis

*EMS2014-34: Computation Of Cloud Motion For Solar Irradiance Prediction*

**Monday, 06 October 2014**

**17:30–17:45**

Session ASI13, room Nadir  
see page 27



### João Carlos Teixeira

*EMS2014-24: Identifying coupling Modes of Particulate Matter and Meteorological Fields through Singular Vector Decomposition*

**Monday, 06 October 2014**

**14:00–14:15**

Session ASI11, room Tycho  
see page 25



## Outstanding Poster Award

### An Outstanding Poster Award will be given at the 14th EMS & 10th ECAC in Prague.

A Select Committee has been established; members are:

- Ingeborg Auer, Austria
- Frank Beyrich, Germany
- Marie Doutriaux Boucher, EUMETSAT
- Tomas Halenka, Czech Republic
- Ewen McCallum, UK (chair)

The selection of the outstanding poster will be based on the following criteria:

- Scientific quality;
- Innovativeness of the approach;
- Potential impacts of the results;
- Presentation aspect, including clarity of the message to readers of your poster.

### Award

The author(s) will receive a certificate, one registration fee waiver for the EMS&ECAM 2015 and the poster will be highlighted as example of Best Practice on the EMS Website. The recipient of the award will be announced on Friday, 10 October 2014, 13:15, in the foyer.

### Award winning poster 2013

**Severe European cyclones: a storm-prone situation perspective**, by J.S.R. Owen, P. Knippertz, and T.M. Trzeciak, University of Leeds, UK.

The poster is on display in the foyer, and at the back of this programme book.

All posters are on display in room **Meridian**. ECAC and NWP posters in Poster area **LEFT**, **poster numbers all start with L**.

ASI and CE posters Poster area **RIGHT**, **poster numbers all start with R**.

**Poster** numbers distinguish between **front** of the row of poster boards (**LF**, **RF**) and **back** of the poster board row (**LB**, **RB**).

Please see the plan on page 93.

During any poster session author-in-attendance-time is only scheduled for posters on one side of the aisles (back or front).

## Poster sessions:

### Monday, 06 October 2014, 16:00–17:00

**UC1:** Climate change detection

**NWP2:** Numerical aspects in NWP models

**NWP3:** Data assimilation

**ASI11:** Environmental meteorology

**ASI13:** Energy meteorology

### Tuesday, 07 October 2014, 10:30–11:30

**UC1:** Climate change detection

**UC5:** Synoptic Climatology

**SE2:** CORDEX

**SE4:** European Projects CS

**ASI13:** Energy meteorology

**CE1:** Media and Communication

**NWP4:** Probab. & ensemble forecasting

### Wednesday, 08 October 2014, 10:30–11:30

**SE5:** GFCS in non-European regions

**CE2:** Adaptation

**NWP1:** Dynamics high impact weather

**ASI4:** Coastal meteorology & oceanog.

**ASI13:** Energy meteorology

### Wednesday, 08 October 2014, 16:00–17:00.

**MC3:** Historical Climatology

**SE1/CE6:** Climate Services partnerships

**NWP5/ASI14:** Mountain Meteorology

**ASI7:** Atmospheric hazards

### Thursday, 09 October 2014, 10:30–11:30

**MC1:** Climate monitoring

**MC2:** Spatial climatology

**UC4/SE3:** Global & regional reanalyses

**CE3:** Communication of uncertainty

**ASI1:** Dynamical Meteorology

**ASI8:** BL physics and parameterizations

**ASI10/MC5:** Urban climate

**ASI12/MC4:** Phenology & Agromet.

### Friday, 10 October 2014, 10:30–11:30

**UC2:** Climate prediction

**UC3:** Verification

**CE4:** Education

**ASI2:** Space weather

**ASI5/CE8:** Human biometeorology

**ASI6:** Atmospheric measurements

## EMS Silver Medal Lecture 2014

### Prestigious award for outstanding contributions to meteorological education and outreach

The European Meteorological Society (EMS) has chosen **Prof. Peter Lynch** as Laureate of the EMS Silver Medal 2014. He is honoured for his outstanding contribution to meteorological education and outreach activities, his important scientific contribution to Numerical Weather forecasting and his leadership in international collaborations.

The Silver Medal ceremony, which includes the Silver Medal Lecture "Balanced Flow on the Spinning Globe" by the Laureate, will be held on Tuesday, 07 October 2014, during the EMS Annual Meeting and European Conference on Applied Climatology (ECAC) in Prague, Czech Republic.

Peter Lynch has worked tirelessly at promoting meteorological education and enhancing public understanding of meteorology and related sciences through numerous lectures, appearances on TV and Radio news channels and a topical column in a newspaper entitled "That's Math". He is modern with blogs and likes to share his knowledge in the media by maintaining open access to all of his publications and lecture material on the web. He is an excellent teacher and communicator of complex scientific topics.

Peter Lynch has demonstrated scientific leadership in many aspects of meteorological science, in particular in numerical weather forecasting (NWP). Most notable is his pioneering work on the method of initialization, based on digital filtering (DFI), to control spurious gravity-wave oscillations in NWP models. He was also instrumental in establishing a Community Climate Change Consortium for Ireland and led the automation and extension of the national observing network, managing the design and deployment of the unified climate and synoptic observing network (TUCSON).

Peter Lynch has been of service to the European research community through an impressive number of activities, such as being

Project Leader of the HIRLAM Project (High Resolution Limited Area Model, 1997–1999), and a member of many international committees including the Scientific Advisory Committee of the European Centre for Medium-range Weather Forecasts, the International Association for Meteorology and Atmospheric Sciences and the Advisory Board for Tellus.

### Peter Lynch's blog. [thatsmaths.com](http://thatsmaths.com):

<https://twitter.com/thatsmaths>

### *Laudatio*

The laudatio will be given by David Burridge, the recipient of the EMS Silver Medal in 2010, honoured for his outstanding leadership and scientific contributions in the field of numerical weather prediction.

David Burridge held the position of Director of the European Centre for Medium-Range Weather Forecasts (ECMWF) from 1991 to 2004. His innovative contributions to the field of numerical weather prediction were a major contribution to the establishment and maintenance of the ECMWF as a world-leading forecast centre. After retirement from ECMWF he has been shaping and steering the implementation of the THORPEX Programme.

David Burridge was the President of the EMS from 2005 to 2008.

### *EMS Silver Medal*

The EMS Silver Medal was established in 2008 to honour important contributions to the development of meteorology in Europe. The Award is presented annually. Candidates for the EMS Silver Medal are nominated by Member Societies and Associate Members of the EMS. The EMS Awards Committee, consisting of senior members of meteorological institutions in Europe, makes recommendations to the EMS Council for a final decision.

Previous recipients include Karin Labitzke (Germany), René Morin (France), Lennart Bengtsson (Sweden/Germany), David Burridge (United Kingdom), Jean-François Geleyn (France/Czech Republic), Tim Palmer (United Kingdom) and Hartmut Graßl (Germany).

## Side Meetings & Workshops

### Monday, 06 October 2014

<b>14:00–19:00</b>	<b>Remote Sensing in Climatology</b> Contact: Richard Müller  <b>Side meeting room: Aquarius</b>
<b>14:00–19:00</b>	<b>Communications workshop for European weather services I (by invitation only)</b> Contact: Michael Williams  <b>Room: Taurus</b>

### Tuesday, 07 October 2014

<b>11:30–15:00</b>	<b>EUMETNET Climate Expert Team</b> Contact: Ingeborg Auer  <b>Side meeting room: Aquarius</b>
<b>14:00–17:30</b>	<b>Communications workshop for European weather services II (by invitation only)</b> Contact: Michael Williams  <b>Room: Taurus</b>
<b>15:30–17:00</b>	<b>Programme and Science Committee EMS&amp;ECAM 2015</b> Contact: Martina Junge (by invitation only)  <b>Side meeting room: Aquarius</b>
<b>17:00–19:00</b>	<b>WMO RA VI RCC Network: Informal coordination meeting</b> Contact: Stefan Rösner & Aryan F.V. van Engelen  <b>Room: Quadrant</b>

### Wednesday, 08 October 2014

<b>08:30–13:00</b>	<b>Tips for effectively dealing with the media – training workshop on communication (public, registration requested)</b> Contact: Tanja Cegnar  <b>Side meeting room: Aquarius</b>
<b>12:00–15:00</b>	<b>ESSL Executive Board Meeting</b> Contact: Alois M. Holzer (by invitation only)  <b>Room: Quadrant</b>
<b>14:00–16:00</b>	<b>The future of the EMS Annual Meetings: how to organise a conference with reduced carbon foot print</b> Contact: Renate Hagedorn  <b>Side meeting room: Aquarius</b>
<b>16:00–18:00</b>	<b>Harry Otten Board Meeting</b> Contact: Dennis Schulze  <b>Room: Quadrant</b>
<b>17:30–19:00</b>	<b>ESSL General Assembly</b> Convener: Alois M. Holzer (by invitation only)  <b>Side meeting room: Aquarius</b>

**Thursday, 09 October 2014**

<b>08:30–19:00</b>	<b>ESSL ESWD meeting</b> Contact: Alois M. Holzer (by invitation only)  <b>Room: Quadrant</b>
<b>08:30–13:00</b>	<b>RCC Network (RA VI) Workshop</b> Contact: Stefan Rösner, DWD (public, registration requested)  <b>Side meeting room: Aquarius</b>
<b>14:00–16:00</b>	<b>JPI climate meeting on user-provider interaction</b> Contact: Carlo Buontempo  <b>Side meeting room: Aquarius</b>

**Friday, 10 October 2014**

<b>08:30–13:00</b>	<b>CORECLIMAX Capacity Building Workshop – Climate Services: Products and tools to make choices</b> Contact: Bob Su & Wim Timmermans (by registration only) For details see page 79.  <b>Side meeting room: Aquarius</b>
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**Join two interesting EMS Workshops****Tips for effectively dealing with the media**

Wednesday, 08:30–13:00, room Aquarius

Organisers: Tanja Cegnar, Ewen McCallum

This interesting and informative workshop will be run by experienced professionals used to dealing with the media in their daily work. The half day workshop will begin with a brief introduction about its content and what we hope to achieve. It will continue with interactive exercise involving media interviews and feedback.

You will learn how to create your key messages in preparing for the interviews and in delivering them at interview. Are you aiming to attract the news media attention with your media release including all the five W's and an eye-catching headline? If yes, come to the training workshop.

If you are interested in participating in the training workshop we would appreciate if you could contact us by sending an e-mail to [workshop@emetsoc.org](mailto:workshop@emetsoc.org), so we get an idea how many participants we can expect.

**The future of the EMS Annual Meetings: how to organise a conference with reduced carbon foot print**

Wednesday, 14:00–16:00, room Aquarius

Organisers: Renate Hagedorn, Martina Junge

Between 400 and 700 participants each year attend the EMS Annual Meeting & partner conferences. Though small by comparison, the travel across Europe, the amount of paper and waste produced as a result is considerable. The EMS thus is looking at the different aspects and impacts of the meetings and is in the process of developing guidelines for the organisation of the meeting. These should be continually evaluated as technologies and mitigation options continue to develop and we are inviting every interested participant to this mini workshop to discuss and brainstorm on concepts for future scientific meetings.

The goal of this workshop is to develop possible improvements and innovative ideas to change the setup of scientific meetings. The workshop is organised by the EMS Committee on Meetings, and is open to everyone interested in thinking about the future of scientific meetings.



# EUMETSAT METEOROLOGICAL SATELLITE

CONFERENCE 2015

The EUMETSAT Meteorological Satellite Conference has been a key annual event for the meteorological community since the organisation's inception in 1986.

The 2015 EUMETSAT Meteorological Satellite Conference will be held in scenic Toulouse, France, and hosted and co-organised by Météo-France, the national weather and climate service for France.

The overarching theme will be "advances in nowcasting and limited area modelling and preparation for new geostationary satellites" and sessions will cover marine meteorology and oceanography, scientific achievements and future objectives for satellite climate observations, and atmospheric composition to name but some.

## WHO SHOULD ATTEND

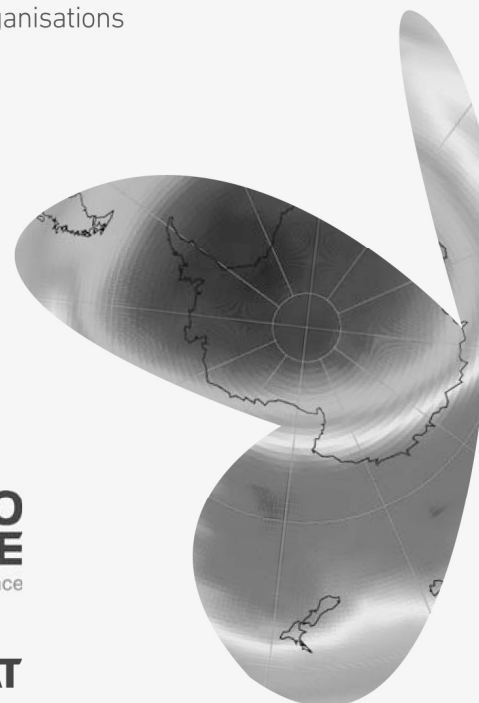
- Experts from meteorological services, universities, satellite operating agencies working in the field of satellite meteorology and related applications in weather forecasting, climate research and services, oceanography and the environment.
- Interested scientists and students from universities and organisations dealing with Earth observations.

## FOR MORE INFORMATION CONTACT:

**[Conference-organisation@eumetsat.int](mailto:Conference-organisation@eumetsat.int)**

Abstract submission deadline is 30 January 2015

TOULOUSE. FRANCE.  
21-25 SEPTEMBER.

 **METEO  
FRANCE**  
Toujours un temps d'avance **EUMETSAT**

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## EMS - AN UMBRELLA ORGANISATION FOR THE METEOROLOGICAL COMMUNITY IN EUROPE

EMS is the association of meteorological societies in Europe. National meteorological and hydrological services, private service providers, manufacturers, educational and academic institutions and European organisations are an integral part of the network and support the EMS as Associate Members.

... If you are a member or staff of one of the EMS Member organisations you can benefit from **reduced registration fees at EMS Annual Meetings** ...

### OUR MISSION:

- ... To advance the science, profession and application of meteorology and of related sciences for the benefit of the whole population

### OUR ACTIVITIES:

- ... Annual conference
- ... Awards Programme: Young Scientist Travel Awards, Young Scientist Award, Media and Outreach Awards, Silver Medal
- ... Publications: [emetsoc.org](http://emetsoc.org), ASR-Proceedings of the EMS/ECAC/ECAM meetings, Annual Report, bi-monthly electronic newsletter
- ... Biennial photo competition of meteorological phenomena - **see the exhibition of the winning entries 2014 at this conference in the foyer**
- ... Code of Practice on communication
- ... Workshops: training in communication, tools for forecasters

### BENEFITS

- ... Individual members of Member Societies and Associate Members are eligible for reduced registration fees at EMS Annual Meetings
- ... Travel support for young scientists in Europe
- ... Information on activities of the European meteorological community on the website
- ... Support for topical and regional meetings organised by EMS Members
- ... Free publication of job opportunities on the EMS Website

### FOR MORE INFORMATION

about the activities and benefits of EMS Membership visit the EMS Website at **[www.emetsoc.org](http://www.emetsoc.org)**.

### PEOPLE



Dominique Marbouty  
President  
Term: 09/2011 – 10/2014



Horst Böttger  
Chair Committee on Meetings



Bob Riddaway  
Vice-President  
Term: 09/2013 – 09/2016



Tanja Cegnar  
Chair Media Team



Jean-Pierre Chalon  
Treasurer  
Term: 09/2011 – 10/2014



Guðrún Nína Petersen  
Chair Awards Committee



Tomas Halenka  
Chair Education  
Project Team



Monday, 06 October 2014						
09:30–10:30	<b>Opening Session I Room Zenit</b> Opening by the EMS President and Welcome Addresses see also page 9.					
10:30	Coffee Break					
11:00–13:00	<b>Opening Session I Room Zenit</b> Strategic Lectures see also page 9.					
13:00	Lunch Break					
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius
14:00–16:00	<b>UC1:</b> Climate change detection, assessment of trends, variability and extremes	<b>ASI13:</b> Energy Meteorology	<b>NWP2:</b> Numerical aspects and physical parametrization integration	<b>ASI11:</b> Meteorological processes, atmospheric composition and pollution	<b>SIM6:</b> Communication workshop European weather services	<b>SIM1:</b> Remote Sensing in Climatology
16:00–17:00	<b>Poster Session &amp; Coffee Break I Foyer and Room Meridian</b>  <i>Poster authors in attendance time for the following sessions:</i> ECAC programme group: <b>UC1</b> (LF1 - LF18) NWP programme group: <b>NWP2</b> (LB19 - LB21), <b>NWP3</b> (LB22 - LB25) ASI programme group: <b>ASI11</b> (RF15 - RF27), <b>ASI13</b> (RB2 - RB10)					
17:00–19:00	<b>UC1</b>	<b>ASI13</b>	<b>NWP2</b> until 17:30 <b>NWP3:</b> Data assimilation & use observations 17:30-19:00	<b>ASI11</b>	<b>SIM6</b>	<b>SIM1</b>
19:15	Ice breaker in exhibition area (Foyer) and poster area (room Meridian)					

In the detailed daily programme (on pages 22 to 31) the related ECAC, ASI and NWP sessions are listed in the following order: UC1, NWP2, NWP3, ASI11, ASI13.

#### Poster Display Time Monday – Wednesday lunchtime

Authors are kindly asked to put up their posters as soon as possible within the allocated display time in order to enable the conference participants to view their posters at any time within the display days, and to take them down on Wednesday between 13:00–14:00. Posters that have not been removed within this dismantling time will be removed and disposed off.

## Special Events

### SPS1 Opening Session

Lecture Room: Zenit

09:30–10:30

**Chairperson(s):** Dominique Marbouty

#### Opening and Welcome Addresses

**09:30–09:40:** Dominique Marbouty, EMS President: Opening

**09:40–09:45:** Václav Dvořák, CHMI Director

**09:45–09:50:** Tomas Halenka, ČMeS President

**09:50–09:55:** Berenika Peštová, Deputy Minister of the Environment, Czech Republic

**09:55–10:00:** Tomáš Zima, The Rector of Charles University in Prague

**10:00–10:05:** Jan Kratochvíl, The Dean of Faculty of Mathematics and Physics, Charles University in Prague

**10:05–10:10:** Gé Verver, EUMETNET Climate Programme

**10:10–10:15:** Robert Mureau, PRIMET

**10:15–10:20:** HMEI – The Association of Hydro-Meteorological Equipment Industry

**10:20–10:25:** William Gail, AMS President

**10:25–10:30:** Closing Opening Ceremony

**10:30 Coffee Break**

11:00–13:00

**Chairperson(s):** Dominique Marbouty

#### Strategic lectures: Creating climate services through partnerships

**11:00–11:30:**  
Global Framework for Climate Services  
**Jeremiah Lengoasa**  
Deputy Secretary-General, WMO

**11:30–12:00: EMS2014-668**  
The Climate Change Challenge and its Opportunities  
**Jean-Pascale van Ypersele**  
Université catholique de Louvain, ELI, Belgium

**12:00–12:30: EMS2014-665**  
From consultation to co-production - the integration of user needs in the development of climate science  
**Clare Goodess**  
University of East Anglia, Climatic Research Unit, United Kingdom (C.Goodess@uea.ac.uk)

12:30–13:00:

**Mauro Facchini**

DG Enterprise and Industry, Head of Copernicus Services Unit

END OF ORAL PROGRAMME SPS1

## European Conference on Applied Climatology (ECAC)

### Understanding processes and climate change

#### UC1 Climate change detection, assessment of trends, variability and extremes

**Convener:** Albert M.G. Klein Tank

**Co-Conveners:** Martine Rebetez; Monika Lakatos

**Lecture Room:** Zenit

14:00–16:00

**Chairperson(s):** Monika Lakatos

**14:00–14:15: EMS2014-37**

The blocking process and their impact on the anomalous weather in Ukraine

**Luliana Bazalieieva**, Vira Balabukh

Ukrainian Hydrometeorological Institute, Department of Synoptic Meteorology, Kiev, Ukraine  
(bazaleeva.y@gmail.com, balabukh@rambler.ru)

**14:15–14:30: EMS2014-443**

Joint examination of climate variables, Standardized Precipitation and Temperature Index (SPTI)

**Tamás Szentimrey**, Mónika Lakatos, Zita Bihari  
Hungarian Meteorological Service, Budapest, Hungary  
(szentimrey.t@met.hu)

**14:30–14:45: EMS2014-567**

Climate extremes in Poland - their variability and changes with connection to change in mean climate

**Joanna Wibig**

University of Lodz, Meteorology and Climatology, Lodz, Poland (zameteo@uni.lodz.pl)

**14:45–15:00: EMS2014-145**

Observations based analysis of hot summers over European Russia

**Yulia Zyulyaeva**, Igor Zveryaev, Peter Koltermann  
P.P. Shirshov Institute of Oceanology, RAS, Laboratory of Ocean-Atmosphere Interaction and Monitoring of Climate Change, Moscow, Russian Federation  
(yulia@sail.msk.ru)

**15:00–15:15: EMS2014-250**

Characteristics of western European heat waves simulated by the CMIP5 models - Contributions to the ensemble spread in future climate projections

**Robert Schoetter**, Julien Cattiaux, Hervé Douville  
CNRM-GAME, Toulouse, France  
(robert.schoetter@meteo.fr)

**15:15–15:30: EMS2014-388**

Effect of temporal autocorrelations on the simulation of dry spells and heat waves in high resolution ALARO-Climate/CZ RCM

**Lucie Pokorna**, Ondrej Lhotka, Ales Farda, Petr Stepanek  
Institute of Atmospheric Physics ASCR, Dept. of Climatology, Prague, Czech Republic  
(pokorna@ufa.cas.cz)

**15:30–15:45: EMS2014-464**

Issues in estimating past climate change at local scale. Case study: the recent warming (1959-2009) over France

**Lola Corre**, Aurélien Ribes, Anne-Laure Gibelin, Brigitte Dubuisson  
Météo-France, Division de la Climatologie, Toulouse, France (lola.corre@meteo.fr)

**15:45–16:00: EMS2014-496**

Quantification of the Urban Heat Island effect on the rise of the European temperature

**Gerard van der Schrier**, Else van den Besselaar, Albert Klein Tank, Theo Brandsma, Anthi Chrysanthou  
Royal Netherlands Meteorological Institute, Climate Analysis, De Bilt, Netherlands (schrier@knmi.nl)

**16:00 Coffee Break & Poster Sessions****17:00–19:00**

**Chairperson(s):** Martine Rebetez

**17:00–17:15: EMS2014-167**

The Summer Asian monsoon in the CMIP5 projections: A link between the change of extreme precipitation and the monsoon dynamics.

**Nicolas Freychet**, Chi-Hua Wu, Chia Chou, Huang-Hsiung Hsu  
Taiwan, Province Of China  
(nicolas.freychet@gmail.com)

**17:15–17:30: EMS2014-551**

Future regionalized precipitation and temperature of Mexico: CMIP5 versus CMIP3

**Martin Jose Montero-Martinez**, Mercedes Andrade-Velazquez  
Mexican Institute of Water Technology, Jiutepec, Mor. Mexico (martin\_montero@tlaloc.imta.mx)

**17:30–17:45: EMS2014-107**

The influence of global warming on extremes in wet-day frequency and wet/dry spell durations in Norway

**Reidun Gangstø**, Rasmus Benestad, Hans Olav Hygen  
MET Norway, The Norwegian Meteorological Institute, Oslo, Norway (reidung@met.no)

**17:45–18:00: EMS2014-166**

Precipitation changes in the Baltic countries in 1966-2013

**Jaak Jaagus**, Agrieta Briede, Egidijus Rimkus  
University of Tartu, Ecology and Earth Sciences, Geography, Tartu, Estonia (jaak.jaagus@ut.ee)

**18:00–18:15: EMS2014-289**

Precipitation trends and variability within the Eastern Mediterranean region for the 1961-2012

**Shifa Mathbout**, Joan Albert López Bustins, Juerg Luterbacher, Javier Martin vide  
Researcher in the Climatology Group at University of Barcelona

**18:15–18:30: EMS2014-332**

Nonstationary return levels for rainfall in Spain

**Sylvie Parey**, Francisco Javier Acero, Thi Thu Huong Hoang, Didier Dacunha-Castelle  
EDF, R&D, CHATOU, France (sylvie.parey@edf.fr)

**18:30–18:45: EMS2014-338**

Meteorological drought trends in Europe for the period 1950-2012

**Jonathan Spinoni**, Gustavo Naumann, Juergen Vogt, Paulo Barbosa  
European Commission, Joint Research Centre, Institute for Environment and Sustainability, Italy  
(jonathan.spinoni@jrc.ec.europa.eu)

**18:45–19:00: EMS2014-511**

Changes in the thermodynamic instability over the North-Atlantic European region and connection with changes in the rain showers in Romania

**Aristita Busuioc**, Marius-Victor Birsan, Daniel Victor Carbutaru, Madalina Baciuc, Alina Orzan, Cerasela Stoica  
National Meteorological Administration, Bucharest, Romania (aristita\_busuioc@yahoo.com)

**ORAL PROGRAMME UC1 continues Tuesday morning in Room Tycho**

## Numerical Weather Prediction

### NWP2 Numerical aspects and physical parametrization integration in NWP models

**Convener:** Petra Smolikova

**Co-Convener:** Daniel Reinert

**Lecture Room:** Leo + Virgo

**14:00–16:00**

**Chairperson(s):** Petra Smolikova

**14:00–14:15: EMS2014-238**

ICON - Towards operational numerical weather prediction

**Daniel Reinert**, Günther Zängl, Florian Prill and the ICON development Team  
German Weather Service, FE13, Offenbach am Main, Germany (daniel.reinert@dwd.de)

**14:15–14:30: EMS2014-263**

Multi-scale parameterization concept ALARO: an example of its concretization

**Radmila Brožková**, Jean-François Geleyn

ONPP/CHMI, Prague, Czech Republic

(radmila.brozkova@chmi.cz)

**14:30–14:45: EMS2014-279**

ACRANEB2 radiative transfer scheme - pushing the limits of broadband approach

**Ján Mašek**, Jean-François Geleyn, Radmila Brožková,

Tomáš Král, Olivier Giot, Haliima Okodel Achom, Peter Kuma

CHMI, Prague, Czech Republic (jan.masek@chmi.cz)

**14:45–15:00: EMS2014-416**

Extension of turbulent scheme with prognostic TKE towards higher order solutions - prognostic TPE and parametrisation of TOMs

**Ivan Bašták Ďurán**, Jean-François Geleyn, Filip Váňa

ONPP/CHMI, Praha, Czech Republic,

ivan.bastak@chmi.cz

**15:00–15:15: EMS2014-472**

Extending a dry turbulence scheme towards all moist aspects - main challenges, guidelines for maintaining consistency and practical solutions

**Jean-François Geleyn**, Ivan Bašták Ďurán, Pascal Marquet

CNRM, Météo-France, Toulouse, France

(jean-francois.geleyn@meteo.fr)

**15:15–15:30: EMS2014-417**

Persistency as a reference in determining rare event forecasting skill

**Iris Odak**, Zoran Pasaric

Meteorological and Hydrological Service, Zagreb,

Croatia (iris.odak@cirrus.dhz.hr)

**15:30–15:45: EMS2014-377**

Evaluation of high resolution WRF-ARW model simulations for Singapore region

**Jitendra Singh**, Kyongmin Yeo, Liu Xiao, Jayant R.

Kalagnanam

IBM Research Collaboratory Singapore

(jsingh@sg.ibm.com)

**15:45–16:00: Discussion****16:00 Coffee Break & Poster Sessions****17:00–17:30**

**Chairperson(s):** Daniel Reinert

**17:00–17:15: EMS2014-7**

Achieving seventh-order amplitude accuracy in leapfrog integrations

**Paul Williams**

University of Reading, Department of Meteorology,

Reading, United Kingdom (p.d.williams@reading.ac.uk)

**17:15–17:30: EMS2014-526**

Finite elements used in the vertical discretization of the fully compressible forecast model ALADIN-NH

Jozef Vivoda, **Petra Smolíková**, Karim Yessad, Pierre

Bénard, Álvaro Subías, Juan Simarro

CHMI, Prague, Czech Republic

**END OF ORAL PROGRAMME NWP2**

## NWP3 Data assimilation and use of observations in meteorology and oceanography

**Convener:** Alexander Cress

**Co-Convener:** Sarah Dance

**Lecture Room:** Leo + Virgo

**17:00–19:00**

**Chairperson(s):** Alexander Cress

**17:30–17:45: EMS2014-533**

High resolution data assimilation setup in ALADIN/CHMI

**Antonín Bučánek**, Alena Trojáková

ONPP/CHMI, Praha, Czech Republic

(antonin.bucanek@chmi.cz)

**17:45–18:00: EMS2014-548**

A comparison between the MetOffice ETKF (MOGREPS) and an ensemble of 4DEnVars

**Marek Wlasak**, Stephen Pring, Mohamed Jardak

Met Office, Data Assimilation, Exeter, United Kingdom

(marek.wlasak@metoffice.gov.uk)

**18:00–18:15: EMS2014-446**

Spectral Ensemble Kalman Filters

**Jan Mandel**, Ivan Kasanický, Martin Vejmelka, Viktor Fuglík, Marie Turčicová, Kryštof Eben, Jaroslav Resler,

Pavel Juruš

University of Colorado Denver, USA

(jan.mandel@gmail.com)

**18:15–18:30: EMS2014-248**

Generating high resolution area-wide precipitation fields from rain gauge measurements and satellite data

**Leda Pscheidt**, Petra Friederichs, Daniel Cooley,

Jennifer Hoeting

Meteorological Institute, University of Bonn, Bonn,

Germany (pscheidt@uni-bonn.de), Hans-Ertel Centre

for Weather Research - Climate Monitoring Branch,

Deutscher Wetterdienst, Offenbach, Germany

**18:30–18:45: EMS2014-273**

ADM-Aeolus: ESA's Novel Wind Mission

Anne Grete Straume, Paul Ingmann, **Dirk**

**Schuettemeyer**, Frank de Bruin, Anders Elfving,

Thomas Kanitz, Fabio Buscaglione, Wolfgang Lengert,

Bojan Bojkov, Angelika Dehn, Stefano Casadio

ESA, Mission Science Division, Noordwijk, Netherlands

(dirk.schuettemeyer@esa.int)

### 18:45–18:55: Short poster introductions (2 minutes per poster)

**END OF ORAL PROGRAMME NWP3**

## The Atmospheric System and its Interactions

### ASI11 Meteorological processes, atmospheric composition and pollution

**Convener:** Sylvain M. Joffre

**Co-Conveners:** Martin Piringer; Charles Chemel; Martijn Schaap; Alexander Baklanov

**Lecture Room:** Tycho

**14:00–16:00**

**Chairperson(s):** Charles Chemel

#### Regional/Global aspects

##### 14:00–14:15: EMS2014-24 (YSTA)

Identifying coupling Modes of Particulate Matter and Meteorological Fields through Singular Vector Decomposition

**João Carlos Teixeira**, Ana Cristina Carvalho, Maria João Carvalho, Alfredo Rocha  
CESAM - Department of Physics, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal. (jcmt@ua.pt)

##### 14:15–14:30: EMS2014-89

Modelling the radiative impacts of aerosol with a regional-scale air quality model

**Astrid Manders**, Bas Henzing, Lyana Curier, Arjo Segers, Martijn Schaap  
TNO, Climate, Air and Sustainability, Netherlands (astrid.manders@tno.nl)

##### 14:30–14:45: EMS2014-392

Impact of atmospheric dynamics and photochemistry on the interannual variability of NO<sub>2</sub> column over Europe based on GEM-AQ model simulation

**Karol Szymankiewicz**, Jacek W. Kaminski, Joanna Struzewska  
Warsaw University of Technology, Department of Environmental Engineering Systems, Warsaw, Poland (e-mail: karol\_szymankiewicz@is.pw.edu.pl)

##### 14:45–15:00: EMS2014-397

Impact of emission data on chemical weather forecast during iAREA project pre-campaign at Svalbard in March 2014

**Jacek W. Kaminski**, Joanna Struzewska, Maciej Jefimow, Pawel Durka  
Centre for Research in Earth and Space Science, York University, Toronto, Canada, EcoForecast Foundation, Warsaw, Poland

##### 15:00–15:15: EMS2014-111

Large-eddy simulation of turbulent winds during the Fukushima Daiichi Nuclear Power Plant accident by coupling with a meso-scale meteorological simulation model

**Hiromasa Nakayama**, Tetsuya Takemi, Haruyasu Nagai  
Japan Atomic Energy Agency, Ibaraki, Japan (nakayama.hiromasa@jaea.go.jp)

##### 15:15–15:30: EMS2014-359

Algae and pollen in ice cores from Altai glaciers as indicators of regional atmospheric circulations

**Elena Yu. Mitrofanova**, Tatyana S. Papina, Natalia S. Malygina, Anya Eichler, Pierre-Alain Herren, Margit Schwikowski  
Institute for Water and Environmental Problems SB RAS, Barnaul, Russian Federation (emit@iwepr.ru)

##### 15:30–15:45: EMS2014-146

Precipitation Scavenging of Gaseous Pollutants with Arbitrary Solubility in Inhomogeneous Atmosphere  
**Tov Elperin**, **Andrew Fominykh**, Boris Krasovtsov  
Ben-Gurion University of the Negev, Mechanical Engineering, Israel

##### 15:45–16:00: EMS2014-299

Observation of aerosol transfer over Russian lidar network after chelyabinsk meteorite falling in 2013  
**Alexander Cheremisin**, Pavel Novikov, Vladimir Ivanov, Dmitry Zubachev, Vladimir Korshunov, Vladimir Lapshin, Mihail Ivanov, Kirill Galkin, Petr Gubko, Dmitry Antonov, Georgy Tulinov, Semyon Nikolashkin, Valery Marichev  
Siberian Federal University, Krasnoyarsk, Russia (aacheremisin@gmail.com)

#### 16:00 Coffee Break & Poster Sessions

**17:00–19:00**

**Chairperson(s):** Martijn Schaap

#### Local/Sub-Regional aspects

##### 17:00–17:15: EMS2014-27

Large Eddy Simulation of the effect of trees on street canyon pollution dispersion

**Vladimir Fuka**, Tomáš Halenka, Josef Brechler  
Department of Meteorology and Env. Protect., Faculty of Math. and Phys., Charles University, Prague, Czech Republic (vladimir.fuka@mff.cuni.cz)

##### 17:15–17:30: EMS2014-660

Further refinement and evaluation of a statistical approach for determining concentration increments in urban areas

**Nicolas Moussiopoulos**, John Douros, George Tsegas, Eleftherios Chourdakis, Sandra Torras Ortiz  
Laboratory of Heat Transfer and Environmental Engineering, Aristotle University University Campus, Greece (moussio@eng.auth.gr)

##### 17:30–17:45: EMS2014-414

Minimization of air pollution monitoring cost in the urban area

**Hamid Taheri Shahraiyini**, Sahar Sodoudi, Ulrich Cubasch, Andreas Kerschbaumer  
Institut für Meteorologie, Freie Universität Berlin, Carl-Heinrich-Becker-Weg 6-10, 12165 Berlin, Germany., Faculty of Civil Engineering, Shahrood University, Shahrood, Iran

**17:45–18:00: EMS2014-262**

Comparative Analysis of Fog Prediction Algorithms via Use of WRF Model over Istanbul

**Merve Gokgoz**, Yasar Burak Oztaner, Alper Unal, Tayfun Kindap  
Istanbul Technical University, Eurasia Institute of Earth Science, Department of Climate and Marine Science, Istanbul, Turkey (gokgozmerve@gmail.com)

**18:00–18:15: EMS2014-597**

Effects on air quality over harbours due to the interplay between coastal microclimate and ship emissions

Stefania Del Frate, Irene Gallai, Dario B. Giaiotti, Elena Ganesini, Francesco Montanari, Alessandra Petrini, Alessandra Pillon, Tommaso Pinat, **Fulvio Stel**  
Regional Agency for the Environmental Protection of Friuli Venezia Giulia, Regional Center for Environmental Modeling, Palmanova, Italy (fulvio.stel@arpa.fvg.it)

**18:15–18:30: EMS2014-106**

Separation distances around livestock buildings derived with two models

**Martin Piringer**, Werner Knauder, Erwin Petz, Günther Schaubberger  
Central Institute for Meteorology & Geodynamics, Environmental Meteorology, Vienna, Austria (martin.piringer@zamg.ac.at)

**18:30–18:45: EMS2014-617**

Pollutant dispersion in a developing valley cold-air pool

**Charles Chemel**, Paul Burns  
National Centre for Atmospheric Science, University of Hertfordshire, Hatfield, United Kingdom (c.chemel@herts.ac.uk)

**18:45–19:00: EMS2014-408**

Impact of aerosol feedbacks on total solar radiation based on the on-line coupled climate model GEM-AC for current climate conditions

**Maciej Krystian Jefimow**, Joanna Struzewska, Jacek Kaminski  
Warsaw University of Technology, Department of Environmental Engineering, Warsaw, Poland (maciej\_jefimow@is.pw.edu.pl)

**END OF ORAL PROGRAMME ASI11****ASI13 Energy Meteorology**

**Convener:** Sven-Erik Gryning

**Co-Conveners:** Ekaterina Batchvarova; Marion Schroedter-Homscheidt; Lucien Wald

**Lecture Room:** Nadir

**14:00–16:00**

**Chairperson(s):** Marion Schroedter-Homscheidt

**14:00–14:15: EMS2014-378**

Climate change impact on European photovoltaic power production: insights from Euro-Cordex

**Sonia Jerez**, Robert Vautard, Isabelle Tobin, Juan Pedro Montávez, Jose María López-Romero, Françoise Thais, Martin Wild, Klaus Keuler, Michal Belda, Ole Bøssing Christensen, Erik van Meijgaard, Samuel Somot, Michel Déqué  
Department of Physics, University of Murcia, Spain

**14:15–14:30: EMS2014-404**

Can chemical transport models improve global horizontal irradiance forecasts?

Marek Brabec, **Ondřej Konár**, Jaroslav Resler, Pavel Krč, Emil Pelikán, and Kryštof Eben  
Institute of Computer Science, Prague, CZ, (konar@cs.cas.cz)

**14:30–14:45: EMS2014-253**

On the induced uncertainties in direct normal irradiance calculations under cloud-free conditions due to aerosol optical depth from MACC re-analysis data

Vassileios Salamalikis, Blanc Philippe, **Andreas Kazantzidis**  
Laboratory of Atmospheric Physics, Physics Department, University of Patras, Greece (akaza@upatras.gr)

**14:45–15:00: EMS2014-516**

A new method of MSG images processing for hourly solar radiation assessment.

**Samuel Quesada-Ruiz**, Alvaro Linares-Rodriguez, Clara Arbizu-Barrena, Mercedes Martinez-Durban, Francisco Santos-Alamillos, Joaquín Alonso, David Pozo-Vazquez, Jaquin Tovar-Pescador  
Dept of Physics, Univ. of Jaén, Spain

**15:00–15:15: EMS2014-29**

Solar resource assessment in the Alps: a comparison of available datasets for the Trentino region

**Lavinia Laiti**, Lorenzo Giovannini, Luca Panziera, Dino Zardi  
University of Trento, Civil, Environmental and Mechanical Engineering Department, Trento, Italy

**15:15–15:30: EMS2014-157**

Satellite-based PV potential climatology for Alpine Regions

**Jochen Wagner**, Reto Stöckli, Anke Tetzlaff, Martial Duguay, Marc Zebisch  
EURAC Research, Institute for Applied Remote Sensing, Bolzano, Italy

**15:30–15:45: EMS2014-42**

A new approach for estimating Photosynthetically Active Radiation in clear sky conditions

**William Wandji Nyamsi**, Bella Espinar, Philippe Blanc, Lucien Wald  
MINES ParisTech, Sophia Antipolis, France (william.wandji\_nyamsi@mines-paristech.fr)

**15:45–16:00: EMS2014-426**

Solar Resource Assessment with Rotating Shadowband Irradiometers (RSI)

Norbert Geuder, **Birk Kraas**, Eckhard Lüpfer, Klaus Pottler  
CSP Services, Cologne, Germany

**16:00 Coffee Break & Poster Sessions**

**17:00–19:00**

**Chairperson(s):** Lucien Wald

**17:00–17:15: EMS2014-160**

Performance Evaluation of Radiation Sensors for the Solar Energy Sector

**Laurent Vuilleumier**, Mathias Hauser, Christian Félix, Dominique Ruffieux, Bertrand Calpini  
Federal Office of Meteorology and Climatology, MeteoSwiss, Payerne, Switzerland  
(laurent.vuilleumier@meteoswiss.ch)

**17:15–17:30: EMS2014-30**

Small-scale solar irradiance nowcasting with sky imager pictures

**Thomas Schmidt**, John Kalisch, Elke Lorenz  
Energy Meteorology, Carl-von-Ossietzky University of Oldenburg, Oldenburg, Germany  
(t.schmidt@uni-oldenburg.de)

**17:30–17:45: EMS2014-34 (YSTA)**

Computation Of Cloud Motion For Solar Irradiance Prediction

**Rogiros Tapakis**, Alexandros Charalambides  
Cyprus University of Technology, Department of Environmental Science and Technology, Cyprus  
(rd.tapakis@edu.cut.ac.cy)

**17:45–18:00: EMS2014-610**

A preliminary study on short-term predictability of solar surface irradiance over Italian Peninsula for photovoltaic energy production

**Christian Lanconelli**, Tony Christian Landi, Boyan Petkov, Angelo Lupi, Mauro Mazzola, Vito Vitale, Paolo Bonasoni, Maurizio Busetto, Paolo Cristofanelli, Piero Malguzzi, Andrea Buzzi, Monica Campanelli, Stefano Dietrich, Stefano Federico, Claudia Roberta Calidonna, Anna Maria Sempreviva  
Institute of the Atmospheric Sciences and Climate, National Research Councils, Italy  
(c.lanconelli@isac.cnr.it)

**18:00–18:15: EMS2014-252**

Development of a neural network model of cloudiness forecasting for solar energy purposes in Greece

**Andreas Kazantzidis**, Athanassios Zagouras, Vasileios Salamalikis, Efterpi Nikitidou  
Laboratory of Atmospheric Physics, Physics Department, University of Patras, Greece  
(akaza@upatras.gr)

**18:15–18:30: EMS2014-547**

Using cloud fraction derived from all-sky camera to improve beam solar irradiance forecasting by time-series modeling

Nicolas Nitche, Pierre-Julien Trombe, **Sylvain Cros**  
Reuniwatt, Sainte-Clotilde, France  
(sylvain.cros@reuniwatt.com)

**18:30–18:45: EMS2014-316**

Short-term forecasting of cloud movement & irradiance changes using ground-based sky cameras

Samuel West, Saad Sayeef, Peter Coppin, **Jing Huang**  
CSIRO Division of Marine and Atmospheric Research, Canberra, Australia

**18:45–19:00: EMS2014-576**

Satellite-based solar irradiance and photovoltaic (PV) production forecasting on Reunion Tropical Island  
**Jordi Badosa**, Martial Haeffelin, Elke Lorenz, Genevieve Seze, Natacha Kalecinski, Jean Mathorel  
Laboratoire de Météorologie Dynamique, Palaiseau, France

**ORAL PROGRAMME ASI13 continues Tuesday morning.**

**Side Meetings & Workshops**

**SIM1 Remote Sensing in Climatology (public)**

**Convener:** Richard Müller

**Lecture Room:** Aquarius

**14:00–19:00**

**SIM6 Communications workshop for European weather services (by invitation only)**

**Convener:** Michael Williams

**Co-Convener:** Tanja Cegnár

**Lecture Room:** Taurus

**14:00–19:00**

## European Conference on Applied Climatology (ECAC)

### Understanding processes and climate change

#### UC1 Climate change detection, assessment of trends, variability and extremes

**Convener:** Albert M.G. Klein Tank

**Co-Conveners:** Martine Rebetez; Monika Lakatos

**Poster Area:** Meridian Left Front

**Chairperson(s):** Albert Klein Tank

**Attendance Time:** 16:00–17:00

##### LF1: EMS2014-251

Imprints of climate forcings in local and global temperature series

**Jiří Mikšovský** and Petr Pišoft

Charles University, Faculty of Mathematics and Physics, Dept. of Meteorology, Prague, Czech Republic  
(jiri.miksovsky@mff.cuni.cz)

##### LF2: EMS2014-206

CMIP5 - performance and Climate Change assessment of maximum and minimum temperatures in Europe

**Maria João Carvalho**, Alfredo Rocha, Paulo Melo-Gonçalves

University of Aveiro, Dept. of Physics, Aveiro, Portugal  
(mariajcarvalho@ua.pt)

##### LF3: EMS2014-322

An assessment of reliability in climate projections of CMIP5 models: A cloud variation perspective

**Sun-Hee Shin**, Myong-In Lee, Ok-Yeon Kim

APEC Climate Center, Busan, Republic of Korea  
(ssh222@apcc21.org)

##### LF4: EMS2014-489

About the Clouds and Climate Change

**Sabina Stefan**, Cristinel Grigoras, Ioana Ungureanu, Simona Patrut

University of Bucharest, Faculty of Physics, Bucharest, Romania (sabina\_stefan@yahoo.com)

##### LF5: EMS2014-475

Observed changes in daily climate extremes of temperature and precipitation in the Carpathian Region

**Mónika Lakatos**, Zita Bihari, Tamás Szentimrey, Sándor Szalai

Hungarian Meteorological Service, Budapest, Hungary  
(lakatos.m@met.hu)

##### LF6: EMS2014-188

Variability of precipitation in northern Serbia

**Ivana Tosic**, Miroslava Unkasevic, Ivana Hrnjak, Milivoj Gavrilov, Slobodan Marković, Tin Lukić

University of Belgrade-Faculty of Physics, Dept. for Meteorology, Belgrade, Serbia (itosic@ff.bg.ac.rs)

##### LF7: EMS2014-80

Changes in indices of temperature extremes in Croatia, 1961-2010

**Ksenija Zaninovic**, Ksenija Cindric

Meteorological and Hydrological Service of Croatia, Climatological research and biometeorology, Zagreb, (zaninovic@cirus.dhz.hr)

##### LF8: EMS2014-190

Monthly scale in spatial analyses of trends in heating and cooling demands in Croatia

**Lidija Cvitan**, Renata Sokol Jurković

Meteorological and hydrological service, Research and development division, Zagreb, Croatia  
(cvitan@cirus.dhz.hr)

##### LF9: EMS2014-302

Analysis of the extraordinary 2011/2012 drought in Croatia

**Ksenija Cindrić**, Maja Telišman-Prtenjak, Ivana

Herceg Bulić, Domagoj Mihajlović  
Croatian Meteorological and Hydrological Service, Zagreb, Croatia (cindric@cirus.dhz.hr)

##### LF10: EMS2014-630

Relationship of radar and hail parameters in the continental part of Croatia

**Damir Pocakal**

Meteorological and Hydrological Service of Croatia, Head of Analysis Section, Croatia  
(dhmz-rc@vz.t-com.hr)

##### LF11: EMS2014-94

Climate change and variability in Slovenia from 1961 to 2011

**Gregor Vertačnik**, Mojca Dolinar, Renato Bertalančič

Slovenian Environment Agency, Ljubljana, Slovenia  
(gregor.vertacnik@gov.si)

##### LF12: EMS2014-150

The growing season in Carpathian region during 1961-2010

**Olesia Skrynyk**, Yurii Nabyvanets, Valeriia Savchenko, Oleg Skrynyk

National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine (skrynyk\_olesya@rumbler.ru)

##### LF13: EMS2014-410

Analysis of extreme wind speed indices for Hungary using homogenized data series

**Csilla Peline Nemeth**, Judit Bartholy, Rita Pongrácz, Kornélia Radics

Geoinformation Service of HDF, Budapest, Hungary  
(pelinenemeth.csilla@mhtehi.gov.hu)

##### LF14: EMS2014-431

Extreme high temperature events in the Czech Republic in the period 1961-2010: frequency, intensity and climatological characteristics.

**Eva Holtanová**, Anna Valeriánová, Lenka Chrová, Miloslav Müller, Marek Kašpar

Czech Hydrometeorological Institute, Climatology, Prague, Czech Republic (holtanova@chmi.cz)



**LF15: EMS2014-442**

Are the extreme cold events in the Czech Republic milder and less frequent and abnormally warm events in increase?

**Lenka Crhová**, Eva Holtanová, Anna Valeriánová, Martin Stříž  
Czech Hydrometeorological Institute, Climatology,  
Prague, Czech Republic (lenka.crhova@chmi.cz)

**LF16: EMS2014-448**

Climatology of extreme precipitation events in the Czech Republic in the period 1961-2010

**Anna Valeriánová**, Lenka Crhová, Eva Holtanová, Miloslav Müller, Marek Kašpar, Martin Stříž,  
Czech Hydrometeorological Institute, Climatology,  
Prague, Czech Republic (anna.valerianova@chmi.cz)

**LF17: EMS2014-637**

Changing amounts or spatio-temporal distribution? The study of precipitation trends and the occurrence of extreme precipitation events in the region of Southern Moravia (SE part of the Czech Republic) in the period 1961-2013

**Marie Doleželová**  
Czech Hydrometeorological Institute, Regional Office  
Brno

**LF18: EMS2014-471**

Climatology of low-level temperature inversions at the Prague-Libuš aerological station

**Jan Stryhal**, Radan Huth, Ivan Sládek  
Department of Physical Geography and Geoecology,  
Faculty of Science, Charles University, Prague, Czech  
Republic

**POSTER PROGRAMME UC1 continues on Tuesday**

## Numerical Weather Prediction

### NWP2 Numerical aspects and physical parametrization integration in NWP models

**Convener:** Petra Smolikova

**Co-Convener:** Daniel Reinert

**Poster Area:** Meridian Left Back

**Chairperson(s):** Daniel Reinert

**Attendance Time: 16:00–17:00**

**LB19: EMS2014-300**

Sensitivity of high resolution simulations over central Greece to WRF parameterisations

**Ioannis Tegoulis**, Ioannis Pytharoulis, Stylianos Kotsopoulos, Dimitrios Bampzelis, Stergios Kartsios, Theodore Karacostas  
Department of Meteorology and Climatology, School of Geology, Aristotle University of Thessaloniki, Greece  
(tegoulia@auth.gr)

**LB20: EMS2014-384**

The impact of Sea-Surface Temperatures on Numerical Weather Predictions

**Ioannis Pytharoulis**, Ioannis Tegoulis, Stelios Kotsopoulos, Theodore Karacostas  
Laboratory of Meteorology and Climatology, School of Geology, Faculty of Thessaloniki, Greece  
(pyth@geo.auth.gr)

**LB21: EMS2014-657**

Parameterization of cumulus convective clouds in large scale models based on dynamically balanced LES datasets

**Yefim Kogan**

The University of Oklahoma, Meteorology, United States(ykogan@ou.edu)

**END OF POSTER PROGRAMME NWP2**

### NWP3 Data assimilation and use of observations in meteorology and oceanography

**Convener:** Alexander Cress

**Co-Convener:** Sarah Dance

**Poster Area:** Meridian Left Back

**Chairperson(s):** Alexander Cress

**Attendance Time: 16:00–17:00**

**LB22: EMS2014-470**

Joint development and operations of Numerical Weather Prediction (Norway and Sweden)

**Solfrid Agersten**, Morten Kølitzow, Bo Strandberg  
Norwegian Meteorological Institute, Oslo, Norway  
(solfrid.agersten@met.no)

**LB23: EMS2014-117**

Cloudiness estimation from satellite and ground observations

**Joaquín Alonso**, Samuel Quesada-Ruiz, Mercedes Martínez-Durbán, Joaquín Tovar-Pescador, Francisco J. Battles, David Pozo-Vázquez  
Department of Chemistry and Physics, University of Almería, 04120, Almería, Spain., Ciesol, Join Centre University of Almería-CIEMAT, 04120, Almería, Spain

**LB24: EMS2014-269**

Adjoint-based observation impact and optimization of error covariances in the Korea Meteorological Administration Unified Model-4DVAR system

**Sung-Min Kim**, Hyun Mee Kim, Sang-Won Joo, Yoonjae Kim, Dongjoon Kim, Eun-Jung Kim  
Yonsei, Atmospheric Science, Seoul, Republic of Korea  
(mdrizzle@yonsei.ac.kr; khm@yonsei.ac.kr)

**LB25: EMS2014-433**

Upgrading of the solar irradiance measuring network in Croatia in frame of the EU-IPA project ENHEMS-Buildings

**Josipa Kuzmić**, Davor Tomšić, Alica Bajić, Igor Horvat, Zvonimir Jakopović, and Eduard Špoljar  
Croatian Meteorological and Hydrological Service, Zagreb, Croatia

**END OF POSTER PROGRAMME NWP3**

## The Atmospheric System and its Interactions

### ASI11 Meteorological processes, atmospheric composition and pollution

**Convener:** Sylvain M. Joffre

**Co-Conveners:** Martin Piringer; Charles Chemel; Martijn Schaap; Alexander Baklanov

**Poster Area:** Meridian Right Front

**Chairperson(s):** Martin Piringer

**Attendance Time:** 16:00–17:00

#### RF15: EMS2014-4

High resolution dynamical-climate modeling of the upper troposphere and lower stratosphere region over Europe: GEM-AC simulations for current climate with and without aviation emissions.

**Magdalena Porebska**, Joanna Struzewska, Jacek W. Kaminski

Warsaw University of Technology, Environmental Engineering, Warsaw, Poland  
(magdalena.porebska@is.pw.edu.pl)

#### RF16: EMS2014-361

The Ambient Air Quality Change during Typhoon Period in the Korean Peninsula

**Suk-Hee Ahn**, Seung-Wook Lee, Ki-Jun Park, Jeoung-Yun Kim, Baek-Jo Kim

Policy research division, National Institute of Meteorological Research (NIMR), Republic of Korea  
(ahnsh@korea.kr)

#### RF17: EMS2014-372

Traffic Emissions And Solar Radiation Effect On Formation Of The Ozone

**Deniz Hazel Diren**, Hüseyin Toros

Istanbul Technical University, Faculty of Aeronautics and Astronautics, Department of Meteorological Engineering, Istanbul, Turkey, (toros@itu.edu.tr)

#### RF18: EMS2014-394

Assessment of Air Pollution Distribution in Kirikkale with Dispersion Model

**Ayşenur Bozer**, Gizem Nur Kandilci, Emre Korkmaz, Hüseyin Toros

Istanbul Technical University, Faculty of Aeronautics and Astronautics, Department of Meteorology, Istanbul, Turkey (aysenur\_bozer@hotmail.com)

#### RF19: EMS2014-406

Evaluation of Dispersion Model: A case study of Air Pollution Dispersion in Eskişehir

**Gizem Nur Kandilci**, Ayşenur Bozer, Emre Korkmaz, Hüseyin Toros

Istanbul Technical University, Faculty of Aeronautics and Astronautics, Department of Meteorology, Istanbul, Turkey (gkandilci@hotmail.com)

#### RF20: EMS2014-347

The Effects of Meteorological Parameters on Air Pollution in a Megacity, Istanbul

**Beytiye Derya Aydin**

Istanbul Technical University, Graduate School of Science Engineering and Technology, Atmospheric Science, Istanbul, Turkey (aydiinderya@gmail.com)

#### RF21: EMS2014-582

Modeling of birch pollen concentrations using Enviroware

**Alexander Kurganskiy**, Alexander Mahura, Roman Nuterman, Alix Rasmussen, Alexander Baklanov, Sergei Smyshlyaev, Eigil Kaas

Russian State Hydrometeorological University (RSHU), Saint-Petersburg, Russian Federation (rshu@rshu.ru), Niels Bohr Institute of University of Copenhagen (NBI UoC), Copenhagen, Denmark (rf-reception@nbi.ku.dk)

#### RF22: EMS2014-151

Modelling of Cs-137 accidental release after Chornobyl over Ukraine

**Oleg Skrynyk**, Yurii Hrytsyuk

Ukrainian Hydrometeorological Institute, Physics of Atmosphere, Kyiv, Ukraine (skrynyk@univ.kiev.ua)

#### RF23: EMS2014-54

Differences among ozone lamina characteristics expressed in partial pressure and mixing ratio

**Peter Krizan**, Michal Koziubek

Institute of Atmospheric Physics, Prague, Czech Republic (krizan@ufa.cas.cz)

#### RF25: EMS2014-222

Trend Analysis in the MODIS Aerosol Optical Depth over Turkey

**Yasar Burak Oztaner**, Burcu Guney, Ceyhan Kahya

Istanbul Technical University, Eurasia Institute of Earth Science, Department of Climate and Marine Science, Istanbul, Turkey (oztaner@itu.edu.tr)

#### RF26: EMS2014-86

UV and Global solar irradiance measurements and analysis during the Marsaxlokk (Malta) campaign

**Julia Bilbao**, Roberto Román, Charles Yousif, David Mateos, Argimiro de Miguel

Valladolid University, Science Faculty, Valladolid, Spain (juliab@fa1.uva.es)

#### RF27: EMS2014-16

Characterization of air flow patterns at the Atmospheric Station KÁešín u Pacova

**Kateřina Hořková**, Pavel Sedlák, Alice Dvorská, and Pavel Prošek

Department of Geography, Faculty of Science, Masaryk University, Brno, Czech Republic

#### END OF POSTER PROGRAMME ASI11

## ASI13 Energy Meteorology

**Convener:** Sven-Erik Gryning

**Co-Conveners:** Ekaterina Batchvarova; Marion Schroedter-Homscheidt; Lucien Wald

**Poster Area:** Meridian Right Back

**Chairperson(s):** Sven-Erik Gryning

**Attendance Time:** 16:00–17:00

### RB2: EMS2014-148

How to optimize the overproduction of photovoltaic electricity into the grid with the utilization of ICT infrastructure - The Orpheus project  
Ingrid Weiss, **Marion Schroedter-Homscheidt** and the Orpheus Consortium Team  
DLR, German Remote Sensing Data Center, Wessling, Germany (marion.schroedter-homscheidt@dlr.de)

### RB3: EMS2014-484

Solar radiation forecast verification and post processing.  
**Tomislav Kovačić**, Igor Horvat, Mario Hrastinski, Kristian Horvath, Stjepan Ivatek Šahdan, and Antonio Stanešić  
Meteorological and Hydrological Service, Zagreb, Croatia

### RB4: EMS2014-312

Solar irradiance modelling over Belgium using Regional models within the frame of a day-ahead photovoltaic production forecasting system  
**Julien Beaumet**, Sébastien Doutreloup, Xavier Fettweis, Aline Hermans, Michel Erpicum  
Laboratoire de Climatologie et Topoclimatologie, Université de Liège, Liège, Belgium  
(julien.beaumet@ulg.ac.be)

### RB5: EMS2014-520

Combining WRF wind estimates and MSG CMV for improving short term solar radiation forecast reliability  
**Samuel Quesada-Ruiz**, Clara Arbizu-Barrena, Alvaro Linares-Rodríguez, Javier Rodríguez-Benitez, Jose Antonio Ruiz-Arias, David Pozo-Vazquez, Francisco Javier Batlles, Joaquín Tovar-Pescador  
Dept of Physics, Univ. of Jaén, Spain

### RB6: EMS2014-441

Yearly changes in solar radiation over New Caledonia and relations with changing atmospheric properties  
Philippe Blanc, **Lucien Wald**  
MINES ParisTech, Sophia Antipolis cedex, France  
(lucien.wald@mines-paristech.fr)

### RB7: EMS2014-556

Advantages and drawbacks of a statistical clear-sky model: a case study with photovoltaic power production data  
**Sylvain Cros**, Olivier Liandrat, Nicolas Schmutz  
Reuniwatt, Sainte-Clotilde, France  
(sylvain.cros@reuniwatt.com)

### RB8: EMS2014-249

Analysis of results from the COST ES1002 DNI inter-comparison based on cloud detection from all-sky cameras  
Maria Christina Kotti, Laurent Vuilleumier, **Andreas Kazantzidis**, Mathias Hauser, Panagotis Tzoumanikas  
Laboratory of Atmospheric Physics, Department of Physics, University of Patras, Patras, Greece  
(akaza@upatras.gr)

### RB9: EMS2014-45

Wind energy potential in North-Western of Poland  
**Monika Lisowska**, Elwira Żmudzka  
University of Warsaw, Faculty of Geography and Regional Studies, Department of Climatology, Warsaw, Poland (mlisowska@uw.edu.pl)

### RB10: EMS2014-304

Offshore wind potential over the Iberian Peninsula simulated by the COSMO-CLM regional model  
Carolina Fernandes, Margarida L. R. Liberato, **João A. Santos**, Joaquim G. Pinto  
Centre for the Research and Technology of Agro-Environmental and Biological Sciences, Universidade de Trás-os-Montes e Alto Douro, Vila Real, jsantos@utad.pt

**POSTER PROGRAMME ASI13 continues on Tuesday**



# Public Great Debate at Charles University

07 October 2014, 18:00

## Climate Change: reality without myths

Panel discussion on climate change issues  
and consequences – how to cope with them

Panelists:

D. Jacob (Head of Climate Services Centre, Hamburg)

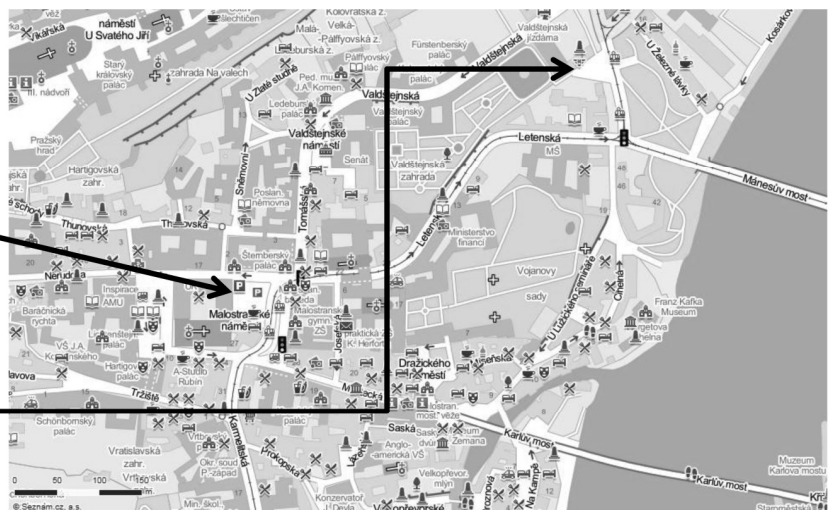
R. Benestad (MET Norway, RealClimate)

Venue:

House for Professed, Great Hall  
(Faculty of Mathematics and  
Physics, Charles University),  
Malostranské náměstí 25, Praha 1  
– Mala Strana

How to get there:

from Clarion hotel use  
underground line B, at Mustek  
change to line A for two stops to  
Malostranská. Walking distance (10  
min) or by tram No. 12, 20, 22 (one  
stop to Malostranske namesti)



Tuesday, 07 October 2014						
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius
08:30–10:30	<b>SE2: Host topical session:</b> CORDEX: From climate science to climate services <i>until 11:00</i>	<b>ASI13:</b> Energy Meteorology	<b>NWP4:</b> Probabilistic and ensemble forecasting at short and medium-range	<b>UC1:</b> Climate change detection <i>until 10:00</i> <b>UC5:</b> Synoptic climatology <i>10:00–10:30</i>	<b>CE1:</b> Media & Communication with Workshop for European weather services	
10:30–11:30	<b>Poster Session &amp; Coffee Break   Foyer and Room Meridian</b>  <i>Poster authors in attendance time for the following sessions:</i> ECAC programme group: <b>UC1</b> (LF19 - LF31), <b>UC5</b> (LB1 - LB9), <b>SE2</b> (LB10 + LB11), <b>SE4</b> (LB12) ASI programme group: <b>ASI13</b> (RB11 - RB19) CE programme group: <b>CE1</b> (RB1) NWP programme group: <b>NWP4</b> (LB26 - LB30)					
11:30–13:00	<b>SE4:</b> European collaborative projects towards climate services <i>12:00–13:00</i>	<b>ASI13</b>	<b>NWP4</b>	<b>UC5</b>	<b>CE1</b>	<b>SIM2:</b> EUMETNET climate expert team meeting
13:00	Lunch Break					
14:00–15:00	<b>Award Ceremonies:</b> <i>Young Scientist Travel Awards</i> <i>Outstanding Poster Award EMS &amp; ECAM 2013</i> <i>EMS Young Scientist Award</i> <i>EMS Media Awards</i> <i>EMS Silver Medal: Laudatio and Silver Medal Lecture</i> Detailed programme: see page 11				<b>SIM6:</b> Workshop for European weather services	<b>SIM2</b>
15:00	Coffee Break					
15:30–17:30	<b>SE4</b>	<b>ASI13</b>	<b>NWP4</b>		<b>SIM6</b>	<b>SIM5:</b> PSC: EMS & ECAM 2015 (by invitation only)
17:40	<b>Horizon2020 Information session</b> <b>Room Zenit</b> <i>17:40–18:40</i>		<b>Public debate on climate change</b> <b>at Charles University</b> <i>18:00, for details: see page 32</i>			<b>SIM11:</b> RCC Network coordination meeting
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius

In the detailed daily programme (on pages 34 to 44) the related ECAC, ASI, CE and NWP sessions are listed in the following order: UC1, UC5, SE2, SE4, CE1, NWP4, ASI13.

## Special Events

### SPS2 Award Ceremony

Lecture Room: Zenit

14:00–15:00

The following awards will be presented:

- EMS Young Scientist Travel Awards
- Outstanding Poster Award EMS&ECAM 2013
- EMS Young Scientist Award
- EMS Media Awards
- Harry Otten Prize – Announcement 2015
- EMS Silver Medal

For details of the programme see page 11.

### SPS6 Horizon2020 information session (plenary)

Lecture Room: Zenit

17:40–18:40

Presentation on Horizon2020

**Andrea Tilche**

DG Research and Innovation

Head of Unit, Climate Action and Earth Observation

## European Conference on Applied Climatology (ECAC)

### Understanding processes and climate change

#### UC1 Climate change detection, assessment of trends, variability and extremes

**Convener:** Albert M.G. Klein Tank

**Co-Conveners:** Martine Rebetez; Monika Lakatos

**Lecture Room:** Tycho

08:30–10:30

**Chairperson(s):** Albert Klein Tank

08:30–08:45: EMS2014-380

Assessment of the wind speed variability over the Iberian Peninsula using a high-resolution climatic database

**Raquel Lorente-Plazas**, Juan Pedro Montávez, Sonia Jerez, Juan José Gómez-Navarro, Pedro Jiménez-Guerrero, Pedro Ángel Jiménez Murcia, Physics, Murcia, Spain (lorente.plazas@gmail.com)

08:45–09:00: EMS2014-465

Assessment of wet/dry conditions in Iberia using WASP-Index

**Cristina Andrade**, Margarida Belo-Pereira Polytechnic Institute of Tomar, Mathematics and Physics Department, Tomar, Portugal (c.andrade@ipt.pt), Centre for the Research and Technology of Agro-Environmental and Biological Sciences, University of Trás-os-Montes e Alto Douro, Vila Real, Portugal

09:00–09:15: EMS2014-478

The exceptional snow accumulation of winter 2013-14 and the possible response of small glacial bodies: the case study of the Julian Alps (southeastern alpine chain)

**Renato R. Colucci**, Stefano Micheletti, Roberto Medeossi, Daniele Moro, Marcellino Salvador, Livio Stefanuto Department of Earth System Sciences and Environmental Technologies, ISMAR-CNR, Trieste, Italy (r.colucci@ts.ismar.cnr.it), UMFVG, Meteorological Union of F.V.G., Italy

09:15–09:30: EMS2014-635

Observed impact of temperature increase on the altitude of snowfall and snow pack in the Swiss Alps

**Martine Rebetez**, Gaelle Serquet, Geoffrey Klein, Christoph Marty WSL Swiss Federal Research Institute, Neuchatel, Switzerland

09:30–09:45: EMS2014-70

Monthly Trend Analysis of Snowfall/Precipitation Day Around Southeastern Anatolia Project (GAP) in Turkey

**Evren Özgür**, Kasim Koçak Istanbul Technical University, Faculty of Aeronautics and Astronautics, Department of Meteorology, Maslak, Istanbul, Turkey (ozgurev@itu.edu.tr; kkocak@itu.edu.tr)

09:45–10:00: EMS2014-91

Concurrency and climate change signal in Scottish flooding

**Andrew Harding**, Adam Butler, Douglas Bertram, Nigel Goody, Nikki Baggaley, Simon Tett ClimateXChange, University of Edinburgh, Edinburgh, United Kingdom (andrew.harding@ed.ac.uk)

END OF ORAL PROGRAMME UC1

## UC5 Synoptic climatology

**Convener:** Radan Huth  
**Co-Convener:** Rasmus Benestad  
**Lecture Room:** Tycho

**08:30–10:30**

**Chairperson(s):** Rasmus Benestad

**10:00–10:15: EMS2014-211**

Local climate extremes and their linkage to large-scale atmospheric features

**Arne Spekat**, Wolfgang Enke  
 Climate and Environment Consulting Potsdam GmbH,  
 Potsdam, Germany (arne.spekat@cec-potsdam.de)

**10:15–10:30: EMS2014-336**

Large local temperature changes versus passages of atmospheric fronts: a case study for Prague  
**Vladimír Piskala**, **Radan Huth**  
 Charles University, Faculty of Science, Dept. of Physical Geography and Geocology, Praha 2, Czech Republic (huth@ufa.cas.cz), Institute of Atmospheric Physics, Praha, Czech Republic

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Radan Huth

**11:30–12:00: EMS2014-440**

Factors influencing European wind storm occurrence on different time scales - from synoptic to centennial perspectives (solicited)  
**Gregor C. Leckebusch**, Daniel J. Bafort, Uwe Ulbrich  
 University of Birmingham, School of Geography, Earth and Environmental Sciences, Birmingham, United Kingdom (g.c.leckebusch@bham.ac.uk)

**12:00–12:15: EMS2014-73**

Satellite Based Climatology of (Sub-) Tropical Cyclones in Europe  
**Alois M. Holzer**, Pieter Groenemeijer  
 ESSL, European Severe Storms Laboratory, Wiener Neustadt, Austria (alois.holzer@essl.org)

**12:15–12:30: EMS2014-560**

The relationship between atmospheric circulation and air temperature at different isobaric levels over Europe  
**Agnieszka Wypych**, **Zbigniew Ustrnul**, Sławomir Szot, Marek Kosowski, Danuta Czekierda  
 Jagiellonian University, Krakow, Poland

**12:30–12:45: EMS2014-659**

Variability of Atmospheric Circulation Patterns associated with major inflows to the Baltic Sea  
**Piia Post**, Andreas Lehmann  
 Institute of Physics, University of Tartu, Tartu, Estonia (piia.post@ut.ee)

**12:45–13:00: EMS2014-382**

Synoptic patterns and extreme wave heights in Eastern Mediterranean

**Christina Anagnostopoulou**, Panagiota Galiatsatou, Effie Rousi, Panagiotis Prinos, Gerassimos Athanassoulis, Konstantia Tolika  
 Aristotle University of Thessaloniki, Dept. of Meteorology and Climatology, Thessaloniki, Greece (chanag@geo.auth.gr)

**END OF ORAL PROGRAMME UC5**

## Research and services for socio-economic sectors

### SE2 Host topical session: From climate science to climate services: CORDEX

**Convener:** Tomas Halenka  
**Co-Convener:** Daniela Jacob  
**Lecture Room:** Zenit

**08:30–11:00**

**Chairperson(s):** Daniela Jacob

**08:30–09:00: EMS2014-627**

The Euro-CORDEX initiative: A new generation of regional climate scenarios for Europe (solicited)  
**Andreas Gobiet**, Daniela Jacob, Claas Teichmann, Heimo Truhetz, Andreas Prein  
 University of Graz, Wegener Center for Climate and Global Change, Graz, Austria (andreas.gobiet@uni-graz.at)

**09:00–09:15: EMS2014-592**

On the comparison of EuroCORDEX and ENSEMBLES RT3 ensembles  
**Tomas Halenka**, Michal Belda, Zuzana Klukova, Jaroslava Kalvova, Petr Skalak  
 Charles University in Prague, Prague, Czech Republic (tomas.halenka@mff.cuni.cz)

**09:15–09:30: EMS2014-513**

Evaluating RegCM4 surface climatology over the EURO-CORDEX domain  
**Ivan Güttler**, Čedo Branković, Lidija Srnc  
 Meteorological and Hydrological Service, Department for Climatological Research and Applied Climatology, Zagreb, Croatia (ivan.guettler@cirus.dhz.hr)

**09:30–09:45: EMS2014-178**

Field Significance of Performance Measures in the Context of Regional Climate Model Verification  
**Martin Ivanov**, Kirsten Warrach-Sagi, Volker Wulfmeyer  
 ETH Zürich, Zürich, Switzerland (martin.ivanov@env.ethz.ch), Water and Earth System Science Competence Cluster (WESS), University of Tübingen, Tübingen, Germany

**09:45–10:00: EMS2014-624**

On the urban land-surface impact on climate in higher resolution over Central Europe  
**Peter Huszar**, Tomas Halenka, Michal Belda, Katerina Zemankova, Michal Zak  
 Charles University in Prague, Prague, Czech Republic  
 (tomas.halenka@mff.cuni.cz)

**10:00–10:15: EMS2014-643**

Climate change signal in an ensemble of bias-corrected regional climate scenarios for Europe  
**Renate Wilcke**, Grigory Nikulin, Lars Bärring, Erik Kjellström  
 Rossby Centre, Swedish Meteorological and Hydrological Institute, Norrköping, Sweden,  
 rena.wilcke@smhi.se

**10:15–10:30: EMS2014-596**

Climate classification for Euro-CORDEX simulations integrated assessment  
**Michal Belda**, Tomas Halenka, Jaroslava Kalvova, Eva Holtanova  
 Charles University in Prague, Prague, Czech Republic  
 (tomas.halenka@mff.cuni.cz)

**10:30–11:00: EMS2014-591**

High-resolution climate change simulations within EURO-CORDEX: Projected changes in the RCP2.6 scenario simulations in comparison to RCP4.5 and RCP8.5 scenario simulations (solicited)  
**Claas Teichmann**, Arne Kriegsmann, Bastian Eggert, Andreas Haensler, Nils Hempelmann, Lennart Marien, Juliane Petersen, Susanne Pfeifer, Swantje Preuschmann, Diana Rechid, Kevin Sieck, Daniela Jacob  
 Max-Planck-Institut für Meteorologie, The Atmosphere in the Earth System, Hamburg, Germany  
 (claas.teichmann@zmaw.de), Climate Service Center, Helmholtz-Zentrum Geesthacht, Hamburg, Germany

**END OF ORAL PROGRAMME SE2**

## SE4 European collaborative projects towards climate services

**Convener:** Carlo Buontempo

**Co-Conveners:** Chris Hewitt, Francisco J. Doblas-Reyes

**Lecture Room:** Zenit

**12:00–13:00**

**Chairperson(s):** Carlo Buontempo

**12:00–12:15: EMS2014-207**

On the use and potential use of seasonal to inter-annual climate predictions for decision-making in Europe  
**Marta Bruno Soares**, Suraje Dessai and the EUPORIAS WP12 Team  
 Sustainability Research Institute, School of Earth and Environment, University of Leeds, Leeds, United Kingdom, Centre for Climate Change Economics and Policy, School of Earth and Environment, University of Leeds, Leeds, United Kingdom

**12:15–12:30: EMS2014-490**

Towards custom made seasonal forecasting  
 Irina Mahlstein, Christoph Spirig, **Mark Liniger**  
 Federal Office of Meteorology and Climatology MeteoSwiss, Climate Division, Zuerich, Switzerland  
 (mark.liniger@meteoswiss.ch)

**12:30–12:45: EMS2014-265**

Providing and facilitating climate model data access in Europe: IS-ENES and CLIPC initiatives  
**Christian Pagé**, Sylvie Joussaume, Martin Juckes, Wim Som de Cerff, Maarten Plieger, Lars Bärring, Michael Kolax, Ronald Hutjes, Fokke de Jong, Edoardo Buccignani, Natalia Tatarinova, Antonio Cofiño, Ernst de Vreede  
 Sciences de l'Univers au CERFACS, CERFACS/CNRS, URA1875, Toulouse, France  
 (christian.page@cerfacs.fr)

**12:45–13:00: EMS2014-234**

A new approach in climate modelling strategies to provide climate information based on users needs: the CLIM-RUN experience  
**Alessandro Dell'Aquila**, Samuel Somot, Pierre Nabat, Clotilde Dubois, Antoinette Alias, Erika Coppola  
 ENEA, UTMEA-CLIM, UTMEA-CLIM, Rome, Italy  
 (alessandro.dellaquila@enea.it)

**13:00 Lunch Break****15:30–17:30**

**Chairperson(s):** Carlo Buontempo

**15:30–15:45: EMS2014-64**

Investigating seasonal predictability of winter transport impacts in the UK  
 Erika J. Palin, Adam A. Scaife, Alberto Arribas, **Anca Brookshaw**  
 Met Office Hadley Centre, FitzRoy Road, Exeter EX1 3PB, UK (erika.palin@metoffice.gov.uk)

**15:45–16:00: EMS2014-589**

EUPORIAS climate service prototype: drought early warning in Ethiopia  
**Sandro Calmanti** and the LEAP-EUPORIAS Team  
 ENEA, UTMEA-CLIM, Rome, Italy  
 (sandro.calmanti@enea.it)

**16:00–16:15: EMS2014-633**

Developing a prototype climate service for land management: the EUPORIAS land management tool  
**Pete Falloon**, Felicity Liggins, Carlo Buontempo, John Wilding, John Varley, Wim Som de Cerff, Ernst de Vreede, Marta Bruno Soares, Rita Cardoso  
 Met Office Hadley Centre, Fitzroy Road, Exeter, EX1 3PB UK

**16:15–16:30: EMS2014-205**

A climate service prototype for water resource management at seasonal scales  
**Jean-Pierre Ceron**, Anne-Lise Beaulant, Christian Viel  
 Meteo-France, Direction de la Climatologie, 42 avenue G. Coriolis, Toulouse Cedex 1, France  
 (jean-pierre.ceron@meteo.fr)



**16:30–16:45: EMS2014-59**

Impact of land surface initial conditions on sub-seasonal to seasonal prediction of mid-latitude summer temperature  
**Constantin Ardilouze**, Bertrand Decharme, Sophie Tyteca, Hervé Douville, Michel Déqué  
 CNRM-GAME, Météo-France and CNRS, Toulouse France (constantin.ardilouze@meteo.fr)

**16:45–17:00: EMS2014-544**

EURO4M contribution to climate services development  
**Albert M.G. Klein Tank**  
 Royal Netherlands Meteorological Institute, De Bilt, Netherlands (albert.klein.tank@knmi.nl)

**17:00–17:15: EMS2014-310**

Web processing services ( WPS ) for Climate Data as possible tools of inter-project collaboration  
**Nils Hempelmann**, Carsten Ehbrecht, Stephan Kindermann  
 Climate Service Center (CSC), Hamburg, Germany, (nils.hempelmann@hzg.de)

**17:15–17:30: EMS2014-460**

Exploring conditions for multi-annual prediction with EC-Earth  
**Ralf Döschner**, Klaus Wyser, Mihaela Caian, Torben Koenigk  
 Swedish Meteorological and Hydrological Institute (SMHI), Sweden (ralf.doescher@smhi.se)

**END OF ORAL PROGRAMME SE4**

## Communication and Education

### CE1 Media and Communication

**Convener:** Tanja Cegnar  
**Lecture Room:** Taurus

**08:30–10:30**

**Chairperson(s):** T. Cegnar

**08:30–08:45:** Show cases of best practice in TV weather forecasts

**08:45–09:00: EMS2014-329**

Presenting the weather forecasts in TV- a worldwide survey  
**Panagiotis Giannopoulos**, Zoran Vakula  
 Hellenic Nat. Met. Service, Greece (pgiannop1@yahoo.com)

**09:00–09:15: EMS2014-662**

Active Role of Czech Television Viewers in Programs about the Weather (solicited)  
**Tatana Mikova**  
 CESKA TELEVIZE, Czech Republic

**09:15–09:30: EMS2014-648**

Experiences with tools to improve the visualization of the current weather for presenters (solicited)  
**Enric Agud Pique**  
 Radio and TV of Catalunya, Barcelona (eagud.q@tv3.cat)

**09:30–09:45: EMS2014-407**

Weather forecast on TV broadcast in Slovakia.  
**Miriam Jarosova**  
 Slovakia (miriamjaros@gmail.com)

**09:45–10:00: EMS2014-666**

New media vs. effectiveness analysis of informing the public against extraordinary hazards  
**Lukasz Legutko**  
 Institute of Meteorology and Water Management Warsaw, Poland

**10:00–10:30: EMS2014-661**

Five years of change in television weather presenting (solicited)  
**Jay Trobec**  
 KELO-TV, Sioux Falls, South Dakota, USA

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** T. Cegnar

**11:30–12:00**

Show cases and examples of best practice in outreach and communications and journalistic publications. The related awards will be presented in the Awards Session on Tuesday, 14:00. For details see page 11.

**12:00–12:30: EMS2014-669**

The IPCC AR5 SPM decrypted -> clear-text (solicited)  
**Rasmus Benestad**  
 Norwegian Meteorological Institute (rasmus.benestad@met.no)

**12:30–12:45:**

Bringing science closer to policymakers  
**Tanja Cegnar**

**12:45–13:00:**

Media and NMS Communication during floods in Czech Republic 2013  
 J. Danhelka, M. Sandev

**END OF ORAL PROGRAMME CE1**

## Numerical Weather Prediction

### NWP4 Probabilistic and ensemble forecasting at short and medium-range

**Convener:** Andrea Montani

**Co-Conveners:** Jan Barkmeijer; Fernando Prates

**Lecture Room:** Leo + Virgo

**08:30–10:30**

**Chairperson(s):** Montani, A.

**08:30–09:00: EMS2014-235**

Ensemble forecasts for Sochi-2014 Olympics: development of COSMO-based ensemble systems and their application (solicited)

**Elena Astakhova**, Andrea Montani, Dmitry Alferov, Dmitry Kiktev, Gdaly Rivin, Inna Rozinkina, Chiara Marsigli, Tiziana Paccagnella  
Hydrometcenter of Russia, Moscow, Russian Federation (elena\_ast\_hmc@mail.ru)

**09:00–09:15: EMS2014-480**

COSMO-CZ-EPS verification and uncertainty assessment

**Petr Zacharov**, Daniela Řezáčová, Zbyněk Sokol  
Institute of Atmospheric Physics ASCR, Dept. of Meteorology, Prague, Czech Republic (petas@ufa.cas.cz)

**09:15–09:30: EMS2014-53**

Î<sup>3</sup>-SREPS: AEMET New Mesoscale Ensemble Prediction System

**Carlos Santos**, Alfons Callado, Pau Escriba, Jose A. Garcia-Moya, Bartolome Orfila  
Agencia Estatal de Meteorologia, AEMET, Spain

**09:30–09:45: EMS2014-346**

Bayesian quantitative precipitation forecasting

**Sabrina Bentzien**, Petra Friederichs  
University of Bonn, Meteorological Institute, Bonn, Germany (bentzien@uni-bonn.de)

**09:45–10:00: EMS2014-63**

Gale Warning for Swiss Lakes and Regional Aerodromes based on Ensemble Genetic Programming  
**Lysiane Mayoraz**, Jacques Ambühl, Roman Voisard, Christophe Voisard, Manuela Züger, Hans Romang  
MeteoSwiss, Zurich, Switzerland

**10:00–10:15: EMS2014-473**

Multi-model ensemble hydrometeorological modelling of the 4 November 2011 Genoa, Italy flash flood in the framework of the DRIHM project

**Alan Hally** and the DRIHM Team  
CNRM, Météo-France, Toulouse, France (alan.hally@meteo.fr)

**10:15–10:30:**

**Short poster introductions (3 minutes per poster)**

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Arpagaus, M.

**11:30–12:00: EMS2014-243**

Optimizing the analog ensemble for probabilistic wind power forecasting at four on and offshore wind farms (solicited)

**Constantin Junk**, Luca Delle Monache, Stefano Alessandrini, Lueder von Bremen, Stephan Späth  
ForWind - Center for Wind Energy Research, University of Oldenburg, Oldenburg, Germany (constantin.junk@forwind.de)

**12:00–12:15: EMS2014-81**

Extending Extended Logistic Regression: Extended vs. Separate vs. Ordered vs. Censored

**Jakob W. Messner**, Georg J. Mayr, Daniel S. Wilks, Achim Zeileis  
Institute of Meteorology and Geophysics, University Innsbruck, Innsbruck, Austria (jakob.messner@uibk.ac.at), Department of Statistics, University Innsbruck, Innsbruck, Austria

**12:15–12:30: EMS2014-68**

Impact of high-resolution boundary conditions on the quality of COSMO-LEPS forecasts

**Andrea Montani**, Chiara Marsigli, Tiziana Paccagnella  
ARPA-SIMC, HydroMeteoClimate Service of Emilia-Romagna Region, Bologna, Italy (amontani@arpa.emr.it)

**12:30–12:45: EMS2014-343**

SRNWP-PEPS: An operational regional multi-model ensemble in Europe

**Sebastian Trepte**, Michael Denhard, Bernhard Reichert  
Deutscher Wetterdienst, Offenbach, Germany (sebastian.trepte@dwd.de)

**12:45–13:00: EMS2014-306**

A Hybrid, NWP-Analog Ensemble

**Luca Delle Monache**, F. Anthony Eckel  
National Center for Atmospheric Research, Research Application Laboratory, Boulder, Colorado, United States (lucadm@ucar.edu)

**13:00 Lunch Break**

**15:30–16:00**

**Chairperson(s):** Santos, C.

**15:30–15:45: EMS2014-305**

Stochastic ice phase microphysics in Harmonie EPS and verification of snow forecasts

**Sibbo van der Veen**  
KNMI, Weather Service / Research and Development, De Bilt, Netherlands (veenvds@knmi.nl)

**15:45–16:00: EMS2014-119**

Impact of the back scatter kinetic energy on the perturbation of ensemble members for strong convective event

**Jakub Guzikowski**  
Institute of Geophysics PAS, Atmospheric Physics, Warsaw, Poland (jguzikowski@igf.edu.pl)

**END OF ORAL PROGRAMME NWP4**

# The Atmospheric System and its Interactions

## ASI13 Energy Meteorology

**Convener:** Sven-Erik Gryning  
**Co-Conveners:** Ekaterina Batchvarova; Marion Schroedter-Homscheidt; Lucien Wald  
**Lecture Room:** Nadir

**08:30–10:30**

**Chairperson(s):** Lucien Wald

**08:30–08:45: EMS2014-147**

ECMWF's global and direct normal irradiance forecasts - an accuracy assessment taking the new MACC aerosol forecasts into account  
**Marion Schroedter-Homscheidt**, Niels Killius, Gerhard Gesell, Angela Benedetti  
 DLR, German Remote Sensing Data Center, Wessling, Germany (marion.schroedter-homscheidt@dlr.de)

**08:45–09:00: EMS2014-415**

Solar PV power forecasting in Australia using GFS and ECMWF  
**Henrik Aalborg Nielsen**, Torben Skov Nielsen, Hans-Peter (Igor) Walldl, Peter Coppin  
 ENFOR A/S, Denmark

**09:00–09:15: EMS2014-340**

Forecasting the variability of solar irradiance using numerical weather prediction  
**Jing Huang**  
 CSIRO Marine and Atmospheric Research, Canberra ACT, Australia (jing.r.huang@csiro.au)

**09:15–09:30: EMS2014-429**

Statistical Analysis of NWP Prediction Errors and Their Consequences for Short-Time Photovoltaic Energy Forecasting; A Semi-Parametric Way to Prediction Quality Improvements  
**Marek Brabec**, Kryštof Eben, Ondřej Konár, Pavel Krč, Emil Pelikán, and Pavel Juruš  
 Institute of Computer Science, Prague, Czech Republic (mbrabec@cs.cas.cz)

**09:30–09:45: EMS2014-376**

Ensemble Forecasts and Predictability: A look at COSMO-DE-EPS performance for global radiation  
**Zied Ben Bouallègue**, Tobias Heppelmann  
 Deutscher Wetterdienst, Offenbach, Germany (zied.ben-bouallègue@dwd.de)

**09:45–10:00: EMS2014-8**

Application of meteorological data for state estimation of an electrical low voltage grid with a high amount of photovoltaic systems  
**Holger Ruf**, Marion Schroedter-Homscheidt, Florian Meier, Gerd Heilscher  
 Ulm University of Applied Science, Ulm, Germany (ruf@hs-ulm.de), University of Agder, Grimstad, Norway

**10:00–10:15: EMS2014-32**

Monitoring the performance of solar energy plants from satellite remote sensing of air temperature and ground solar irradiance through an accurate modelling of the effects of aerosol optical properties  
**Marco Morelli**, Andrea Masini, Sebastiano B. Serpico, Gabriele Moser, Marco A. C. Potenza  
 University of Milano, Department of Physics, Milano, Italy (marco.morelli1@unimi.it)

**10:15–10:30: EMS2014-564**

Designing a renewable energy system for the Iberian Peninsula  
**Juan Pedro Montavez**, Jesús Ruiz, Sonia Jerez, Antonio Sarsa  
 Universidad de Murcia, Physics, Murcia, Spain (montavez@um.es)

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Marion Schroedter-Homscheidt

**11:30–11:45: EMS2014-328**

Simulation of long term solar power feed-in and solar balancing potential in European countries  
**Kabitri Nag**, Elke Lorenz, Alexander Kies, Lüder von Bremen, Detlev Heinemann  
 Carl-von Ossietzky University of Oldenburg, Institute of Physics

**11:45–12:00: EMS2014-444**

Response of electricity demand to temperature and solar radiation in Italy  
**Simone Scapin**, Francesco Apadula, Michele Brunetti, Maurizio Maugeri  
 Ricerca sul Sistema Energetico - RSE Spa, Milano, Italy (simone.scapin@rse-web.it), Dipartimento di Fisica, Università degli Studi di Milano, Milano, Italy (maurizio.maugeri@unimi.it)

**12:00–12:15: EMS2014-331**

Investigation of balancing effects in long term renewable energy feed-in with respect to the transmission grid  
**Alexander Kies**, Lüder von Bremen, Kabitri Nag, Elke Lorenz, Detlev Heinemann  
 Institute of Physics, Carl von Ossietzky University of Oldenburg, Germany (alexander.kies@uni-oldenburg.de), Forwind-Center for Wind Energy Research, University of Oldenburg, Germany

**12:15–12:30: EMS2014-132**

Towards a more accurate solar and wind power prediction by improving NWP model physics  
**Carmen Köhler**, Andrea Steiner  
 DWD, Offenbach, Germany (carmen.koehler@dwd.de)

**12:30–12:45: EMS2014-170**

Operational Wind and Solar Energy power forecasting for the Australian Energy Market  
 Peter Coppin, **Jing Huang**  
 CSIRO Energy Flagship, Canberra, Australia (peter.coppin@csiro.au)

**12:45–13:00: EMS2014-424**

Now-casting of Wind and PV for EEX/EPEX Traders  
**Roman Y. Asper**  
 enercast GmbH, Kassel, Germany

**13:00 Lunch Break****15:30–17:30**

**Chairperson(s):** Ekaterina Batchvarova

**15:30–15:45: EMS2014-199**

The ORKA project: Improving COSMO-DE-EPS for Renewable Energy applications  
**Regina Kohlhepp**, Jonas von Schumann, Michael Buchhold  
 Deutscher Wetterdienst (DWD), Offenbach am Main, Germany

**15:45–16:00: EMS2014-2**

Observations and modeling of the wind profile and wind turning in the atmospheric boundary layer  
**Alfredo Peña**, Sven-Erik Gryning, Rogier Floors  
 DTU, Wind Energy, Wind Energy, Roskilde, Denmark  
 (aldi@dtu.dk)

**16:00–16:15: EMS2014-202**

The impact of stability on the near-surface wind in high-wind conditions over sea  
 Peter Baas, **Fred Bosveld**, Gerrit Burgers  
 KNMI, Regional Climate Section, De Bilt, Netherlands  
 (baasp@knmi.nl)

**16:15–16:30: EMS2014-257**

Validation of offshore boundary layer wind shear profiles for wind energy research  
**Maarten Holtslag**, Wim Bierbooms, Gerard van Bussel  
 Technical University Delft, the Netherlands  
 (m.c.holtslag@tudelft.nl)

**16:30–16:45: EMS2014-500**

Observations of the boundary-layer height and the wind profile in the marine boundary layer  
**Rogier Floors**, Sven-Erik Gryning, Alfredo Peña  
 Department of Wind Energy, DTU, Roskilde, Denmark  
 (rofl@dtu.dk)

**16:45–17:00: EMS2014-595**

Monitoring vertical wind profiles at a coastal area using a lidar doppler for wind energy applications  
**Claudia Roberta Calidonna**, Daniel Gulli, Stefano Federico, Elenio Avolio, Teresa Lo Feudo, Luca Tiriolo, Anna Maria Sempreviva  
 Institute of Atmospheric Science and Climate, C.N.R., Lamezia Terme (CZ), Italy (cr.calidonna@isac.cnr.it)

**17:00–17:15: EMS2014-208**

An experimental and numerical study of the urban wind field at the university site Tübingen  
**Asmae El Bahlouli**, Jens Bange  
 Tübingen, Center for Applied Geoscience, Environmental Physics, Tübingen, Germany  
 (asmae.el-bahlouli@uni-tuebingen.de)

**17:15–17:30: EMS2014-233**

Comparison of inflow wind variables and error detection using LiDAR technology  
**Ashim Giyanani**, Wim Bierbooms, Gerard van Bussel  
 Wind Energy Research Group, Faculty of Aerospace Engineering, Delft University of Technology,  
 Kluyverweg 1, 2629 HS Delft, the Netherlands  
 (a.giyanani@tudelft.nl)

**ORAL PROGRAMME ASI13 continues on Wednesday morning.**

## Side Meetings & Workshops

### SIM2 EUMETNET climate expert team meeting (by invitation only)

**Convener:** Ingeborg Auer  
**Lecture Room:** Aquarius

**11:30–15:00**

### SIM5 Programme and Science Committee: EMS & ECAM 2015 (by invitation only)

**Convener:** Martina Junge  
**Lecture Room:** Aquarius

**15:30–17:30**

### SIM6 Communications workshop for European weather services (by invitation only)

**Convener:** Michael Williams  
**Co-Convener:** Tanja Cegnár  
**Lecture Room:** Taurus

**14:00–17:30**

### SIM11 WMO RA VI RCC Network: Informal coordination meeting (by invitation only)

**Conveners:** Stefan Rösner; Aryan F.V. van Engelen  
**Lecture Room:** Quadrant

**17:00–19:00**

## European Conference on Applied Climatology (ECAC)

### Understanding processes and climate change

#### UC1 Climate change detection, assessment of trends, variability and extremes

**Convener:** Albert M.G. Klein Tank

**Co-Conveners:** Martine Rebetez; Monika Lakatos

**Poster Area:** Meridian Left Front

**Chairperson(s):** Albert Klein Tank

**Attendance Time:** 10:30–11:30

##### LF19: EMS2014-524

Soil temperature and its long-term changes in Latvia  
**Agrita Briede**, Lita Lizuma, Zanita Avotniece  
Department of Geography, University of Latvia, Latvia

##### LF20: EMS2014-275

On the Origins of Cyclones Entering the Baltic Sea Region  
**Mait Sepp**, Kaupo Mändla, Piia Post  
University of Tartu, Department of Geography, Tartu, Estonia (mait.sepp@ut.ee)

##### LF21: EMS2014-455

Sea Ice Area Investigation over the East Greenland Sea during 2003-13  
**Mauro Boccolari**, Lorenzo Guerrieri, Flavio Parmiggiani  
University of Modena and Reggio Emilia, Department of Chemical and Geological Sciences, Modena, Italy (mauro.boccolari@unimore.it)

##### LF22: EMS2014-532

The Probability of Rainfall Causing Floods and Droughts in the Citarum River Basin: Will They Increase in the Future?  
**Akhmad Faqih**, Rizaldi Boer, Adi Rakhman, Syamsu Dwi Jadmiko  
Center for Climate Risk and Opportunity Management in Southeast Asia and Pacific (CCROM-SEAP), Bogor Agricultural University (IPB), Bogor, Indonesia (e-Mail: ccromseap.ipb@gmail.com), Department of Geophysics and Meteorology, Faculty of Mathematics and Natural Sciences, Bogor Agricultural University (IPB), Bogor, Indonesia (e-Mail: geomet@ipb.ac.id)

##### LF23: EMS2014-324

Variability and Mechanisms of Summer Heat Wave in Korea  
**Woo-Seop Lee**, Myong-In Lee  
APEC Climate Center, climate change department, Busan, Republic of Korea (wslee@apcc21.org)

##### LF24: EMS2014-618

Studies of trends in present and future climate in Northeastern Brazil and the Deployment of the Laboratory of Climate Change in Pernambuco- LMC  
**Francinete Francis Lacerda**, Paulo Nobre, Geraldo Majella Bezerra Lopes, Eduardo Delgado Assad  
Instituto Agronômico de Pernambuco - IPA, Recife, PE, Brasil. Doutoranda do Programa de Pós Graduação do Departamento de Engenharia Civil da Universidade Federal de Pernambuco, UFPE francis.lacerda@ipa.br

##### LF25: EMS2014-270

Extreme events of precipitation on Sardinia island, 1951-2000  
**Paolo Boi**  
Dipartimento Meteorologico, ARPAS, Sassari, Italy (pboi@arpa.sardegna.it)

##### LF26: EMS2014-109

Evaporation observations, estimates and driving factors in Spain (1961-2011)  
**Cesar Azorin-Molina**, Sergio Martín Vicente Serrano, Arturo Sanchez-Lorenzo, Juan I. Lopez-Moreno, Enrique Moran-Tejeda, Jesus Revuelto, Francisco Espejo, Tim R. McVicar  
Instituto Pirenaico de Ecología, Procesos geoambientales y Cambio Global, Zaragoza, Spain (svicen@ipe.csic.es)

##### LF27: EMS2014-114

Significant Climatic Warming (1950-2012) in the Spanish Mediterranean: Natural Trend or Urban Heat Island  
José Quereda Sala, Enrique Montón Chiva, Belen Mollá Cantavella, **Victoria Quereda Vázquez**  
Universitat Jaume I, Interuniversity Institute of Geography, Climate Laboratory, Castellón, Spain (montone@uji.es)

##### LF28: EMS2014-115

Sensitivity of reference evapotranspiration to changes in meteorological parameters in Spain (1961-2011)  
**Sergio Martín Vicente Serrano**, Cesar Azorin-Molina, Arturo Sanchez-Lorenzo, Jesus Revuelto, Enrique Moran-Tejeda, Juan I. Lopez-Moreno, Francisco Espejo  
Instituto Pirenaico de Ecología, Procesos geoambientales y Cambio Global, Zaragoza, Spain (svicen@ipe.csic.es)

##### LF29: EMS2014-311

Review of flood alert thresholds based on the socioeconomic impact of catastrophic events in the southeastern Spain  
Salvador Gil-Guirado, Alfredo Perez Morales, Francisco Lopez Martinez, **Mariano Barriendos Vallve**  
University of Barcelona, Barcelona, Spain

##### LF30: EMS2014-358

Links between circulation types and precipitation in NE Spain: comparison of E-OBS and RCM-simulated data  
**Eva Plavcová**, Jan Kyselý, Santiago Beguería, Romana Beranová, Ladislav Gaál, Juan Ignacio López-Moreno  
Institute of Atmospheric Physics AS CR, Prague, Czech Republic (plavcova@ufa.cas.cz)

**LF31: EMS2014-636**

A regional analysis of changes in flooding events along the Spanish coast

**Melisa Menendez**, Cc Izaguirre, Jj Perez, li Losada, Ff Mendez  
Environmental Hydraulics Institute "IH Cantabria",  
Universidad de Cantabria, Spain

**END OF POSTER PROGRAMME UC1****UC5 Synoptic climatology**

**Convener:** Radan Huth

**Co-Convener:** Rasmus Benestad

**Poster Area:** Meridian Left Back

**Chairperson(s):** Radan Huth

**Attendance Time:** 10:30–11:30

**LB1: EMS2014-21**

The study of climate variability in Serbia using atmospheric circulation types

**Gorica Stanojević**  
Geographical Institute "Jovan Cvijić" of the Serbian Academy of Sciences and Arts, Belgrade, Serbia  
(g.stanojevic@gi.sanu.ac.rs)

**LB2: EMS2014-133**

EPISODES - Empirical Statistical Downscaling for Seasonal, Decadal up to Climate Time Series  
Frank Kreienkamp, **Barbara Früh**  
Deutscher Wetterdienst, Klima und Umweltberatung, Offenbach, Germany (frank.kreienkamp@dwd.de)

**LB3: EMS2014-213**

The comparison of weather types in the years of extreme drought over Croatia

**Dunja Plačko-Vršnak**, Marija Mokorić, Krunoslav Mikec  
Croatia (dplacko@cirrus.dhz.hr)

**LB4: EMS2014-457**

Importance of latent heat release for the transformation of cyclones to severe storms over the North Atlantic in dependence of spatial resolution

Simon Wild, Daniel J. Belfort, **Gregor C. Leckebusch**  
University of Birmingham, School of Geography, Earth and Environmental Sciences, Birmingham, United Kingdom (sbw206@bham.ac.uk)

**LB5: EMS2014-549**

A combination of circulation type classifications and neural networks for downscaling alpine climate stations

**Andreas Philipp**, Severin Kaspar, Jucundus Jacobeit  
University of Augsburg, Geography, Physical Geography and Quantitative Methods, Augsburg, Germany (andreas.philipp@geo.uni-augsburg.de)

**LB6: EMS2014-573**

Influences of seasonal synoptic weather types on local PM10 concentrations from 1980–2011 in Bavaria (Germany)

**Claudia Weitnauer**, Christoph Beck, Jucundus Jacobeit  
Augsburg, Geography, Physical Geography and Quantitative Methods, Augsburg, Germany  
(claudia.weitnauer@geo.uni-augsburg.de)

**LB7: EMS2014-149**

European atmospheric circulation and temperature trends since 1850

**Monika Cahynova**  
Institute of Atmospheric Physics, Academy of Sciences of the Czech Republic, Department of Climatology, Praha 4, Czech Republic (cahynova@ufa.cas.cz)

**LB8: EMS2014-519**

Synoptic conditions of extremely high reference evapotranspiration values in Poland (1971–2010)

**Pawel Bogawski**, Ewa Bednorz  
Adam Mickiewicz University in Poznan, Faculty of Biology, Laboratory of Aeropalynology, Poznan, Poland (bogawski@amu.edu.pl), Adam Mickiewicz University in Poznan, Faculty of Geographical and Geological Sciences, Department of Climatology

**LB9: EMS2014-651**

Statistical downscaling of the tropical cyclone activity based on the sea surface temperature

**Antonio Espejo**, Fernando J. Mendez, Javier Diez, Raul Medina, Sultan Al-Yayai  
Environmental Hydraulics Institute "IH Cantabria" Universidad de Cantabria, Spain

**END OF POSTER PROGRAMME UC5****Research and services for socio-economic sectors****SE2 Host topical session: From climate science to climate services: CORDEX**

**Convener:** Tomas Halenka

**Co-Convener:** Daniela Jacob

**Poster Area:** Meridian Left Back

**Chairperson(s):** Tomas Halenka

**Attendance Time:** 11:00–12:00

**LB10: EMS2014-25**

Regional climate simulations with WRF model

**Jan Karlicky**, Tomas Halenka, Michal Belda, Petr Skalack, Zuzana Klukova  
Charles University, Prague, Fac. of Math. and Phys., Dept. of Meteorology and Environment Protection, Czech Republic

**LB11: EMS2014-104**

Effects of horizontal resolution of regional climate model simulations on convective and stratiform precipitation

**Zuzana Rulfova**, Ales Farda, Jan Kysely  
Institute of Atmospheric Physics AS CR, Prague, Czech Republic (rulfova@ufa.cas.cz), Department of Meteorology and Environment Protection, Charles University in Prague, Czech Republic

**END OF POSTER PROGRAMME SE2**

## SE4 European collaborative projects towards climate services

**Convener:** Carlo Buontempo  
**Co-Conveners:** Chris Hewitt; Francisco J. Doblas-Reyes  
**Poster Area:** Meridian Left Back  
**Chairperson(s):** Carlo Buontempo  
**Attendance Time:** 11:00–12:00

### LB12: EMS2014-138

Seasonal Ensemble Simulations in East Africa  
 Shakeel Asharaf, Bedassa Regassa Cheneka,  
 Susanne Brienens, Kristina Fröhlich, Grigory Nikulin,  
**Barbara Früh**, EUPORIAS East Africa Team  
 Deutscher Wetterdienst, Klima und Umweltberatung,  
 Offenbach, Germany (barbara.frueh@dwd.de)

**END OF POSTER PROGRAMME SE4**

## Communication and Education

### CE1 Media and Communication

**Convener:** Tanja Cegnar  
**Poster Area:** Meridian Right Back  
**Chairperson(s):** T. Cegnar  
**Attendance Time:** 10:30–11:30

### RB1: EMS2014-419

An overview of the use of Twitter in National Weather Services  
**Santiago Gaztelumendi**, Maialen Martija, Olatz  
 Principe, Virginia Palacio  
 TECNALIA - Meteo Unit, Basque Meteorology Agency  
 (EUSKALMET)

**END OF POSTER PROGRAMME CE1**

## Numerical Weather Prediction

### NWP4 Probabilistic and ensemble forecasting at short and medium-range

**Convener:** Andrea Montani  
**Co-Conveners:** Jan Barkmeijer; Fernando Prates  
**Poster Area:** Meridian Left Back  
**Chairperson(s):** Montani, A.  
**Attendance Time:** 10:30–11:30

### LB26: EMS2014-79

Calibration of limited-area ensemble precipitation forecasts for hydrological predictions  
**Tommaso Diomede**, Chiara Marsigli, Andrea Montani,  
 Fabrizio Nerozzi, Tiziana Paccagnella  
 ARPA-SIMC, HydroMeteorological and Climate Service  
 of the Emilia-Romagna Regional Agency for  
 Environmental Protection, Bologna, Italy  
 (tdiomede@arpa.emr.it)

### LB27: EMS2014-20

Wind Speed Ensemble Predictions with an Analog-based Method in Complex Terrain  
**Iris Odak**, Luca Delle Monache, Kristian Horvath, Mario  
 Hraštinski, Alica Bajić  
 Meteorological and Hydrological Service, Zagreb,  
 Croatia

### LB28: EMS2014-237

A Study on the Ensemble MOS for Medium Range Prediction based on Ensemble Prediction System for Global in Korea Meteorological Administration  
**Juntae Choi**  
 Republic of Korea (cjt@kma.go.kr)

### LB29: EMS2014-319

Effect of horizontal resolution and ensemble number on the precipitation forecast in the regional ensemble forecast system of the Korea Meteorological Administration  
**SeHyun Kim**, Hyun Mee Kim, Jun Kyung Kay,  
 Seung-Woo Lee  
 Department of Atmospheric Sciences, Yonsei  
 University, Seoul, Republic of Korea

### LB30: EMS2014-557

INCA Precipitation Analysis and Ensemble Nowcasting - Recent Developments and Operational Experiences  
**Benedikt Bica**, Martin Suklitsch, Alexander Kann  
 Central Institute for Meteorology and Geodynamics,  
 Numerical Weather Prediction, Vienna, Austria  
 (benedikt.bica@zamg.ac.at)

**END OF POSTER PROGRAMME NWP4**

## The Atmospheric System and its Interactions

### ASI13 Energy Meteorology

**Convener:** Sven-Erik Gryning

**Co-Conveners:** Ekaterina Batchvarova; Marion Schroedter-Homscheidt; Lucien Wald

**Poster Area:** Meridian Right Back

**Chairperson(s):** Ekaterina Batchvarova

**Attendance Time:** 10:30–11:30

#### RB11: EMS2014-420

Wind characteristics of selected regions in Poland.

**Katarzyna Starosta**, Joanna Linkowska, Andrzej Mazur

Institute of Meteorology and Water Management-National Research Institute, Numerical Weather Forecasts, Warsaw, Poland  
(katarzyna.starosta@imgw.pl)

#### RB12: EMS2014-357

Understanding wind energy variability over Korean peninsula using Climate Change Scenario

**Yumi Kim**, Yoonjin Lim, Byoung-Choel Choi, Nam-Hee Kim

National Institute of Meteorological Research, Republic of Korea (akahana@korea.kr)

#### RB13: EMS2014-604

On the Weibull distribution for wind energy assessment

**Ekaterina Batchvarova**, Sven-Erik Gryning  
National Institute of Meteorology and Hydrology, Bulgarian Academy of Sciences, Sofia, Bulgaria  
(Ekaterina.Batchvarova@meteo.bg)

#### RB14: EMS2014-438

Using MNWP models of different horizontal resolution to estimate available wind power resources at specific locations

**Mario Hrastinski**, Alica Bajić  
Meteorological and Hydrological Service, Atmospheric research and forecast models development department, Zagreb, Croatia (mario.hrastinski@cirrus.dhz.hr)

#### RB15: EMS2014-274

Standardization of meteorological data from offshore platforms

**Tina Leiding**, Lydia Gates, Birger Tinz, Gudrun Rosenhagen  
Deutscher Wetterdienst, Hamburg, Germany  
(tina.leiding@dwd.de)

#### RB16: EMS2014-120

Power curves of entire wind farms under real operating conditions

**Armin Raabe**, Janek Zimmer  
Universität Leipzig, Institut für Meteorologie, Leipzig, Germany (RAABE@UNI-LEIPZIG.DE)

#### RB17: EMS2014-231

Forecasting wind power production from a wind farm using the RAMS Model

**Luca Tiriolo**, Rosa Claudia Torcasio, Stefania Montesanti, Anna Maria Sempreviva, Claudia Roberta Calidonna, Stefano Federico  
Institute of Atmospheric Sciences and Climate of the Italian National Council of Research, ISAC-CNR, UOS of Lamezia Terme, zona Industriale Comparto 15, 88046 Lamezia Terme, Italy (l.tiriolo@isac.cnr.it, rc.torcasio@isac.cnr.it, s.montesanti@isac.cnr.it)

#### RB18: EMS2014-280

Advancing Model Output Statistics (MOS) in the new German project EWeLiNE for enhanced temporal resolution and wind forecasting

**Gernot Vogt**, Sebastian Trepte  
German Weather Service (DWD), Offenbach am Main, Germany (gernot.vogt@dwd.de)

#### RB19: EMS2014-409

Towards seamless optimized wind forecasting  
Alexander Kann, **Benedikt Bica**, Martin Suklitsch  
Central Institute for Meteorology and Geodynamics, Numerical Weather Prediction, Vienna, Austria  
(alexander.kann@zamg.ac.at)

#### END OF POSTER PROGRAMME ASI13





# EMS ANNUAL MEETING & EUROPEAN CONFERENCE ON APPLICATIONS OF METEOROLOGY

7 - 11 September 2015 | Sofia | Bulgaria  
Kempinski Hotel

The EMS & ECAM 2015 in Sofia will be jointly organised by the EMS, the Bulgarian Meteorological Society (BMS), Aviometeorological Club of Bulgaria (AMC) and the National Institute of Meteorology and Hydrology (NIMH).

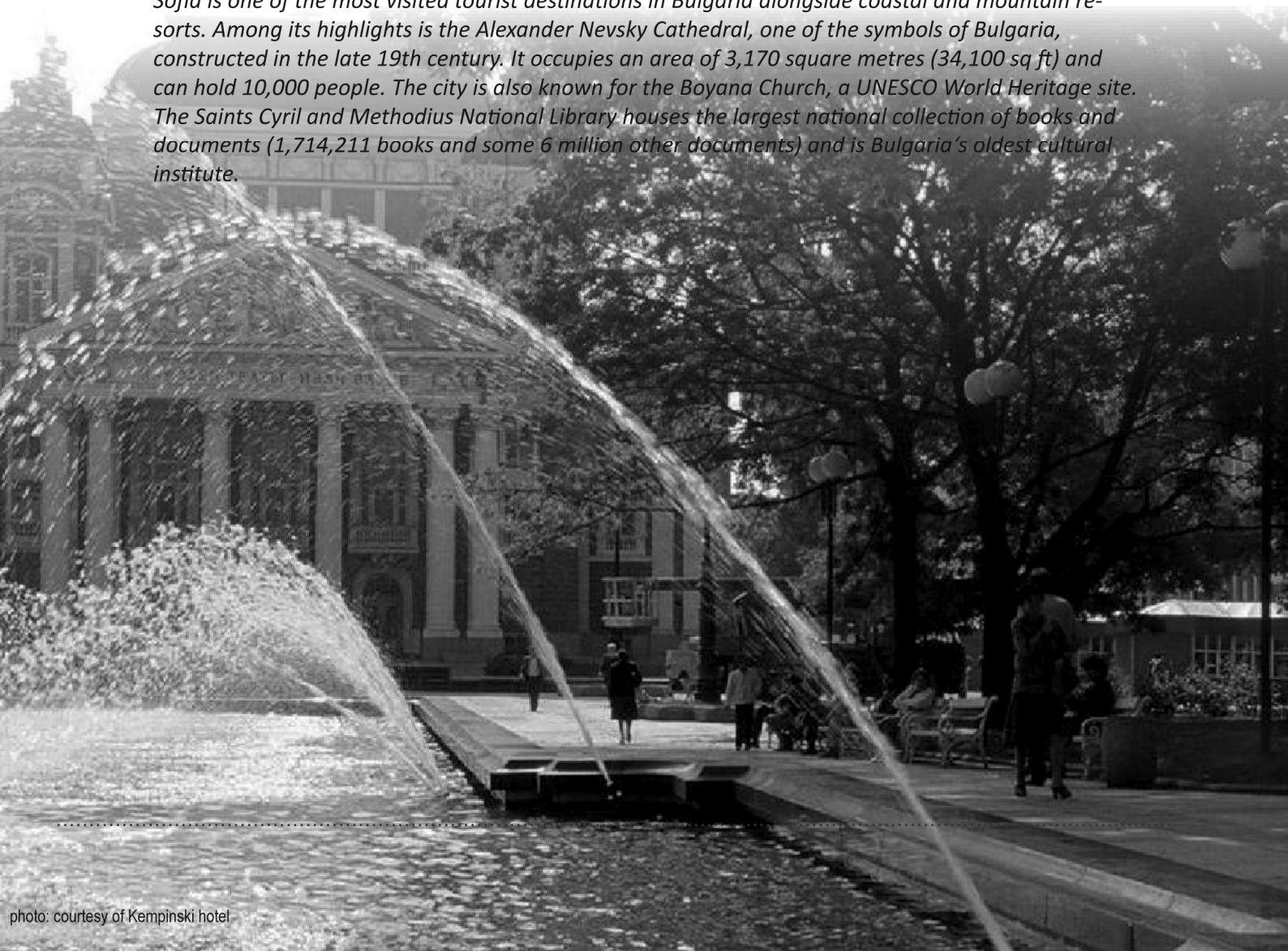
**Save the dates:** The EMS Annual Meetings and partner conferences are ,travelling' round Europe. Following the 2015 event, the next EMS&ECAC will be held **12-16 September 2016 in Trieste**, and **Dublin** will host the EMS&ECAM **11-15 September 2017**.

## TIMELINE

- DECEMBER 2014    ... **First Announcement**
- FEBRUARY 2015    ... **Call for papers**
- MID-APRIL 2015    ... **Close of abstract submission**

*Sofia is the capital and largest city of Bulgaria. Sofia is located at the foot of Mount Vitosha in the western part of the country. It occupies a strategic position at the centre of the Balkan Peninsula. Sofia's history spans 2,400 years. Its ancient name Serdica derives from the local Celtic tribe of the Serdi who established the town in the 5th century. situated in western Bulgaria, at the northern foot of the Vitosha mountain, in the Sofia Valley that is surrounded by mountains on all sides.*

*Sofia is one of the most visited tourist destinations in Bulgaria alongside coastal and mountain resorts. Among its highlights is the Alexander Nevsky Cathedral, one of the symbols of Bulgaria, constructed in the late 19th century. It occupies an area of 3,170 square metres (34,100 sq ft) and can hold 10,000 people. The city is also known for the Boyana Church, a UNESCO World Heritage site. The Saints Cyril and Methodius National Library houses the largest national collection of books and documents (1,714,211 books and some 6 million other documents) and is Bulgaria's oldest cultural institute.*



Wednesday, 08 October 2014						
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius
08:30–10:30	<b>SE5:</b> GFCS: services with a focus on non-European regions	<b>ASI13:</b> Energy Meteorology	<b>NWP1:</b> Dynamics and predictability of high impact weather in operational forecasting	<b>ASI4:</b> Coastal meteorology and oceanography	<b>CE2:</b> Adaptation to climate change	<b>SIM4:</b> Tips for effectively dealing with the media – training workshop (public)
10:30–11:30	<b>Poster Session &amp; Coffee Break I Foyer and Room Meridian</b>  <i>Poster authors in attendance time for the following sessions:</i> ECAC programme group: <b>SE5</b> (LB13 + LB14) NWP programme group: <b>NWP1</b> (LB15 - LB18) CE programme group: <b>CE2</b> (RF1) ASI programme group: <b>ASI4</b> (RF2 - RF14), <b>ASI13</b> (RB20 - RB27)					
11:30–13:00	<b>SE5</b>	<b>ASI13</b>	<b>NWP1 until 12:00</b> <b>ASI7:</b> Atmospheric hazards <b>12:00–13:00</b>	<b>ASI4</b>	<b>CE2</b>	<b>SIM4</b>
13:00	Lunch Break					
14:00–16:00	<b>SE1/CE6:</b> Creating national and regional climate services in Europe	<b>ASI13</b>	<b>ASI7</b>	<b>MC3:</b> Historical climatology and paleo-climatology	<b>NWP5/ASI14:</b> Mountain Meteorology	<b>SIM9:</b> The future of the EMS Annual Meetings (public)
16:00	Coffee Break until 16:30 <b>Poster Session 16:00-17:00 I Room Meridian</b>  <i>Poster authors in attendance time for the following sessions:</i> ECAC programme group: <b>MC3</b> (LB1 - LB5), <b>SE1/CE6</b> (LB29 - LB31) NWP programme group: <b>NWP5/ASI14</b> (LF28 - LF31) ASI programme group: <b>ASI7</b> (RF7 - RF11)					
16:30	<b>ECAC Symposium I Room Zenit</b> <b>The challenge of Climate Services: bridging the gaps</b> 16:30–18:00 <i>Detailed programme see page 10</i>					<b>SIM13:</b> ESSL General Assembly 17:30-19:00
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius

In the detailed daily programme (on pages 47 to 60) the related ECAC, NWP, CE and ASI sessions are listed in the following order: MC3, SE1/CE6, SE5, CE2, NWP1, NWP5/ASI14, ASI4, ASI7, ASI13.

#### Poster Display Time Monday – Wednesday lunchtime

Authors are kindly asked to put up their posters as soon as possible within the allocated display time in order to enable the conference participants to view their posters at any time within the display days, and to take them down on Wednesday between 13:00–14:00. Posters that have not been removed within this dismantling time will be removed and disposed off.

## Special Events

### SPS3/SE6 ECAC Symposium: The challenge of Climate Services: bridging the gaps (co-organized)

**Convener:** Ingeborg Auer  
**Lecture Room:** Zenit

**16:30–18:00**

For details of the programme see page 10.

## European Conference on Applied Climatology (ECAC)

### Monitoring climate and climate change

### MC3 Historical climatology and paleoclimatology

**Convener:** R. Brázdil  
**Co-Conveners:** Ulf Buentgen; Fidel González-Rouco; Ricardo García-Herrera  
**Lecture Room:** Tycho

**14:00–16:00**

**Chairperson(s):** R. Brázdil

#### 14:00–14:15: EMS2014-399

Frost, Droughts, and Sunshine: Seasonal Reconstruction of Temperatures and Precipitation Based on Documentary Evidence in the Burgundian Low Countries during the 15th Century

**Chantal Camenisch**

Oeschger Centre for Climate Change Research/Section of Economic, Social, and Environmental History (WSU), University of Bern, Switzerland  
(chantal.camenisch@hist.unibe.ch)

#### 14:15–14:30: EMS2014-189

Multiproxy reconstruction of wet and dry periods in the Czech Lands since AD 1500

**Petr Dobrovolný**, Rudolf Brázdil, Ulf Buntgen, Michal Rybníček, Tomáš Kolář, Mirek Trnka

Masaryk University, Department of Geography, Brno, Czech Republic (dobro@sci.muni.cz), Global Change Research Centre AS CR, Brno, Czech Republic

#### 14:30–14:45: EMS2014-507

An initial assessment of the weather data from the 1851 Census of Ireland

**Kieran R. Hickey**

National University of Ireland, Galway, Department of Geography, Galway city, Ireland  
(kieran.hickey@nuigalway.ie)

#### 14:45–15:00: EMS2014-198

Hydrometeorological extremes in Southern Moravia, Czech Republic, since AD 1701

**Rudolf Brázdil** Kateřina Chromá, Lukáš Dolák, Ladislava Řezníčková, and Hubert Valášek

Masaryk University, Institute of Geography, Brno, Czech Republic (brazdil@sci.muni.cz)

#### 15:00–15:15: EMS2014-141

Meteorological reconstruction of major floods in early instrumental period in Catalonia (NE Iberian Peninsula)

**Jordi Mazon**, Joan Carles Balasch, Mariano Barriendos, Josep Lluís Ruiz-Bellet, David Pino, Jordi Tuset

TechnicDepartment of Applied Physics, Universitat Politècnica de Catalunya · BarcelonaTech, Castelldefels, Spain | University of Catalonia - BarcelonaTech, Applied Physics Department, Spain  
(jordi.mazon@upc.edu)

#### 15:15–15:30: EMS2014-528

J. Felbiger and his meteorological observations at Bratislava, Slovakia in early 1780s

**Marián Melo**, Peter Pišút

Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia  
(melo@fmph.uniba.sk)

#### 15:30–15:45: EMS2014-144

Understanding Historical Arctic Sea Ice Terms

**Dinah Molloy**, Matthew Ayre

Ireland (dmt@compuserve.com) Scott Polar Research Institute Cambridge (UK), Irish Meteorological Society

#### 15:45–16:00: EMS2014-562

Wi and NAO in regional climate model's experiments

**Juan Pedro Montavez**, Almudena García-García, Juan Jose Gómez-Navarro

Department of Physics, Universidad de Murcia, Murcia, Spain (montavez@um.es)

#### END OF ORAL PROGRAMME MC3

## Research and services for socio-economic sectors

### SE1/CE6 Creating national and regional climate services in Europe through partnerships (co-organized)

**Convener:** Clare Goodess

**Co-Conveners:** Mark McCarthy; Tanja Cegnár; Ge Verver; Christof Appenzeller

**Lecture Room:** Zenit

**14:00–16:00**

**Chairperson(s):** Clare Goodess

#### Partnerships

**14:00–14:15: EMS2014-614**

Fostering collaborations to support climate services

**Catherine Vaughan**, Stephen Zebiak  
Columbia University, International Research Institute for Climate & Society, Palisades, NY, United States  
(cv2195@columbia.edu)

**14:15–14:30: EMS2014-663**

The European Climate Service Partnership

**Chris Hewitt**, Carlo Buontempo  
UK Met Office Hadley Centre  
(chris.hewitt@metoffice.gov.uk, carlo.buontempo@metoffice.gov.uk)

#### Lessons learned

**14:30–14:45: EMS2014-611**

CSC - Germany: Lessons learned and the European perspective

**Irene Fischer-Bruns**, Maria Máñez Costa, Daniela Jacob, Guy Brasseur  
Helmholtz-Zentrum Geesthacht, Climate Service Center

**14:45–15:00: EMS2014-232**

Towards a development of a Mediterranean Climate Services Network: lesson learnt and recommendations from CLIMRUN project

**Alessandro Dell'Aquila**, Clare Goodess, Paolo Michele Ruti and the The CLIM-RUN Climate Expert Team and Stakeholder Expert Team  
ENEA, UTMEA-CLIM, UTMEA-CLIM, Rome, Italy  
(alessandro.dellaquila@enea.it)

**15:00–15:15: EMS2014-112**

Future projections of climate indices support adaptation policies in Switzerland

**Elias M. Zubler**, Andreas M. Fischer, Mark A. Liniger, Christof Appenzeller  
MeteoSwiss, Federal Office of Meteorology and Climatology, Zurich, Switzerland  
(elias.zubler@meteoswiss.ch)

#### New data initiatives and users

**15:15–15:30: EMS2014-411**

Defining User Needs in Copernicus Climate Change Services

**Hilppa Gregow**, Kirsti Jylhä, Hanna Mäkelä, Andrea Kaiser-Weiss, Andre Obregon, David Tan, Paul Poli, Frank Kaspar  
Finnish Meteorological Institute, Climate Service Center, Helsinki, Finland (hilppa.gregow@fmi.fi)

**15:30–15:45: EMS2014-367**

FP-7 CORE-CLIMAX: How to ensure sustainable, transparent, and traceable generation of climate data records?

Joerg Schulz, **Viju John**, Andrea Kaiser-Weiss, Rob Roebeling, Andre Obregon, Else Swinnen, Carolien Tote, Ali Nardir Arslan, Jean-Christophe Calvet, Hilppa Gregow, Terhikki Manninen, Paul Poli, Bob Su, David Tan, Wim Timmermans, Yijian Zeng  
EUMETSAT, Darmstadt, Germany  
(Joerg.Schulz@eumetsat.int)

#### Evaluation

**15:45–16:00: EMS2014-622**

Climate service evaluation: design elements and metrics

**Catherine Vaughan**, Suraje Dessai  
International Research Institute for Climate & Society, Columbia University, Palisades, NY, United States  
(cv2195@columbia.edu), Sustainability Research Institute, School for Earth & the Environment, Leeds University, Leeds United Kingdom

#### END OF ORAL PROGRAMME SE1/CE6

### SE5 GFCS: services developed for (climate) vulnerable areas with a focus on non-European regions.

**Convener:** Filipe Lúcio

**Co-Convener:** Aryan F.V. van Engelen

**Lecture Room:** Zenit

**08:30–10:30**

**Chairperson(s):** Filipe Lucio and Aryan F.V. van Engelen

#### Opening

**08:30–08:45: EMS2014-52**

Enhancing National Climate Services in Africa

**Tufa Dinku**, John Del Corral, Remi Cousin  
Columbia University, International Research Institute for Climate and Society(IRI), Palisades, United States  
(tufa@cheerful.com)

**08:45–09:00: EMS2014-154**

The SASSCAL contribution to climate observation, climate data management and data rescue in southern Africa

**Frank Kaspar**, Joseph Kanyanga, Molemoeng C. Matsheka, Francisco Osvaldo S. Neto, Rafael Posada, Jens Riede, Griefy J. Stegling, Mary Seely, Birger Tinz, Jan Tolzmann  
DWD, Germany (frank.kaspar@dwd.de)

**09:00–09:15: EMS2014-140**

ICA&D: The International Climate Assessment & Dataset - climate services cross borders in South East Asia, South America and West Africa

**Aryan F.V. van Engelen**

KNMI, De Bilt, Netherlands  
(aryan.van.engelen@knmi.nl)

**09:15–09:30: EMS2014-639**

Climate services in South East Asia: new developments in the Southeast Asian Climate Assessment & Dataset

**Gerard van der Schrier**, Else van den Besselaar,

Albert Klein Tank, Aryan van Engelen, Verver Ge KNMI, the Netherlands

**09:30–09:45: EMS2014-256**

A real-time dengue early warning driven by seasonal climate forecasts

**Rachel Lowe**, Christovam Barcellos, Caio A. S. Coelho, Trevor Bailey, Giovanini Coleho, Richard Graham, Tim Jupp, Walter Ramalho, Marilia Sa Carvalho, David B. Stephenson, Xavier Rodo

Institut Català de Ciències del Clima (IC3), Climate Dynamics and Impacts Unit, Barcelona, Spain  
(rachel.lowe@ic3.cat)

**09:45–10:00: EMS2014-171**

A framework for provider-user engagement to drive climate service development

**Carlo Buontempo**, Jane Strachan, Chris Hewitt, Keeley Ellett

Met Office, Hadley Centre, Exeter, United Kingdom  
(carlo.buontempo@metoffice.gov.uk)

**10:00–10:15: EMS2014-127**

Users' engagement in climate service development: the case of EUPORIAS

**Carlo Buontempo** and the EUPORIAS science and stakeholder Team

Met Office, Hadley Centre, Exeter, United Kingdom  
(carlo.buontempo@metoffice.gov.uk)

**10:15–10:30: EMS2014-621**

Climate services for society: a bird's eye view

**Catherine Vaughan**, Suraje Dessai

International Research Institute for Climate & Society, Columbia University, Palisades, NY, United States  
(cv2195@columbia.edu), School for Earth & the Environment, Sustainability Research Institute, Leeds University, Leeds, UK

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Filipe Lucio and Aryan F.V. van Engelen

**11:30–11:45: EMS2014-236**

Impact of 2c warming over the vulnerable areas of Africa region in the AFRICA-CORDEX simulations

**Alessandro Dell'Aquila**, Sandro Calmanti, Paolo Michele Ruti

ENEA, UTMEA-CLIM, UTMEA-CLIM, Rome, Italy  
(alessandro.dellaquila@enea.it)

**11:45–12:00: EMS2014-56**

Study on risk management of extreme weather related disasters and climate change adaptation in Malawi and Zambia (SAFE-MET)

**Ari Venäläinen**, Karoliina Pilli-Sihvola, Minchul Sohn, Heikki Tuomenvirta, Reija Ruuhela, Otto Hyvärinen, Senja Väättäinen, Elina Kululanga, Lucy Mtilatila, Felix Imbwae, Lyson Phiri

Finnish Meteorological Institute, Climate research and applications, Helsinki, Finland (ari.venalainen@fmi.fi)

**12:00–12:15: EMS2014-594**

Operationalizing a transferrable open source climate information service - lessons from the Indonesian-German DATCLIM project

**Gerhard Rappold**, Edwin Aldrian, Irfan Arif, Martin Dresen, Mohammad Fadli, Mona Thiele, Boris Orlowsky, Antoyo Setyadipratiko, Till Sterzel, Widada Sulistya, Ariyanto Yohanes Wibowo

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

**12:15–12:30: EMS2014-214**

Testing and evaluating the utility of three climate projection tools for Caribbean decision makers - the CARIWIG case studies

**Clare Goodess**, Ottis Joslyn

University of East Anglia, Climatic Research Unit, Norwich, United Kingdom (c.goodess@uea.ac.uk)

**12:30–12:45: EMS2014-615**

Report from the CSP Developing Countries Task Team

**Stephen Zebiak**, Jacqueline Spence, Catherine Vaughan

Columbia University, International Research Institute for Climate & Society, Palisades, NY, United States  
(cv2195@columbia.edu)

**12:45–13:00: EMS2014-164**

Development of Sectorally-Oriented Seasonal Forecast Indicators for New Zealand

**Yinpeng Li**, Chonghua Yin, Peter Ulrich, Reece Hill  
New Zealand (yinpengli@climsystems.com)

**Discussion and Concluding Remarks**

**Q&A session**

**END OF ORAL PROGRAMME SE5**

## Communication and Education

### CE2 Adaptation to climate change

**Convener:** André Jol  
**Co-Convener:** Tanja Cegnar  
**Lecture Room:** Taurus

**08:30–10:30**

**Chairperson(s):** A. Jol

**09:00–09:30: EMS2014-293**

The European Climate Adaptation Platform (Climate-ADAPT) (solicited)  
**André Jol**, Kati Mattern  
 European Environment Agency, Head of group vulnerability and adaptation, Copenhagen K, Denmark  
 (andre.jol@eea.europa.eu)

**09:30–10:00: EMS2014-247**

Transnational challenges for climate cooperation - results from the Saxon-Czech project INTERKLIM  
**Nils Feske**, Lenka Hájková, Petr Skalák, Siv-Ann Lippert, Lars Schöder, Andreas Hoy  
 Saxon State Office for Environment, Agriculture and Geology (LfULG), Germany (nils.feske@yahoo.de)

**10:00–10:30: EMS2014-632**

Assessing Patterns of Vulnerability in Germany  
**Inke Schauser**, Mark Fleischhauer, Stefan Greiving, Walter Kahlenborn, Christian Lindner, Johannes Lückenötter, Stefan Schneiderbauer, Marc Zebisch  
 Federal Environment Agency, Dessau-Roßlau, Germany

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** A. Jol

**11:30–11:45: EMS2014-631**

Strategy on Adaptation to Climate Change in the Czech Republic  
**Jana Kontrosová**  
 Ministry of the Environment, Czech Republic

**11:45–12:15: EMS2014-585**

Climate information support for adaptation initiatives: Examples from the German Climate Service Center  
**Barbara Hennemuth**, Andreas Hänslar, Daniela Jacob, Elke Keup-Thiel, Susanne Pfeifer, Diana Rechid  
 Helmholtz-Zentrum Geesthacht, Climate Service Center, Germany (barbara.hennemuth@hzg.de)

**12:15–12:30: EMS2014-180**

Development of a web based GIS application to provide climate adaptation data for decision-makers  
**Nora Teichert**, Ronny Petrik, David Grawe, K. Heinke Schluenzen  
 Meteorological Institute, University of Hamburg, Germany (nora.teichert@uni-hamburg.de)

**12:30–12:45: EMS2014-87**

The VIADUC project: innovate in climate adaptation thanks to service design  
**Lola Corre**, Philippe Dandin, David L'hôte  
 Météo-France, Toulouse, France (lola.corre@meteo.fr, philippe.dandin@meteo.fr)

**12:45–12:50:**

**Short poster presentation**

**12:50–13:00:**

**Final remarks and wrap up of the session**

**END OF ORAL PROGRAMME CE2**

## Numerical Weather Prediction

### NWP1 Dynamics and predictability of high impact weather in operational forecasting, including nowcasting

**Convener:** Tim Hewson  
**Co-Convener:** Suzanne Gray  
**Lecture Room:** Leo + Virgo

**08:30–10:30**

**Chairperson(s):** Ron McTaggart-Cowan

**Cyclones, High Impact Weather and Warnings**

**08:30–08:45: EMS2014-12**

"Group velocity thinking" to understand interaction between extra-tropical cyclones  
**Anders Persson**  
 Swedish Meteorological Society, Norrköping, Sweden  
 (andersoscar.persson@gmail.com)

**08:45–09:00: EMS2014-641**

Managing extreme weather in the UK winter of 2013/14  
**Alex Fox**, Nick Grahame  
 Met Office, Exeter, UK

**09:00–09:15: EMS2014-90**

Predictability and warnings of the East Coast Surge - December 5-6th 2013  
**Charlie Pilling**  
 Flood Forecasting Centre - United Kingdom  
 (charlie.pilling@metoffice.gov.uk)

**09:15–09:30: EMS2014-587**

Summer in the city - High Resolution Modelling and Validation of Urban Weather and Human Thermal Comfort

**Reinder Ronda**, Gert-Jan Steeneveld, Jisk Attema, Bert Heusinkveld, Albert Holtslag  
Meteorology and Air Quality Section, Wageningen University

**09:30–09:45: EMS2014-385**

MATISSE: an ArcGIS tool monitoring and nowcasting meteorological hazards  
Valeria Rillo, **Alessandra Lucia Zollo**, Paola Mercogliano  
EuroMediterranean Centre on Climate Change, Impact on Soil and Coast Division, Capua, Italy, Italian Aerospace Research Center (CIRA), Meteo System & Instrumentation Laboratory, Capua

**Convection and Parametrisation Impact**

**09:45–10:00: EMS2014-517**

Performance of the Met Office's convection permitting models on the Winter 2013-2014 severe weather events over the UK.

**Bornemann Jorge**, Neal Robert  
Met Office (UK), Met R&D, Exeter, United Kingdom  
(jorge.bornemann@metoffice.gov.uk)

**10:00–10:15: EMS2014-600**

Nowcasting and forecasting of lightning over Greece in the frame of Talos project

**Konstantinos Lagouvardos**, Vassiliki Kotroni, Theodoros Giannaros, Athanasios Karagiannidis  
National Observatory of Athens, Institute of Environmental Research and Sustainable Development, Athens, Greece (lagouvar@noa.gr)

**10:15–10:30: EMS2014-439**

Evolution of conserved variables related to storm cells during severe convection in a mesoscale model

**Chris Weijenborg**, Jeffrey Chagnon, Petra Friederichs, Suzanne Gray, Andreas Hense  
University of Bonn, Meteorological Institute, Bonn, Germany (cwborg@uni-bonn.de)

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Tim Hewson

**11:30–11:45: EMS2014-628**

The Effect of the Parameterizations of Convection on Rainfall Events in Poland

**Bogumil Jakubiak**, Richard Hodur  
University of Warsaw, ICM, Warsaw, Poland  
(jakubiak@icm.edu.pl)

**11:45–12:00: EMS2014-423**

Improving Numerical Guidance for Freezing Rain Events: Richardson Number Hysteresis (solicited)

**Ron McTaggart-Cowan**, Ayrton Zadra  
Numerical Weather Prediction Research Section, Environment Canada, Canada

**END OF ORAL PROGRAMME NWP1**

## NWP5/ASI14 Mountain Meteorology (co-organized)

**Convener:** Michael Sprenger

**Co-Conveners:** Jürg Schmidli; Radmila Brozková

**Lecture Room:** Taurus

**14:00–16:00**

**Chairperson(s):** Radmila Brozková

**Clouds and Precipitation**

**14:00–14:15: EMS2014-196**

Which Flow Regime leads to Banner Cloud Formation?

**Isabelle Prestel**, Volkmar Wirth  
Institute for Atmospheric Physics, University, Mainz, Germany

**14:15–14:30: EMS2014-76**

Numerical simulations of sheared conditionally unstable flows over a mountain ridge

**Mario Marcello Miglietta**, Richard Rotunno  
ISAC-CNR, Lecce, Italy (m.miglietta@isac.cnr.it)

**14:30–14:45: EMS2014-267**

June 2013 flood case: on the role of potential vorticity banners past orography

**Radmila Brozková**, Ján Mašek  
ONPP/CHMI, Prague, Czech Republic  
(radmila.brozkova@chmi.cz, jan.masek@chmi.cz)

**14:45–15:00: EMS2014-97**

Statistical approach to the snowfall height forecast problem in eastern Alps

**Arturo Pucillo**, Agostino Manzato, Stefano Micheletti  
ARPA FVG (OSMER), Visco (UD), Italy  
(arturo.pucillo@meteo.fvg.it)

**Sochi and Wind Forecasting**

**15:00–15:15: EMS2014-272**

Field campaign and information resources of the FROST-2014 project

**Dmitry Kiktev**, Elena Astakhova, Michael Tsyrluninov  
Hydrometcentre of Russia, Moscow, Russian Federation (kiktev@mecom.ru)

**15:30–15:45: EMS2014-432**

First Results of the Bora Flow Forecast Verification in Terminal Aerodrome Forecasts in Croatia

**Jadran Jurković**, Igor Kos, and Ladislav Čoso  
Croatia (jadran.jurkovic@crocontrol.hr)

**15:45–16:00: EMS2014-482**

Ensemble Wind Forecasting Based on the HARMONIE Model and Adaptive Finite Elements in Complex Orography

**Albert Oliver**, Eduardo Rodríguez, José María Escobar, Gustavo Montero, Mariano Hortal, Javier Calvo, José Manuel Cascón, Rafael Montenegro  
University Institute for Intelligent Systems and Numerical Applications in Engineering (SIANI), University of Las Palmas de Gran Canaria (ULPGC) Campus de Tafira, 35017 Las Palmas de Gran Canaria, Spain

**END OF ORAL PROGRAMME NWP5/ASI14**

## The Atmospheric System and its Interactions

### ASI4 Coastal meteorology and oceanography

**Convener:** Mario Marcello Miglietta

**Co-Conveners:** Silvio Gualdi; Anna Maria Sempreviva; Manel Grifoll

**Lecture Room:** Tycho

**08:30–10:30**

**Chairperson(s):** M. M. Miglietta

**08:30–09:00: EMS2014-578**

The exceptional Winter 2012 conditions in the Northern Adriatic Sea: an analysis using the COAWST Modelling System (solicited)

**Sandro Carniel**, M. Marcello Miglietta, Antonio Ricchi, John C. Warner, Joseph B. Zambon, Alvise Benetazzo, Davide Bonaldo, Francesco M. Falcieri, Andrea Bergamasco, Pierpaolo Falco, Mauro Sclavo  
CNR-ISMAR, Venice, Dept. Oceanography, Venice, Italy (sandro.carniel@ismar.cnr.it)

**09:00–09:15: EMS2014-555**

High-resolution simulation of an intense cold Bora outbreak: Importance of SST initialization

**Silvio Davolio**, Paolo Stocchi, Sandro Carniel, Alvise Benetazzo, Emanuele Bohm, Mariangela Ravaioli, Francesco Riminucci, XiaoMing Li  
ISAC - CNR, Bologna, Italy (s.davolio@isac.cnr.it)

**09:15–09:30: EMS2014-113**

Coupled ocean-atmosphere-wave modeling of Sant Jordi Bay (NW Mediterranean Sea)

**Manel Grifoll**, Jorge Navarro, Elena Pallarès, Pedro Jimenez, Manuel Espino, Ana Palomares  
LIM, Technical University of Catalonia, Barcelona, Spain (manel.grifoll@upc.edu)

**09:30–09:45: EMS2014-629**

High resolution unstructured grid for wave forecasting at coastal areas

**Angel Martinez-Ferrer**, Justo Conde-Criado, Ernesto Barrera-Rodriguez  
Spanish Meteorological Agency, Madrid, Spain (amartinezf@aemet.es)

**09:45–10:00: EMS2014-313**

Sensitivity of Mid-Atlantic Coastal Breezes to Surface Variability

**Dana Veron**, Justin Gilchrist, John Lodise, Chris Hughes  
College of Earth, Ocean, and Environment, University of Delaware, Newark, DE, United States (dveron@udel.edu)

**10:00–10:15: EMS2014-653**

The Iberian Peninsula Coastal Low-Level Jet Climatology and Dynamics

**Alvaro Semedo**, Nadia Rijo, Daniela C. A. Lima, Pedro M. A. Miranda, Pedro M. M. Soares, Rita Cardoso  
Escola Naval-CINAV, Base Naval de Lisboa, Alfeite, 2810-001 Almada, Portugal, milho.semedo@marinha.pt, Department of Earth Sciences, Uppsala University, Uppsala, Sweden

**10:15–10:30: Poster introduction**

**10:30 Coffee Break & Poster Sessions**

**11:30–11:45: EMS2014-654**

The Impact of Climate Change on the Iberian Coastal Low-Level Jet: EURO-CORDEX Projections

**Alvaro Semedo**, Daniela C. A. Lima, Pedro M. M. Soares, Rita Cardoso  
Escola Naval-CINAV, Base Naval de Lisboa, Alfeite, 2810-001 Almada, Portugal, milho.semedo@marinha.pt, Department of Earth Sciences, Uppsala University, Uppsala, Sweden

**11:45–12:00: EMS2014-638**

An efficient multi-model approach for coastal flooding due to tropical cyclones

**Antonio Espejo**, Ana Rueda, Fernando Mendez, Antonio Tomas, Alba Cid, Sonia Castanedo, Manuel del Jesus, Gabriel Diaz-Hernandez, Alexandra Toimil, Ana Silio-Calzada, Javier Diez, Raul Medina, Ben Gouldby  
Environmental Hydraulics Institute "IH Cantabria", Universidad de Cantabria, Spain

**12:00–12:15: EMS2014-603**

Averaged coastal boundary-layer profiles derived from acoustic sounding and sonic data

**Damyan Barantiev**, **Ekaterina Batchvarova**, Mikhail Novitzky  
National Institute of Meteorology and Hydrology, Bulgarian Academy of Sciences, Sofia, Bulgaria;

**12:15–12:30: EMS2014-137**

Snow bands over the gulf of Finland

**Jordi Mazon**, Sami Niemelä, David Pino, Hannu Savijärvi, Timo Vihma  
Department of Applied Physics. UPC-BarcelonaTech, Barcelona, Spain

**12:30–12:45: EMS2014-552**

2013-2014 winter storms: climatological assessment and impacts upon the Cantabrian coastline (Northern Spain)

**Domingo Rasilla**, Juan Carlos García-Codrón  
GIMENA, Departamento de Geografía, Urbanismo y OT. Universidad de Cantabria, Spain (rasillad@unican.es)

**12:45–13:00: EMS2014-58**

An intense tropical-like cyclone in the western Mediterranean basin: numerical simulations and satellite analysis

**Mario Marcello Miglietta**, Giancarlo Modugno, Sante Laviola, Vincenzo Levizzani  
ISAC-CNR, Italy (m.miglietta@isac.cnr.it)

**END OF ORAL PROGRAMME ASI4**



## ASI7 Atmospheric hazards

**Convener:** Fulvio Stel  
**Co-Convener:** Dario Gaiotti  
**Lecture Room:** Leo + Virgo

**11:30–13:00 (NWP1 until 12:00)**

**Chairperson(s):** Fulvio Stel

**12:00–12:15: EMS2014-401**

Using numerical model for detailed spatial calculation of extreme wind climate

**Jiri Hosek**, David Hanslian, Lukas Pop  
 Institute of Atmospheric Physics, Meteorology, Praha,  
 Czech Republic (hosek@ufa.cas.cz)

**12:15–12:30: EMS2014-598**

The sensitivity of mesoscale heavy precipitation on atmospheric boundary layer over complex orography

**Marco Bettiol**, Dario B. Gaiotti, Fulvio Stel  
 University of Trieste - Department of Physics

**12:30–12:45: EMS2014-96**

Atmospheric circulation and land-atmosphere interactions in regional climate models during major heat waves in Central Europe

**Ondřej Lhotka**, Jan Kysely  
 Institute of Atmospheric Physics AS CR, Prague, Czech Republic, Faculty of Science, Charles University, Prague, Czech Republic

**12:45–13:00: EMS2014-436**

Cyclonic windstorms over Europe and their representation in models

**Tim Hewson**  
 ECMWF, Forecast department - Evaluation section, Reading, United Kingdom (tim.hewson@ecmwf.int)

**13:00 Lunch Break**

**14:00–16:00**

**Chairperson(s):** Fulvio Stel

**14:00–14:15: EMS2014-6**

Will flights get bumpier because of climate change?

**Paul Williams**, Manoj Joshi  
 University of Reading, Department of Meteorology, Reading, United Kingdom (p.d.williams@reading.ac.uk)

**14:15–14:30: EMS2014-451**

How to evaluate the extremeness of heavy precipitation events

**Miloslav Müller**, Lenka Chrova, Eva Holtanova, Marek Kaspar, Anna Valerianova  
 Institute of Atmospheric Physics, Department of Meteorology, Prague, Czech Republic (muller@ufa.cas.cz), Charles University in Prague, Faculty of Science, Prague, Czech Republic

**14:30–14:45: EMS2014-294**

A rare but not impossible phenomenon in an arid Country: Heavy Rainfall in Egypt.

**Marina Baldi**, Magdy Kamal Badir, Hamdey Abd El Rahma  
 CNR - Institute of Biometeorology, Roma, Italy (m.baldi@ibimet.cnr.it)

**14:45–15:00: EMS2014-366**

Spatial Distribution of Disasters by Track of Typhoons in Korea

**Seung-Wook Lee**, Suk-Hee Ahn, Ki-Seon Choi, Jeoung-Yun Kim, Baek-Jo Kim  
 Policy research division, National Institute of Meteorological Research (NIMR), Republic of Korea (antcraft@korea.kr)

**15:00–15:15: EMS2014-563**

Synoptic conditions during the occurrence of long series of storm days in Central and Southern Europe

**Katarzyna Grabowska**, Joanna Popławska  
 Department of Climatology, Faculty of Geography and Regional Studies, University of Warsaw, Warsaw, Poland (kasiagra@uw.edu.pl)

**15:15–15:30: EMS2014-158**

A Climatology of Greek Supercells

**Dimitrios Foris**, Vasileios Foris  
 Meteorological Applications Center, Hellenic Agricultural Insurance Organization, Thessaloniki, Greece (d.foris@yahoo.com)

**15:30–15:45: EMS2014-565**

Warning maps against extreme meteorological hazards - an example from Poland

Zbigniew Ustrnul, **Agnieszka Wypych**, Ewelina Henek, Maciej Maciejewski  
 Institute of Meteorology and Water Management - National Research Institute, Poland, Jagiellonian University, Krakow, Poland

**15:45–16:00: EMS2014-607**

Supercell tornadoes in Poland - case study

**Joanna Popławska**, Katarzyna Grabowska  
 University of Warsaw, Faculty of Geography and Regional Studies, Department of Climatology, Warsaw, Poland (joanna.poplawska@uw.edu.pl)

**END OF ORAL PROGRAMME ASI7**

## ASI13 Energy Meteorology

**Convener:** Sven-Erik Gryning

**Co-Conveners:** Ekaterina Batchvarova; Marion Schroedter-Homscheidt; Lucien Wald

**Lecture Room:** Nadir

**08:30–10:30**

**Chairperson(s):** Sven-Erik Gryning

**08:30–08:45: EMS2014-219**

Turbulent Interaction of Wind Turbines with the Atmospheric Boundary Layer above Land Surface Observed by Small Unmanned Research Aircraft  
**Jens Bange**, Norman Wildmann  
University of Tübingen, Centre for Applied Geoscience, Tübingen, Germany (jens.bange@uni-tuebingen.de)

**08:45–09:00: EMS2014-118**

Timing of wind gust maxima within a 100 m layer above the ground  
**Irene Suomi**, Sven-Erik Gryning, Rogier Floors, Timo Vihma, Carl Fortelius  
Finnish Meteorological Institute, Meteorological Research & Development, Helsinki, Finland (Irene.Suomi@fmi.fi)

**09:00–09:15: EMS2014-244**

Stochastic simulation of spatial wind gusts  
**René Bos**, Wim Bierbooms, Gerard van Bussel  
Wind Energy Group, Faculty of Aerospace Engineering, Delft University of Technology, Kluyverweg 1, 2629 HS Delft, the Netherlands (r.bos-1@tudelft.nl)

**09:15–09:30: EMS2014-371**

Random forests ramp forecasts for groups of wind farms  
**Pål Preede Revheim**, Hans Georg Beyer  
University of Agder, Department of Engineering, Grimstad, Norway (palpr@uia.no)

**09:30–09:45: EMS2014-383**

An LES study of wind turbine wakes within the offshore wind farm 'EnBW Baltic 1'  
**Martin Dörenkämper**, Björn Witha, Gerald Steinfeld, Detlev Heinemann, Martin Kühn  
Carl von Ossietzky University Oldenburg, Institute of Physics, ForWind - Center for Wind Energy Research, Germany (martin.doerenskaemper@forwind.de)

**09:45–10:00: EMS2014-466**

Variations in offshore wind turbine wake profiles with different inflow conditions of non-wake-affected upstream wind  
**Alexander Cassola**, Andy Oldroyd, Brian Gribben, Neil Adams, Breanne Gellatly, Matthew Stickland  
Oldbaum Services Ltd., Stirling, United Kingdom (a.cassola@oldbaumservices.co.uk)

**10:00–10:15: EMS2014-495**

Wind turbine wake deflection in different atmospheric stratifications  
**Lukas Vollmer**, Marc Bromm, Gerald Steinfeld, Detlev Heinemann, Martin Kühn  
ForWind - Center for Wind Energy Research, Carl von Ossietzky Universität Oldenburg, Oldenburg, Germany (lukas.vollmer@uni-oldenburg.de)

**10:15–10:30: EMS2014-566**

Large-eddy simulations of the internal boundary layer and wake flow within very large wind farms  
**Björn Witha**, Gerald Steinfeld, Detlev Heinemann  
ForWind - Center for Wind Energy Research, University of Oldenburg, Germany (bjoern.witha@forwind.de)

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Ekaterina Batchvarova

**11:30–11:45: EMS2014-122**

Improvement of a wind farm parameterization for mesoscale models based on a parameter study with the large-eddy simulation model PALM  
**Gerald Steinfeld**, Björn Witha, Martin Dörenkämper, Lukas Vollmer, Hauke Wurps, Detlev Heinemann  
Carl-von-Ossietzky-Universität Oldenburg, ForWind - Zentrum für Windenergieforschung, Energy Meteorology, Oldenburg, Germany (gerald.steinfeld@forwind.de)

**11:45–12:00: EMS2014-374**

Probabilistic Wind Farm Group Forecasts using Bayesian Model Averaging  
**Pål Preede Revheim**, Hans Georg Beyer  
University of Agder, Department of Engineering, Grimstad, Norway (palpr@uia.no)

**12:00–12:15: EMS2014-421**

The relation between spatial and temporal mesoscale wind fluctuations  
**Anna Mehrens**, Lueder von Bremen, Detlev Heinemann  
ForWind, Center for Wind Energy Research, University of Oldenburg, Germany (anna.mehrens@forwind.de)

**12:15–12:30: EMS2014-84**

Assessing the complementarity of present and future wind power production in different European countries: long term (1961–2050) results from ENSEMBLES regional climate models  
**Fabio Monforti-Ferrario**, Marco Gaetani  
Italy (fabio.monforti-ferrario@ec.europa.eu)

**12:30–12:45: EMS2014-282**

Are two years long enough? - The effect of the length of numerical model data on wind resource assessments  
**Jessica Standen**, Karen Walter, Clive Wilson, Alasdair Skea  
Met Office, Exeter, UK (jessica.standen@metoffice.gov.uk)

**12:45–13:00: EMS2014-315**

The regional impacts of mid-term wind power in several deployment scenarios  
**Robert Vautard**, Isabelle Tobin, Sonia Jerez, Françoise Thais  
LSCE/IPSL laboratoire CEA/CNRS/UVSQ

**13:00 Lunch Break**

14:00–16:00

**Chairperson(s):** Sven-Erik Gryning

**14:00–14:15: EMS2014-88**

The New European Wind Atlas  
**Erik Lundtang Petersen**, Hans E. Jørgensen, Jakob Mann, Ib Troen  
DTU Wind Energy, Technical University of Denmark  
Roskilde, Denmark (erlu@dtu.dk)

**14:15–14:30: EMS2014-425**

Comparison of measure-correlate-predict approaches  
**David Hanslian**, Jiří Hošek  
Institute of Atmospheric Physics, Academy of Sciences,  
Prague, Czech Republic, Faculty of Mathematics and  
Physics, Charles University, Prague, Czech Republic

**14:30–14:45: EMS2014-445**

Assessing climate change impacts on European wind  
power production  
**Isabelle Tobin**, Robert Vautard, Sonia Jerez,  
Françoise Thais, Michel Déqué, Sven Kotlarski,  
Cathrine Fox Maule, Erik Van Meijgaard, Grigory  
Nikulin, Claas Teichmann, Thomas Noël  
LSCE/IPSL/CNRS, Gif sur Yvette, France  
(isabelle.tobin@lsce.ipsl.fr)

**14:45–15:00: EMS2014-212**

Simulating the Future Wind Energy Resource of Ireland  
using a Multi Model Ensemble Approach  
**Paul Nolan**, Alastair McKinstry  
Irish Centre for High-End Computing (ICHEC)

**15:00–15:15: EMS2014-435**

The variability of energy demand and supply in space  
and time: a semi-operational prototype to forecast  
climate from weeks to months ahead  
Francisco J. Doblas-Reyes, **Melanie Davis**, Verónica  
Torralba Fernandez, Nube Gonzalez-Reviriego  
Institut Català de Ciències del Clima (IC3), Barcelona,  
Spain

**15:15–15:30: EMS2014-129**

A climate change methodology for the UK gas industry  
**Edward Pope**, Kate Brown, Justin Krijnen, Helen  
Hanlon  
UK Met Office, Hadley Centre, United Kingdom  
(edward.pope@metoffice.gov.uk)

**15:30–15:45: EMS2014-360**

Estimating substitution and climatic effects of forest  
biomass production and utilization for the entire logistic  
chain: life cycle perspective  
**Ashraful Alam**, Antti Kilpeläinen, Seppo Kellomäki  
University of Eastern Finland, School of Forest  
Sciences, Finland (ashraful.alam@uef.fi)

**15:45–16:00: EMS2014-342**

Optimized significant wave height forecasts and their  
benefit on the workability at Offshore Wind Farms  
**Thomas Kanefendt**, Arne Wessel, Britta Mey  
Fraunhofer Institute for Wind Energy and Energy  
System Technology IWES, Division Energy Economy  
and Grid Operation, Germany  
(thomas.kanefendt@iwes.fraunhofer.de)

**END OF ORAL PROGRAMME ASI13**

## Side Meetings & Workshops

### SIM4 Tips for effectively dealing with the media – training workshop (public, registration requested)

**Convener:** Tanja Cegnar  
**Lecture Room:** Aquarius

For details see page17.

08:30–13:00

### SIM14 ESSL Executive Board Meeting (by invitation only)

**Convener:** Alois M. Holzer  
**Lecture Room:** Quadrant

12:00–15:00

### SIM9 The future of the EMS Annual Meetings: how to organise a conference with reduced carbon foot print (public)

**Conveners:** Renate Hagedorn; Martina Junge  
**Lecture Room:** Aquarius

For details see page17.

14:00–16:00

### SIM10 Harry Otten Board Meeting (by invitation only)

**Convener:** Dennis Schulze  
**Lecture Room:** Quadrant

16:00–18:00

### SIM13 ESSL General Assembly (by invitation only)

**Convener:** Alois M. Holzer  
**Lecture Room:** Aquarius

17:30–19:00

## European Conference on Applied Climatology (ECAC)

### Monitoring climate and climate change

#### MC3 Historical climatology and paleoclimatology

**Convener:** R. Brázdil

**Co-Conveners:** Ulf Buentgen; Fidel González-Rouco; Ricardo García-Herrera

**Poster Area:** Meridian Left Back

**Chairperson(s):** R. Brázdil

**Attendance Time:** 16:00–17:00

##### LB1: EMS2014-173

Reconstruction of long-term instrumental series.  
Rainfall data series for Barcelona (NE Spain),  
1786–2013

**Mariano Barriendos**, Marc Prohom, Arturo Sanchez-Lorenzo

Department of Modern History, University of Barcelona, Barcelona, Spain (barriendos@telefonica.net)

##### LB2: EMS2014-287

Climatic characteristics of floods from the  
PREDIFLOOD Project Database, Catalonia (NE Iberian Peninsula), AD1033–2013

**Mariano Barriendos**, Josep Carles Balasch, Jordi Mazon, David Pino, Josep Lluís Ruiz-Bellet, Jordi Tuset  
Department of Modern History, University of Barcelona, Barcelona, Spain (barriendos@telefonica.net)

##### LB3: EMS2014-298

Reconstructed seasonal precipitation in Portugal vs. large-scale teleconnections

**João Andrade Santos**, Maria Fátima Carneiro, Maria João Alcoforado

Centre for the Research and Technology of Agro-environmental and Biological Sciences, CITAB, Universidade de Trás-os-Montes e Alto Douro, UTAD, 5001-801 Vila Real, Portugal (jsantos@utad.pt)

##### LB4: EMS2014-62

Presentation of the goals and first results of the Swiss National Science Foundation research project

**Oliver Wetter**

University of Berne, Institute of History, WSU, Bern, Switzerland (oliver.wetter@hist.unibe.ch)

##### LB5: EMS2014-396

Paleoclimate reconstructions based on combined annual time series from lake sediments, tree rings and ice core in Altai Mountains (South Siberia)

**Ivan Kalugin**, Andrey Darin, Valeriy Babich, Tatyana Markovich

Institute of Geology and Mineralogy of SB RAS, Russian Federation (ikalugin@igm.nsc.ru)

#### END OF POSTER PROGRAMME MC3

## Research and services for socio-economic sectors

### SE1/CE6 Creating national and regional climate services in Europe through partnerships (co-organized)

**Convener:** Clare Goodess

**Co-Conveners:** Mark McCarthy; Tanja Cegnar; Ge Verver; Christof Appenzeller

**Poster Area:** Meridian Left Back

**Chairperson(s):** Clare Goodess

**Attendance Time:** 16:00–17:00

##### LB29: EMS2014-44

The international North Sea Region Climate Change Assessment (NOSCCA) - an analysis of the scientific legitimate knowledge for science and decision making.

**Markus Quante**, Franciscus Colijn

Helmholtz-Zentrum Geesthacht, Geesthacht, Germany (markus.quante@hzg.de)

##### LB30: EMS2014-126

Inter-seasonal and inter-variable dependencies in multi-model projections: lessons learnt from the CH2011 climate change scenarios

**Andreas Fischer**, Elias Zubler, Mark Liniger, Christof Appenzeller

Federal Office of Meteorology and Climatology MeteoSwiss, Climate Services, Zurich, Switzerland (andreas.fischer@meteoswiss.ch)

##### LB31: EMS2014-427

Impact data in weather & climate services

**Pauli Jokinen**, Hilppa Gregow

Finnish Meteorological Institute/Climate Service Centre, Finland (pauli.jokinen@fmi.fi)

#### END OF POSTER PROGRAMME SE1/CE6

### SE5 GFCS: services developed for (climate) vulnerable areas with a focus on non-European regions.

**Convener:** Filipe Lúcio

**Co-Conveners:** Aryan F.V. van Engelen

**Poster Area:** Meridian Left Back

**Chairperson(s):** Filipe Lucio and Aryan F.V. van Engelen

**Attendance Time:** 10:30–11:30

##### LB13: EMS2014-515

Climate Influences on Infectious Diseases in Nigeria, West Africa

**Auwail Abdussalam**, John Thornes, **Gregor**

**Leckebusch**

University of Birmingham, Geography, Earth and Environmental Science, Birmingham, United Kingdom (afa086@bham.ac.uk)

**LB14: EMS2014-278**

Climatic conditions of automobile transport operation in Moscow region

**Alexandra Shiryayeva**

Institute of Geography, Russian Academy of Science, Climatology, Russian Federation  
(alexandra.v.shiryayeva@gmail.com)

**END OF POSTER PROGRAMME SE5**

## Communication and Education

### CE2 Adaptation to climate change

**Convener:** André Jol

**Co-Convener:** Tanja Cegnar

**Poster Area:** Meridian Right Front

**Chairperson(s):** A. Jol

**Attendance Time:** 10:30–11:30

**RF1: EMS2014-355**

Spatially-resolved scenarios of photovoltaic and wind power targets for accurate estimates of production

**Sonia Jerez**, Françoise Thais, Isabelle Tobin, Martin Wild, Augustin Colette, Pascal Yiou, Robert Vautard  
Laboratoire des Sciences du Climat et de l'Environnement (LSCE), IPSL, CEA/CNRS/UVSQ, 91191 Gif sur Yvette, France, Department of Physics, University of Murcia, 30100 Murcia, Spain

**END OF POSTER PROGRAMME CE2**

## Numerical Weather Prediction

### NWP1 Dynamics and predictability of high impact weather in operational forecasting, including nowcasting

**Convener:** Tim Hewson

**Co-Convener:** Suzanne Gray

**Poster Area:** Meridian Left Back

**Chairperson(s):** Tim Hewson

**Attendance Time:** 10:30–11:30

**LB15: EMS2014-242**

Quantitative expression of uncertainty in nowcasting heavy convective precipitation in Central Europe by extrapolation methods

**Jan Mejstřík**, Zbynek Sokol, Petr Pesice  
Charles University, Faculty of Mathematics and Physics, Department of Meteorology and environmental protection, Prague, Czech Republic  
(jungleduch@centrum.cz), Institute of atmospheric physics ASCR, Prague, Czech Republic

**LB16: EMS2014-599**

Lightning climatology over Greece

Elissavet Galanaki, Konstantinos Lagouvardos,

**Vassiliki Kotroni**

National Observatory of Athens, Institute of Environmental Research and Sustainable Development, Athens, Greece (kotroni@noa.gr)

**LB17: EMS2014-105**

Is the land surface - atmosphere feedback as important for predictability of convective systems in the Sahel region as the dynamical forcing?

**Vera Maurer**, Leonhard Gantner, Norbert Kalthoff  
Institut für Meteorologie und Klimaforschung (IMK-TRO, KIT), Karlsruhe, Germany (vera.maurer@kit.edu)

**LB18: EMS2014-525**

Physical-statistical analyses and prognostic methodologies of foggy conditions at the Absheron peninsula

**Nazim Huseynov**, Hajar Mammadova, Bahruz Malikov  
Azerbaijan National Academy of Aviation

**END OF POSTER PROGRAMME NWP1**

### NWP5/ASI14 Mountain Meteorology (co-organized)

**Convener:** Michael Sprenger

**Co-Conveners:** Jürg Schmidli; Radmila Brožková

**Poster Area:** Meridian Left Front

**Chairperson(s):** Michael Sprenger

**Attendance Time:** 16:00–17:00

**LF28: EMS2014-240**

Dynamical statistical forecast of Alpine snow amounts for the safety of people, infrastructure and transport

**Reto Stauffer**, Jakob Messner, Achim Zeileis, Georg J. Mayr

University of Innsbruck, Institute of Meteorology and Geophysics, Innsbruck, Austria  
(reto.stauffer@uibk.ac.at)

**LF29: EMS2014-19**

Evaluation of the ability of progressively finer MNWP models to reproduce wind regimes in complex terrain

**Mario Hrstinski**, Kristijan Horvath, Iris Odak, Stjepan Ivatek Šahdan, Alica Bajić  
Meteorological and Hydrological Service, Zagreb, Croatia

**LF30: EMS2014-161**

Lagrangian analysis of foehn air warming in a dry and a moist event over the Swiss Alps

**Michael Sprenger**, Annette Miltenberger, Silvia Reynolds

ETH Zurich, Atmospheric Science, Zurich, Switzerland  
(michael.sprenger@env.ethz.ch)

**LF31: EMS2014-327**

Variations of flow characteristics upstream and downstream of Arizona's Meteor Crater basin during downslope-windstorm-type flows

**Bianca Adler**, Norbert Kalthoff, C. David Whiteman, Sebastian W. Hoch, Manuela Lehner  
Institut für Meteorologie und Klimaforschung (IMK-TRO), KIT, Karlsruhe, Germany

## The Atmospheric System and its Interactions

### ASI4 Coastal meteorology and oceanography

**Convener:** Mario Marcello Miglietta

**Co-Conveners:** Silvio Gualdi; Anna Maria Sempreviva; Manel Grifoll

**Poster Area:** Meridian Right Front

**Chairperson(s):** M. M. Miglietta

**Attendance Time:** 10:30–11:30

#### RF2: EMS2014-17

Real time weather forecasting in southern Italy: a detailed verification

**Luca Tiriolo**, Rosa Claudia Torcasio, Stefania Montesanti, Anna Maria Sempreviva, Claudia Roberta Calidonna, Stefano Federico

Institute of Atmospheric Sciences and Climate of the Italian National Council of Research, ISAC-CNR, UOS of Lamezia Terme, zona Industriale Comparto 15, 88046 Lamezia Terme, Italy (l.tiriolo@isac.cnr.it, rc.torcasio@isac.cnr.it, s.montesanti@isac.cnr.it)

#### RF3: EMS2014-57

Large-Eddy Simulation of sea-breeze in an idealised peninsular site

Umberto Rizza, **Mario Marcello Miglietta**

ISAC-CNR, Lecce, Italy (m.miglietta@isac.cnr.it)

#### RF4: EMS2014-95

An operational system for the storm surge forecast in the Adriatic Sea (Italy): results and evaluations

**Elisa Coraci**, Marco Bajo, Marco Casaioli, Maurizio Ferla, Stefano Mariani, Georg Umgieser

Institute for Environmental Protection and Research (ISPRA), Rome, Italy

#### RF5: EMS2014-110

Spatial wind heterogeneity in coastal areas and its effects on water circulation (The Alfacs Bay case, Ebre Delta)

**Pablo Cerralbo**, Manel Grifoll, Manuel Espino  
Maritime Engineering Laboratory (LIM), Universitat Politècnica de Catalunya, Barcelona, Spain  
(pablo.cerralbo@upc.edu)

#### RF6: EMS2014-254

Climate evaluation of storminess at the German Bight and the southwestern coast of the Baltic Sea

**Dörte Röhrbein**, Birger Tinz, Hans von Storch, Lydia Gates

German Meteorological Service, Deutscher Wetterdienst, Hamburg, Germany  
(doerte.roehrbein@dwd.de)

#### RF7: EMS2014-296

Coupling of COSMO/CLM and NEMO with focus on North and Baltic seas

Jennifer Brauch, **Barbara Früh**, Trang Van Pham, Bodo Ahrens  
Deutscher Wetterdienst, Klima und Umweltberatung, Offenbach, Germany (barbara.fruh@dwd.de)

#### RF8: EMS2014-354

Evaluation of ocean forecast system based on the Regional Ocean Modeling System (ROMS) in Korea Meteorological Administration

**JaeYoung Byon**, Hyeongjun Jo, Pil-Hun Chang, Jihye Kim

Republic of Korea (byonjy@kma.go.kr)

#### RF9: EMS2014-368

The Spatial Characteristics Classification of Ocean Weather around the Korean Peninsula using Cluster Analysis

**Goeun Son**, Pil-Hun Chang, Jae-Young Byon

Global Environment System Research Division, National Institute of Meteorological Research, Republic of Korea (geson@korea.kr)

#### RF10: EMS2014-428

Analysis of 2014 winter patterns and its effects in Basque Country Coastal Area

**Joseba Egaña**, Santiago Gaztelumendi, Roberto Hernandez

TECNALIA - Meteo Area, Basque Meteorology Agency (EUSKALMET)

#### RF11: EMS2014-450

Analysis of coastal-maritime adverse events in Basque Country

**Santiago Gaztelumendi**, Joseba Egaña, Ivan R. Gelpi, Sheila Carreño, Manuel Gonzalez, Pedro Liria, Ganix Esnaola, Jose Antonio Aranda

Basque Meteorology Agency (EUSKALMET), TECNALIA - Meteorology Area

#### RF12: EMS2014-612

Comparative analysis of wind climate and breeze circulation at Ahtopol (Bulgarian Black sea coast) and at Lamezia Terme (Calabria, Italy)

**Luca Tiriolo**, Damyan Barantiev, Claudia Calidonna, Daniel Gulli, Anna Maria Sempreviva, **Ekaterina Batchvarova**

National Institute of Meteorology and Hydrology, Bulgarian Academy of Sciences, Bulgaria, Wind Energy Department, Technical University of Denmark, Roskilde, Denmark.

#### RF13: EMS2014-655

Recent Trends of the North Atlantic Wave Heights from the ERA-Interim Reanalysis

**Alvaro Semedo**, Mariana Bernardino, Hector Cabrera Bermejo, Paulo Martinho, Nadia Salvação  
Escola Naval-CINAV, Base Naval de Lisboa, Alfeite, 2810-001 Almada, Portugal, milho.semedo@marinha.pt, Department of Earth Sciences, Uppsala University, Uppsala, Sweden

#### RF14: EMS2014-656

Wind sea and swell waves in the Baltic Sea

**Alvaro Semedo**, Roberto Vettor, Øyvind Breivik, Andreas Sterl, Magnar Reistad, Hector Cabrera Bermejo, Paulo Martinho, Mariana Bernardino, Nadia Salvação

Escola Naval-CINAV, Base Naval de Lisboa, Alfeite, 2810-001 Almada, Portugal, milho.semedo@marinha.pt, Royal Netherlands Meteorological Institute (KNMI), De Bilt, Netherlands

#### END OF POSTER PROGRAMME ASI4

## ASI7 Atmospheric hazards

**Convener:** Fulvio Stel  
**Co-Convener:** Dario Giaiotti  
**Poster Area:** Meridian Right Front  
**Chairperson(s):** Fulvio Stel  
**Attendance Time: 16:00–17:00**

### RF7: EMS2014-390

The Spatiotemporal Variability and the Causes in Atmospheric Circulation of the Latest Frost Occurrences in Republic of Korea  
**Jin-Ah Kim**, Hi-Ryong Byun, Kyu-Rang Kim, Nam-Hee Kim, Chang-Bum Cho, Byoung-Choel Choi  
 National Institute of Meteorological Research, Seogwipo-si, Jeju-do, Republic of Korea

### RF8: EMS2014-554

The seasonality of flood and meteorological anomalies, case study of the upper Elbe basin  
**Jana Smidova**, Miloslav Müller  
 Charles University in Prague, Faculty of Science, Czech Republic

### RF9: EMS2014-537

Using data mining methods in forecasting waterspouts over south Aegean Sea, Greece  
 Nikolaos C. Kamperakis, **Panagiotis T. Nastos**, Ioannis T. Matsangouras  
 Laboratory of Climatology & Atmospheric Environment, Faculty of Geology & Geoenvironment, University of Athens, University Campus, Greece  
 (n.kamperakis@gmail.com)

### RF10: EMS2014-36

Waterspout cloud top detection using MSG SEVIRI Infrared brightness temperature over north Ionian Sea  
**Kyriakoula Papachristopoulou**, Ioannis T. Matsangouras, Panagiotis T. Nastos  
 Department of Environmental Physics and Meteorology, Faculty of Physics, National and Kapodestria University of Athens, Panepistimiopolis GR-15784 Athens, Greece  
 (kpapachr@phys.uoa.gr), Laboratory of Climatology and Atmospheric Environment, Faculty of Geology and Geoenvironment, National and Kapodestrian University of Athens, Panepistimiopolis GR-15784 Athens, Greece

### RF11: EMS2014-283

Classification of stratiform and convective precipitation over Athens area, Greece  
 Elissavet Feloni, **Panagiotis Nastos**, Evangelos Baltas, Ioannis Matsangouras  
 Laboratory of Climatology and Atmospheric Environment, Faculty of Geology and Geoenvironment, University of Athens, University Campus 157 84, Athens, Greece

**END OF POSTER PROGRAMME ASI7**

## ASI13 Energy Meteorology

**Convener:** Sven-Erik Gryning  
**Co-Conveners:** Ekaterina Batchvarova; Marion Schroedter-Homscheidt; Lucien Wald  
**Poster Area:** Meridian Right Back  
**Chairperson(s):** Marion Schroedter-Homscheidt  
**Attendance Time: 10:30–11:30**

### RB20: EMS2014-402

Evaluating and improving probabilistic wind forecasts of the high-resolution ensemble system COSMO-DE-EPS  
**Tobias Heppelmann**, Zied Ben Bouallegue, Susanne Theis  
 Deutscher Wetterdienst, Offenbach, Germany  
 (tobias.heppelmann@dwd.de)

### RB21: EMS2014-539

Resolution Evaluation of the WRF Model with WASP comparisons for the Short Term Wind Energy Prediction System of Turkey  
**Nur Goktepe**, Erkan Yilmaz, Fahri Mert Sayinta, Emel Unal, Elcin Tan, Yurdanur Sezginer Unal, Sukran Sibel Montes, Selahattin Incecik  
 Department of Meteorological Engineering, Istanbul Technical University, Istanbul, Turkey  
 (goktepenur@gmail.com)

### RB22: EMS2014-538

Resolution Evaluation of the WRF Model with WindSim comparisons for the Short Term Wind Energy Prediction System of Turkey  
**Erkan Yilmaz**, Nur Goktepe, Fahri Mert Sayinta, Emel Unal, Elcin Tan, Yurdanur Sezginer Unal, Sukran Sibel Montes, Selahattin Incecik  
 Department of Meteorological Engineering, Istanbul Technical University, Istanbul, Turkey  
 (erkany12@gmail.com)

### RB23: EMS2014-124

How do uncertainties of numerical weather forecasts propagate into power predictions for offshore wind farms?  
 Sonja Drüke, Nick Janssen, **Gerald Steinfeld**  
 Carl-von-Ossietzky-Universität Oldenburg, ForWind - Zentrum für Windenergieforschung, Energy Meteorology, Oldenburg, Germany  
 (gerald.steinfeld@forwind.de)

### RB24: EMS2014-303

An assessment of onshore wind energy potential in Iberia under climate change  
 Carlos Rochinha, **João A. Santos**, Margarida L. R. Liberato, Joaquim G. Pinto  
 Centre for the Research and Technology of Agro-Environmental and Biological Sciences, Universidade de Trás-os-Montes e Alto Douro, UTAD, 5000-801 Vila Real, Portugal, jsantos@utad.pt

**RB25: EMS2014-395**

A Comparative Study of the WRF and Observation on Ramp event in South-western Coastal Region over the Korean Peninsula

**Beom-Keun Seo**, Yoon-Jin Lim, Sin-Young Park, Nam-Hee Kim, Byung-Cheol Choi  
National Institute of Meteorological Research, Applied Meteorological Research Division, Seogwipo-si, Jeju-do, Republic of Korea (sbkblue@gmail.com)

**RB26: EMS2014-187**

Finnish Icing Atlas - sensitivity of weather model parameters on icing

**Karoliina Hämäläinen**  
Finnish meteorological institute, Helsinki, Finland  
(karoliina.hamalainen@fmi.fi)

**RB27: EMS2014-452**

Modelling sound propagation from wind turbines using a ray-tracing model coupled to a mesoscale model

**Matthias Mohr**, Olof Öhlund, Conny Larsson, Hans Bergström  
Uppsala University, Air, Water & Landscape Science, Dept. of Earth Sciences, Uppsala, Sweden  
(matthias.mohr@geo.uu.se)

**END OF POSTER PROGRAMME ASI13**



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Thursday, 09 October 2014						
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius
08:30–10:30	<b>UC4/SE3:</b> Global and regional reanalyses	<b>MC2:</b> Spatial Climatology	<b>ASI3:</b> Formulation, validation and parameterisation of small-scale processes	<b>ASI10/MC5:</b> Urban Climate	<b>ASI12/MC4:</b> Phenology and agrometeorology	<b>SIM7:</b> RCC Network (RA VI) Workshop
10:30–11:30	<b>Poster Session &amp; Coffee Break   Foyer and Room Meridian</b>  <i>Poster authors in attendance time for the following sessions:</i> ECAC programme group: <b>MC1</b> (LF1 - LF15), <b>MC2</b> (LF16 - LF27), <b>UC4/SE3</b> (LB19 - LB28) CE programme group: <b>CE3</b> (RF1 + RF2) ASI programme group: <b>ASI12/MC4</b> (RF24 - RF27), <b>ASI10/MC5</b> (RF15 - RF23), <b>ASI1</b> (RF3 - RF6), <b>ASI8</b> (RF12 - RF14)					
11:30–13:00	<b>UC4/SE3</b>	<b>MC2</b>	<b>ASI3</b>	<b>ASI10/MC5</b>	<b>ASI9:</b> Interfacing hydrological and meteorological models	<b>SIM7</b>
13:00	Lunch Break					
14:00–16:00	<b>UC3:</b> Climate forecast verification	<b>MC1:</b> Climate monitoring; data rescue, management, quality & homogenisation	<b>ASI8:</b> Boundary-layer physics and parameterisations in weather and climate model	<b>CE5:</b> How I became a scientist	<b>ASI1:</b> Dynamical meteorology including <b>Young Scientist Award Lecture</b>	<b>SIM12:</b> JPI climate meeting on user-provider interaction (public)
16:00	Coffee Break					
16:30–18:30	<b>UC2:</b> Climate prediction and scenarios on decadal to centennial timescales	<b>MC1</b>	<b>ASI6:</b> Atmospheric measurements: Concepts, new technologies and scientific progress	<b>CE3:</b> Communication of uncertainty in seasonal prediction and climate projection	<b>ASI5/CE7:</b> Biometeorology	
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius
<b>20:00 Conference Dinner (19:00 Departure at Clarion Congress Hotel)</b> <b>Velká Klášterní Restaurace (Strahovské nádvoří 302, 118 00 Praha 1, <a href="http://www.klasternirestaurace.cz/en">www.klasternirestaurace.cz/en</a>)</b> <b>by registration only</b>						

In the detailed daily programme (on pages 63 to 78) the related ECAC, ASI, CE and NWP sessions are listed in the following order: MC1, MC2, UC2, UC3, UC4/SE3, CE3, CE5, ASI1, ASI3, ASI5/CE7, ASI6, ASI8, ASI9, ASI10/MC5, ASI12/MC4.

## European Conference on Applied Climatology (ECAC)

### Monitoring climate and climate change

#### MC1 Climate monitoring; data rescue, management, quality and homogenization

**Convener:** Manola Brunet-India

**Co-Conveners:** Ingeborg Auer; Victor Venema; Dan Hollis; Hermann Mächel

**Lecture Room:** Nadir

**14:00–16:00**

**Chairperson(s):** Inge Auer and Victor Venema

#### Time-series Quality Control and Homogenisation

**14:00–14:15: EMS2014-195**

The International Surface Temperature Initiative: an overview

**Peter Thorne**

NERSC, Norway (peter.thorne@nersc.no)

**14:15–14:30: EMS2014-15**

A New Homogenized Climate Database for the Pyrenees (1950-2012)

**Marc J. Prohom**, Jordi Cunillera, Roberto Serrano-Notivoli, José María Cuadrat, Ernesto Tejedor-Vargas, Miguel Ángel Saz-Sánchez, Pere Esteban, Jean-Michel Soubeyroux, Nathalie Deaux  
Meteorological Service of Catalonia, Area of Climatology, Barcelona, Catalonia, Spain  
(mprohom@meteo.cat)

**14:30–14:45: EMS2014-23**

The contribution of the homogenization in the extreme precipitation events

**Fiorella Acquaotta**, Simona Fratianni, Victor Venema  
University of Turin, Earth Science, Turin, Italy  
(fiorella.acquaotta@unito.it)

**14:45–15:00: EMS2014-93**

Reliability of homogenisation corrections in Slovenian climate time series in period 1961-2011

**Gregor Vertačnik**

Slovenian Environment Agency, Slovenia  
(gregor.vertacnik@gov.si)

**15:00–15:15: EMS2014-266**

Local and microclimatic variations around long term meteorological stations in small urban areas

**Jenny Lindén**, Sue Grimmond

Department of Geography, Johannes-Gutenberg University, Mainz, Germany

**15:15–15:30: EMS2014-285**

Homogenization, trends and urban effects on the Spanish temperature series

**José A. Guijarro**

AEMET (State Meteorological Agency), Balearic Islands Office, Palma de Mallorca, Spain  
(jguijarro@aemet.es)

**15:30–15:45: EMS2014-550**

Homogenization in Norway

**Elin Lundstad**, Herdis Motrøen Gjeltén

Norwegian Meteorological Institute, Meteorology and Climate Department, Oslo, Norway (elinl@met.no)

**15:45–16:00: EMS2014-356**

NORDHOM - Nordic collaboration on establishing long-term homogeneous climate data records

**Erik Engström**, Thomas Carlund, Achim Drebs, Juha Aalto, Mikko Laapas, Elin Lundstad, Herdis Motrøen Gjeltén, Kairi Vint

Swedish Meteorological and Hydrological Institute, (erik.engstrom@smhi.se)

**16:00 Coffee Break**

**16:30–18:30**

**Chairperson(s):** Dan Hollis and Manola Brunet

**16:30–16:45: EMS2014-345**

Homogenization of Swedish precipitation and temperature data

**Erik Engström**, Thomas Carlund

Swedish Meteorological and Hydrological Institute, Climate Communication, Norrköping, Sweden  
(erik.engstrom@smhi.se)

**16:45–17:00: EMS2014-418**

The joint influence of break and noise variance on the break detection capability in time series homogenization

**Ralf Lindau**, Victor Venema

University of Bonn, Meteorological institute, Bonn, Germany (victor.venema@uni-bonn.de)

**17:00–17:15: EMS2014-458**

Homogenization of wind speed and direction series together

**Tamás Szentimrey**, Mónika Lakatos, Zita Bihari, Sándor Szalai

Hungarian Meteorological Service, Budapest, Hungary  
(szentimrey.t@met.hu)

#### Climate Monitoring

**17:15–17:30: EMS2014-179**

Temporal Trends in Sunshine Duration over Italy (1936-2013)

**Veronica Manara**, Maria Carmen Beltrano, Michele Brunetti, Maurizio Maugeri, Claudia Simolo, Simona Sorrenti

Università degli Studi di Milano, Italy  
(veronica.manara@unimi.it)

**17:30–17:45: EMS2014-276**

Climate Analysis Tools - An operational environment for climate products  
 Rebecca Hiller, **Rebekka Posselt**, Beat Gätzi, Sophie Fukutome, Mark A. Liniger  
 Federal Office of Meteorology and Climate, Switzerland  
 (rebecca.hiller@meteoswiss.ch)

**17:45–18:00: EMS2014-393**

New global short-wave radiation climatology from VOS based on highly accurate parameterization: interannual variability and the impact of cloud cover  
**Marina Aleksandrova**, Alexey Sinitsyn, Sergey Gulev  
 P.P. Shirshov Institute of Oceanology, RAS, SAIL,  
 Moscow, Russian Federation (sinitsyn@sail.msk.ru)

**18:00–18:15: EMS2014-463**

Study of integrated water vapour trends and variability using ground-based GPS data and climate models  
**Olivier Bock**, Samuel Nahmani, Sophie Bastin,  
 Frederic Hourdin  
 IGN, LAREG, Univ Paris Diderot, Sorbonne Paris Cité,  
 Paris, France (olivier.bock@ign.fr)

**18:15–18:30: EMS2014-523**

Climate Watch in RA VI - a joint Climate Service of the Regional Climate Centre Network (RCC)  
**Stefan Rösner**, Hermann Mächel, Peter Bissolli,  
 Karsten Friedrich, Helga Nitsche, Milan Dacic, Goran Pejvanovic, Katarina Stefanovic, Jean-Pierre Ceron,  
 Dmitry Kiktev, Mónika Lakatos, Tamás Kovács, Hans Olav Hygen  
 Deutscher Wetterdienst, Offenbach, Germany  
 (rcc.cm@dwd.de)

**END OF ORAL PROGRAMME MC1****MC2 Spatial Climatology**

**Convener:** Ole Einar Tveito

**Co-Conveners:** Mojca Dolinar; Christoph Frei

**Lecture Room:** Nadir

**08:30–10:30**

**Chairperson(s):** Ole Einar Tveito

**08:30–08:45: EMS2014-334**

A new homogenous radiation climate data record  
**Richard Müller**, Uwe Pfeifroth, Christine Träger-Chatterjee, Jörg Trentmann  
 Deutscher Wetterdienst, KU22, Satellite Application  
 Facility on Climate Monitoring, Offenbach, Germany  
 (richard.mueller@dwd.de)

**08:45–09:00: EMS2014-183**

Sicily monthly high resolution solar radiation climatologies and comparison with future projections  
**Veronica Manara**, Michele Brunetti, Maurizio Maugeri,  
 Luigi Pasotti, Claudia Simolo  
 Università degli Studi di Milano, Italy  
 (veronica.manara@unimi.it)

**09:00–09:15: EMS2014-290**

An algorithm for integrating satellite precipitation estimates with in situ precipitation data on a pentad time scale  
 Achan Lin, **Xiaolan L. Wang**  
 Climate Research Division, Science and Technology  
 Branch, Environment Canada, Toronto, Canada  
 (xiaolan.wang@ec.gc.ca)

**09:15–09:30: EMS2014-474**

Investigation of modelling results obtained by MISH interpolation method in the CARPATCLIM project  
**Zita Bihari**, Tamás Szentimrey, Mónika Lakatos,  
 Sándor Szalai  
 Hungarian Meteorological Service, Budapest, Hungary  
 (bihari.z@met.hu)

**09:30–10:00: EMS2014-527**

Spatial interpolation of hourly cumulated precipitation in Norway (solicited)  
**Cristian Lussana**, Ole Einar Tveito  
 Norwegian Meteorological Institute, Meteorology and  
 Climate Department - Division for Climate Services -  
 Section for Data and Spatial Analysis, Oslo, Norway  
 (cristianl@met.no)

**10:00–10:30: Introduction to the poster session****10:30 Coffee Break & Poster Sessions****11:30–13:00**

**Chairperson(s):** Christoph Frei

**11:30–12:00: EMS2014-479**

Daily temperature grids for Austria - concept, creation and application (solicited)  
**Johann Hiebl**  
 Central Institute for Meteorology and Geodynamics,  
 Austria (johann.hiebl@zamg.ac.at)

**12:00–12:15: EMS2014-364**

Variations of mesoscale precipitation in the Alps 1901-2008: Maintaining long-term consistency despite network variations  
**David Masson**, Christoph Frei  
 Federal Office of Meteorology and Climatology  
 MeteoSwiss, Zürich, Switzerland  
 (christoph.frei@meteoswiss.ch)

**12:15–12:30: EMS2014-1**

Quantifying topoclimatic driving forces of near surface temperature variations in heterogeneous environments  
**Lars Gerlitz**, Benjamin Bechtel, Langkamp Thomas,  
 Böhner Jürgen  
 Institute of Geography, University of Hamburg,  
 Germany (lars.gerlitz@uni-hamburg.de)

**12:30–12:45: EMS2014-535**

Developing climate indicators from gridded data.  
**Ole Einar Tveito**, Hans Olav Hygen  
 Norwegian Meteorological Institute, Climatology  
 Division, Oslo, Norway (ole.einar.tveito@met.no)

**12:45–13:00: Discussion**

What will be the role of observation gridding in the future? Challenges, development trends and user needs

**END OF ORAL PROGRAMME MC2**

## Understanding processes and climate change

### UC2 Climate prediction and scenarios on decadal to centennial timescales

**Convener:** Christof Appenzeller

**Co-Conveners:** Clare Goodess; Jean-Pierre Céron; Martin Widmann

**Lecture Room:** Zenit

**16:30–18:30**

#### 16:30–17:00: EMS2014-613

COST action VALUE: Validating and integrating downscaling methods for climate change research  
Douglas Maraun, **Martin Widmann**, Rasmus E. Benestad, Richard E. Chandler, Jose M. Gutierrez, Elke Hertig, Radan Huth, Sven Kotlarski, Joanna Wibig  
University of Birmingham, School of Geography, Earth and Environmental Sciences

#### 17:00–17:15: EMS2014-584

Comparison of stochastic MOS corrections for GCM and RCM simulated precipitation  
**Martin Widmann**, Jonathan Eden, Douglas Maraun, Mathieu Vrac  
University of Birmingham, School of Geography, Earth and Environmental Sciences, Birmingham, United Kingdom (m.widmann@bham.ac.uk)

#### 17:15–17:30: EMS2014-645

Downscaling for extreme and non-extreme daily precipitation using GCM model output statistics  
**Jonathan Eden**, Martin Widmann, Douglas Maraun, Mathieu Vrac  
School of Geography, Earth and Environmental Sciences, University of Birmingham, Birmingham, UK

#### 17:30–17:45: EMS2014-48

Change points in statistical downscaling relationships of the large-scale atmospheric circulation in the North Atlantic-European domain and precipitation in the Mediterranean area  
**Elke Hertig**, Jucundus Jacobeit  
University of Augsburg, Physical Geography, Augsburg, Germany (elke.hertig@geo.uni-augsburg.de)

#### 17:45–18:00: EMS2014-193

Robust climate scenarios for sites with sparse observations: A two-step empirical-statistical bias correction approach  
**Jan Rajczak**, Sven Kotlarski, Nadine Salzmann, Christoph Schär  
Institute for Atmospheric and Climate Science, ETH Zurich, Zurich, Switzerland

#### 18:00–18:15: EMS2014-181

Enhancing local climate projections for Switzerland: Possibilities and limitations of bias correction techniques  
**Martin Ivanov**, Sven Kotlarski, Christoph Schär  
ETH Zürich, Zürich, Switzerland

#### 18:15–18:30: EMS2014-175

Stochastic modelling of future daily weather consistent with RCM projections and the space-time covariance of present-day observations

**Denise E. Keller**, Andreas M. Fischer, Christoph Frei, Mark A. Liniger, Christof Appenzeller, Reto Knutti  
Federal Office of Meteorology and Climatology MeteoSwiss, Zurich, Switzerland  
(Denise.Keller@meteoswiss.ch), Center for Climate Systems Modeling (C2SM), ETH Zurich, Switzerland

### ORAL PROGRAMME UC2 continues on Friday

### UC3 Climate forecast verification

**Convener:** Pertti Nurmi

**Co-Conveners:** Caio Coelho

**Lecture Room:** Zenit

**14:00–16:00**

**Chairperson(s):** Pertti Nurmi

#### 14:00–14:15: EMS2014-486

Estimating seasonally varying thresholds for seasonal predictions of climate indices  
Irina Mahlstein, **Mark Liniger**  
Federal Office of Meteorology and Climatology MeteoSwiss, Climate Division, Zuerich, Switzerland  
(mark.liniger@meteoswiss.ch)

#### 14:15–14:30: EMS2014-608

Advanced Climate and Regional Model Validation for Societal Applications  
Barbara Brown, **Eric Gilleland**, Tressa Fowler, Caspar Ammann, Lawrence Buja, William Gutowski, Laura Kaatz, Abayomi Abatan, John Halley Gotway  
NCAR, RAL, Boulder, United States (bgb@ucar.edu)

#### 14:30–14:45: EMS2014-288

Verification of long range weather forecasts in Croatia  
**Lovro Kalin**, Zoran Vakula  
Meteorological and Hydrological Service of Croatia, DHMZ, Zagreb, Croatia (kalin@cirus.dhz.hr)

#### 14:45–15:00: EMS2014-226

The verification of seasonal precipitation forecasts for early warning in Zambia and Malawi  
**Otto Hyvärinen**, Ari Venäläinen, Karoliina Pilli-Sihvola, Hilppa Gregow  
Finnish Meteorological Institute, Climate Service Centre, Helsinki, Finland (otto.hyvarinen@fmi.fi)

#### 15:00–15:15: EMS2014-606

Verification of seasonal-to-decadal ensemble forecasts  
**Stefan Siebert**  
United Kingdom (s.siebert@exeter.ac.uk)

#### 15:15–15:30: EMS2014-210

Does a climate model represent the climate? Attempts at a quantification using verification measures  
**Arne Spekat**, Wolfgang Enke  
Climate and Environment Consulting Potsdam GmbH, Potsdam, Germany (arne.spekat@cec-potsdam.de)

**15:30–15:45: EMS2014-159**

Probabilistic evaluation of the MiKlip decadal prediction system

**Sophie Stolzenberger**, Rita Glowienka-Hense, Thomas Spangehl, Marc Schröder, Andreas Hense  
University of Bonn, Bonn, Germany

**15:45–16:00: EMS2014-182**

The representation of the 1990s warming of the North Atlantic subpolar gyre in the MiKlip decadal prediction system

**Ines Höschel**, Ulrich Cubasch  
FU Berlin, Institute for Meteorology, Berlin, Germany  
(ines.hoeschel@met.fu-berlin.de)

**END OF ORAL PROGRAMME UC3**

## UC4/SE3 Global and regional reanalyses (co-organized)

**Convener:** A. K. Kaiser-Weiss

**Co-Conveners:** Leopold Haimberger; Ge Verver; Dick Dee; Eric Bazile

**Lecture Room:** Zenit

**08:30–10:30**

**Chairperson(s):** Andrea Kaiser-Weiss

**08:30–09:00: EMS2014-134**

Low frequency variability in the family of ERA-20C reanalyses (solicited)

**Paul Berrisford**, Dick Dee, Paul Poli, Hans Hersbach, Carole Peubey, Takuya Komori, David Tan, Patrick Laloyaux, Rossana Dragani, Shoji Hirahara, Adrian Simmons  
ECMWF, Research Department, Reading, United Kingdom (p.berrisford@ecmwf.int)

**09:00–09:15: EMS2014-447**

Reprocessed Meteosat Second Generation Geophysical Products for Reanalysis

**Marie Doutriaux-Boucher**, Joerg Schulz, Alessio Lattanzio, Rob Roebeling  
EUMETSAT, Darmstadt, Germany  
(Joerg.Schulz@eumetsat.int)

**09:15–09:30: EMS2014-100**

European regional reanalyses efforts in the UERRA project and uncertainty estimates

**Per Unden**, Manola Brunet, Dale Barker, Andrea Kaiser-Weiss, Albert Klein Tank, Phil Jones  
Swedish Meteorological and Hydrological Institute, Norrköping, Sweden

**09:30–09:45: EMS2014-456**

Estimation of uncertainties in an European high-resolution surface re-analysis under UERRA project

**Cornel Soci**, Eric Bazile  
Météo-France, CNRM/GMAP, Toulouse, France  
(cornel.soci@meteo.fr)

**09:45–10:00: EMS2014-264**

Diurnal temperature cycle deduced from extreme daily temperatures and impact over a surface reanalysis system

**François Besson**, Jean-Michel Soubeyrou, Eric Bazile, Cornel Soci, Maxime Perrin  
Météo-France, DCLim/AVH, Toulouse, France

**10:00–10:15: EMS2014-204**

Extension of a fine mesh reanalysis over France on the entire XXIth century: Feasibility and prospects

**Jean-Pierre Céron**, Marie Minvielle, François Besson, Christian Pagé  
Météo-France, Direction de la Climatologie, Toulouse France, (jean-pierre.ceron@meteo.fr)

**10:15–10:30: Discussion:**

On temporal scales of variability in the reanalyses

**10:30 Coffee Break & Poster Sessions****11:30–13:00**

**Chairperson(s):** Leopold Haimberger

**11:30–11:45: EMS2014-339**

A High-resolution Reanalysis for the European CORDEX Region

**Christoph Bollmeyer**, Jan Keller, Christian Ohlwein, Sabrina Bentzien, Petra Friederichs, Andreas Hense  
Hans-Ertel Centre for Weather Research - Climate Monitoring Branch, University Bonn, Meteorological Institute, Bonn, Germany

**11:45–12:00: EMS2014-344**

The effect of horizontal resolution and the assimilation of radar-derived rain rates in a regional reanalysis

**Sabrina Bentzien**, Christoph Bollmeyer, Christopher Danek, Petra Friederichs, Andreas Hense, Jan Keller, Christian Ohlwein  
University of Bonn, Meteorological Institute, Bonn, Germany, Hans-Ertel Centre for Weather Research - Climate Monitoring Branch

**12:00–12:15: EMS2014-590**

A high resolution climate data set for Europe through dynamical downscaling with frequent reinitializations

**Thomas Remke**, Claas Teichmann, Daniela Jacob  
Climate Service Center (CSC), Helmholtz-Zentrum Geesthacht, Germany

**12:15–12:45: EMS2014-422**

Modelling of long term wind resource assessment uncertainty using tall mast datasets (solicited)

**Elvin Lemmens**, Rory Donnelly, Grégoire Leroy  
E, iLab, Brussel, Belgium (rory.donnelly@3e.eu)

**12:45–13:00: Discussion:**

On the added value of regional reanalysis and downscaling methods

**END OF ORAL PROGRAMME UC4/SE3**

## Communication and Education

### CE3 Communication of uncertainty in seasonal prediction and climate projection

**Convener:** Haleh Kootval

**Co-Conveners:** Alberto Arribas; Anca Brookshaw; Tanja Cegnar

**Lecture Room:** Tycho

**16:30–18:30**

**Chairperson(s):** A. Brookshaw

**16:30–16:45: EMS2014-647**

The challenge for broadcasters in communicating climate change uncertainty

**Jay Trobec**

KELO-TV, Sioux Falls, South Dakota, USA

**16:45–17:00: EMS2014-209**

A communication issue: Extremes of meteorological parameters and their development in a changed climate

**Arne Spekat**, Wolfgang Enke

Climate and Environment Consulting Potsdam GmbH, Potsdam, Germany (arne.spekat@cec-potsdam.de)

**17:00–17:15: EMS2014-481**

Monthly forecast products based on daily data

Christoph Spirig, **Mark Liniger**

Federal Office of Meteorology and Climatology MeteoSwiss, Climate Division, Zuerich, Switzerland (mark.liniger@meteoswiss.ch)

**17:15–17:30: EMS2014-640**

Regional climate outlooks in the U.S.: Explaining and exploiting ENSO-related forecast skill on seasonal to annual time scales

**Klaus Wolter**

University of Colorado-Boulder

**17:30–17:45: EMS2014-185**

Communicating uncertainty in seasonal climate predictions: End-user perceptions and preferences

**Andrea Taylor**, Suraje Dessai

University of Leeds, Sustainability Research Institute, School for Earth and Environment, United Kingdom (a.i.taylor@leeds.ac.uk)

**17:45–18:00: EMS2014-506**

Visualising uncertainty across three generations of the MiKlip decadal prediction system

**Freja Vamborg**, Kameswarrao Modali, Wolfgang A.

Müller, Holger Pohlmann, Jochem Marotzke  
Max Planck Institute for Meteorology, Hamburg, Germany (freja.vamborg@mpimet.mpg.de)

**18:00–18:10: Poster overview**

**18:10–18:30: Discussion and wrap-up of the session**

**END OF ORAL PROGRAMME CE3**

### CE5 How I became a scientist - reporting on the right steps in the right direction and possible stumbling blocks to overcome

**Convener:** Renate Hagedorn

**Co-Conveners:** Heike Hübener; Martina Junge

**Lecture Room:** Tycho

**14:00–15:50**

**Chairperson(s):** Renate Hagedorn

**14:00–14:10: Introduction: The objectives of this session**

**14:10–14:20: EMS2014-65**

Science in the (energy) private sector: is it possible?

**Laurent Dubus**

EDF R&D, Applied Meteorology and Atmospheric Environment, CHATOU CEDEX, France (laurent.dubus@edf.fr)

**14:20–14:30:**

Between Science & Society or, Am I a Scientist?

**Catherine Vaughan**

IRI New York

**14:30–14:40: EMS2014-670**

No science, please... real life problems, please...

**Marion Schroedter-Homscheidt**

DLR, Germany

**14:40–14:50: EMS2014-649**

A career path with diversions

**Barbara Früh**

DWD, Germany

**14:50–15:00: EMS2014-650**

Advice to a student who wants to make a career in the mathematical sciences

**Anders Persson**

Swedish Meteorological Society, Sweden

**15:00–15:10: EMS2014-664**

Three decades in the climate woods

**Clare Goodess**

University of East Anglia, Climatic Research Unit, United Kingdom (C.Goodess@uea.ac.uk)

**15:10–15:30: Discussion**

**END OF ORAL PROGRAMME CE5**

## The Atmospheric System and its Interactions

### ASI1 Dynamical meteorology

**Convener:** Thomas Frisius

**Co-Conveners:** Alessandro Dell'Aquila; Frank Lunkeit

**Lecture Room:** Taurus

**14:00–15:55**

**Chairperson(s):** Alessandro Dell'Aquila

**14:00–14:30: EMS2014-667**

**Young Scientist Award Lecture:**

Using convection-permitting models to better understand tropical convection (solicited)

**Cathryn Birch**

Institute for Climate and Atmospheric Science, School of Earth and Environment, University of Leeds, UK  
(C.E.Birch@leeds.ac.uk)

**14:30–14:45: EMS2014-318**

Role of medium-scale waves on the Annular Modes

**Yuhji Kuroda**, Hitoshi Mukougawa

Meteorological Research Institute, Climate Research Department, Tsukuba, Japan (kuroda@mri-jma.go.jp)

**14:45–15:00: EMS2014-82**

Predictability of Stratosphere-Troposphere Dynamical Coupling Examined by Ensemble Forecast Datasets

**Hitoshi Mukougawa**, Toshihiko Hirooka, Kunihiro Koda, Yuhji Kuroda, Shunsuke Noguchi

Kyoto University, Disaster Prevention Research Institute, Uji, Japan (mukou@dpac.dpri.kyoto-u.ac.jp)

**15:00–15:15: EMS2014-570**

Impact of Reanalysis Forcing Data on Extra-Tropical Cyclones Simulations

**Juan Ferreira**, Prabodha Pradhan, Margarida L. R. Liberato

Escola de Ciências e Tecnologia, Universidade de Trás-os-Montes e Alto Douro (UTAD), Vila Real, Portugal

**15:15–15:30: EMS2014-46**

Rapid Arctic change in recent decades and its influence on the climate change over Eurasia

**Seong-Joong Kim**, Baek-Min Kim, Taehyoun Shim

Division of Polar Climate Change Research, Korea Polar Research Institute, Incheon, Republic of Korea  
(seongjkim@kopri.re.kr)

**15:30–15:45: EMS2014-77**

Can ENSO affect Tibetan Plateau thermal effect from winter through summer?

**Yafei Wang**, Xiaoyu Xu

Chinese Academy of Meteorological Sciences, Beijing, China (yfwang@cams.cma.gov.cn)

**15:45–15:55: Poster introductions (2 minutes per poster)**

**END OF ORAL PROGRAMME ASI1**

## ASI3 Formulation, validation and parameterization of small-scale processes in atmospheric modelling

**Convener:** Gert-Jan Steeneveld

**Co-Conveners:** Bert Holtslag; Matteo Zampieri

**Lecture Room:** Leo + Virgo

**08:30–10:30**

**Chairperson(s):** Bert Holtslag

**08:30–08:45: EMS2014-163**

The influence of small scale terrain features on the nocturnal boundary layer and grid-averaged fluxes

**Larry Mahrt**

NorthWest Research Associates, Redmond, WA, USA, mahrt@nwra.com

**08:45–09:00: EMS2014-152**

Atmospheric transfer coefficients in climate models for different topography and stability regimes over polar sea ice

**Christof Lüpkes**, Vladimir M. Gryanik, Wolfgang Dorn

Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung, Bremerhaven, Germany  
(Christof.Luepkes@awi.de)

**09:00–09:15: EMS2014-260**

Evaluation of the Weather Research Forecasting model for three contrasting sites over snow in stable conditions with light winds

Marina Sterk, **Gert-Jan Steeneveld**, Timo Vihma, Fred Bosveld, Phil Anderson, Bert Holtslag

Wageningen University, Meteorology and Air Quality Section, Wageningen, Netherlands  
(gert-jan.steeneveld@wur.nl)

**09:15–09:30: EMS2014-605**

Height scales in stable boundary layers

**Francesco Tampieri**

CNR, ISAC, Bologna, Italy (f.tampieri@isac.cnr.it)

**09:30–09:45: EMS2014-602**

Evaluation of WRF Boundary Layer Profiles against Radiosoundings in Northern Greenland in winter conditions

Hristina Kirova, **Ekaterina Batchvarova**, Sven-Erik

Gryning, Henrik Skov, Lise Lotte Soerensen, Christoph Munkel

National Institute of Meteorology and Hydrology, Bulgarian Academy of Sciences, Sofia, Bulgaria; Technical University of Denmark, DTU Wind Energy, Roskilde, Denmark;

**09:45–10:00: EMS2014-174**

Importance of Aerosols in Predicting the onset of Radiation Fog

**Sreenivas K R**, Dhiraj Kumar Singh, Ponnulakshmi, V K, Ganesh Subramanian

Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, Engineering Mechanics Unit, Bangalore, India (krs@jncasr.ac.in)



**10:00–10:15: EMS2014-375**

Radiation fogs: WRF and LES numerical experiments  
**Carlos Román-Cascón**, Gert-Jan Steeneveld, Carlos Yagüe, Mariano Sastre, Gregorio Maqueda  
 Universidad Complutense de Madrid, Departamento Geofísica y Meteorología, Madrid, Spain

**10:15–10:30: EMS2014-386**

Boundary-layer and land-surface schemes in WRF for the evening transition during the BLLAST campaign  
**Mariano Sastre**, Gert-Jan Steeneveld, Carlos Yagüe, Carlos Román-Cascón, Gregorio Maqueda  
 Universidad Complutense de Madrid, Facultad de Ciencias Físicas, Geofísica y Meteorología, Madrid, Spain (msastrem@ucm.es)

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Gert-Jan Steeneveld

**11:30–11:45: EMS2014-239**

Improving sensitivity to vegetation variability in the EC-Earth earth system model (solicited)  
**Andrea Alessandri**, Franco Catalano, Matteo De Felice  
 Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA), C.R. Casaccia, UTMEA-CLIM, Santa Maria di Galeria, Rome, Italy (andrea.alessandri@enea.it)

**11:45–12:00: EMS2014-49**

Subgrid-Scale Turbulent Transport in Convective Boundary Layers at Gray-Zone Resolutions  
**Song-You Hong**, Hyeyum Hailey Shin  
 (shong@yonsei.ac.kr)

**12:00–12:15: EMS2014-271**

Band approach with selective intermittent strategy - a new way of doing effective and yet accurate radiative transfer calculations?  
**Jean-François Geleyn**, Jan Mašek, Radmila Brožková, Peter Kuma  
 CNRM, Météo-France, Toulouse, France  
 (jean-francois.geleyn@meteo.fr)

**12:15–12:30: EMS2014-468**

Very high-resolution modeling with COSMO focusing on land-surface impacts  
**Leonhard Gantner**, Norbert Kalthoff, Vera Maurer  
 Institut für Meteorologie und Klimaforschung (IMK-TRO, KIT), Karlsruhe, Germany (vera.maurer@kit.edu)

**12:30–12:45: EMS2014-217**

Measurements and modelling of turbulence statistics and CO<sub>2</sub> fluxes above a land-water mosaic area in Denmark  
**Andrey Sogachev**, Ebba Dellwik  
 Technical University of Denmark, Wind Energy, Roskilde, Denmark (anso@dtu.dk, ebde@dtu.dk)

**12:45–13:00: EMS2014-579**

Estimation of the wind velocity standard deviations in the suburban and urban surface layer using parameters measured in the roughness sublayer.  
 Simona Falabino, Silvia Trini Castelli  
 C.N.R., ISAC, Torino, Italy (trini@to.infn.it), Dept. of Physics, University of Torino

## ASI5/CE7 Biometeorology (co-organized)

**Convener:** Andreas Matzarakis  
**Co-Convener:** Tanja Cegnár  
**Lecture Room:** Taurus

**16:30–18:30**

**Chairperson(s):** Andreas Matzarakis

**16:30–16:45: EMS2014-50**

Thermal Indices and Application in Biometeorology  
**Andreas Matzarakis**  
 University of Freiburg, Chair of Meteorology and Climatology, Freiburg, Germany  
 (andreas.matzarakis@meteo.uni-freiburg.de)

**16:45–17:00: EMS2014-580**

Spatial variation of human thermal comfort and impact of mean radiant temperature during a heat-wave in the town of Wageningen, The Netherlands  
**Bert G. Heusinkveld**, Gert-Jan Steeneveld, Reinder J. Ronda, Jisk J. Attema, Albert A.M. Holtslag  
 Netherlands (bert.heusinkveld@wur.nl)

**17:00–17:15: EMS2014-31**

Human thermal bioclimatic conditions associated with respiratory diseases in Crete Island, Greece  
 Anastasia G. Bleta, Panagiotis T. Nastos, **Panagiotis Agouridakis**, George Notas, Nikolaos A. Kampanis  
 University of Crete Medical School, School of Medicine, Greece

**17:15–17:30: EMS2014-26**

Human-biometeorological estimation of adaptation- and mitigation possibilities of urban green based on measurements and regional climate modelling in Southwest Germany  
**Dominik Froehlich**, Andreas Matzarakis  
 Chair for Meteorology and Climatology, Albert-Ludwigs-University Freiburg, Germany  
 (dominik.froehlich@meteo.uni-freiburg.de)

**17:30–17:45: EMS2014-644**

The role of trees in urban thermal comfort and SkyView Factor  
**Ahmet Koc**, Sevgi Yilmaz, M. Akif Irmak, Andreas Matzarakis  
 Fac. of Architecture and Design, Dept. of Landscape Architecture, 25240, Erzurum, Turkey

**17:45–18:00: EMS2014-51**

Micro Scale Models for Human-Biometeorological Assessment  
**Andreas Matzarakis**  
 University of Freiburg, Chair of Meteorology and Climatology, Freiburg, Germany  
 (andreas.matzarakis@meteo.uni-freiburg.de)

**18:00–18:15: EMS2014-483**

Sferics bio-effects on humans - new subject-related statistical investigations in meteorosensitivity  
**Christian König**, Florian König  
 Press & Media, Erding, Germany  
 (christiankoenig2004@yahoo.de)

**18:15–18:30: Discussion about methods and models**

## ASI6 Atmospheric measurements from the local to the regional scale: Concepts, new technologies and scientific progress

**Convener:** Frank Beyrich  
**Co-Convener:** Fred C. Bosveld  
**Lecture Room:** Leo + Virgo

**16:30–18:30**

**Chairperson(s):** F. Beyrich

### Surface-Atmosphere Interaction

#### 16:30–17:00: EMS2014-192

Atmospheric Station Kresin u Pacova, Czech Republic - a central European research infrastructure for studying greenhouse gases, aerosols and air quality (solicited)  
**Alice Dvorska**, Michal Fusek, Vlastimil Hanus, Katerina Hoskova, Jaroslav Michalek, Pavel Prosek, Jaroslav Schwarz, Pavel Sedlak, Milan Vana, Petr Veselik, Petr Vodicka, Vladimir Zdimal, Nada Zikova  
 Global Change Research Centre AS CR, Department of Atmospheric Matter Fluxes and Long-range Transport, Brno, Czech Republic  
 (dvorska.a@czechglobe.cz)

#### 17:00–17:15: EMS2014-200

25 Years of Evaporation Observations at the Cabauw Experimental Site for Atmospheric Research (CESAR).  
**Fred C. Bosveld**  
 KNMI, De Bilt, Netherlands (Fred.Bosveld@knmi.nl)

#### 17:15–17:30: EMS2014-139

An analysis of ten years atmosphere-surface water and energy transfer data from a micrometeorological station in Salento peninsula (southern Italy)  
**Paolo Martano**, Cosimo Elefante, Fabio Grasso  
 CNR-ISAC, Lecce, Italy (p.martano@isac.cnr.it)

#### 17:30–17:45: EMS2014-577

GRUAN: reference quality upper air measurements from radiosoundings  
**Ruud Dirksen**, Michael Sommer, Holger Vömel  
 Deutscher Wetterdienst, Meteorologisches Observatorium Lindenberg - Richard Assmann  
 Observatorium, Lindenberg/Tauche, Germany  
 (ruud.dirksen@dwd.de)

#### 17:45–18:00: EMS2014-135

Characteristics of leads in sea ice and their impact on the atmospheric boundary layer measured during the aircraft campaign STABLE 2013  
**Amelie Tetzlaff**, Christof Lüpkes, Jörg Hartmann, Gerit Birnbaum, Timo Vihma, Tiina Nygård  
 Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung, Bremerhaven, Germany

#### 18:00–18:15: EMS2014-498

Measurements of Lake-Atmosphere interactions at Alqueva reservoir  
**Miguel Potes**, Rui Salgado, Maria João Costa  
 Universidade de Évora, Centro de Geofísica de Évora, Évora, Portugal (mpotes@uevora.pt)

#### 18:15–18:30: EMS2014-33

Nitrogen dioxide and formaldehyde observations at DOAS Network in Moscow Region  
**Alexander Borovski**, Aleksander Elokhov, Oleg Postilyakov, Victor Ivanov, Yugo Kanaya  
 A.M. Obukhov Institute of Atmospheric Physics, Russian Academy of Sciences, Russian Federation  
 (alexander.n.borovski@gmail.com)

### ORAL PROGRAMME ASI6 continues on Friday

## ASI8 Boundary-layer physics and parameterizations in weather and climate models

**Convener:** Sergej Zilitinkevich  
**Co-Convener:** Arakel Petrosyan  
**Lecture Room:** Leo + Virgo

**14:00–16:00**

#### 14:00–14:30: EMS2014-491

Turbulence and organised structures in atmospheric convective boundary layer (solicited)  
**Sergej Zilitinkevich**, Nathan Kleeorin, Igor Rogachevskii, Antti Hellsten  
 Finnish Meteorological Institute, Finland, University of Helsinki, Finland, Nizhny Novgorod State University, Russia

#### 14:30–14:45: EMS2014-9 (YSTA)

Shear Capacity as Predictor of Nocturnal Boundary Layer Regimes  
**Ivo van Hooijdonk**, Bas van de Wiel, Judith Donda, Fred Bosveld, Jielun Sun, Herman Clercx  
 Fluid Dynamics Laboratory, Eindhoven University of Technology, Eindhoven, Netherlands  
 (i.g.s.v.hooijdonk@tue.nl)

#### 14:45–15:00: EMS2014-203

A new formula for low-wind spectra in stable and unstable conditions  
**Luca Mortarini**, Domenico Anfossi  
 ISAC - CNR, Torino, Italy (l.mortarini@isac.cnr.it)

#### 15:00–15:15: EMS2014-412

Compact framework of stability dependency functions for turbulent schemes with prognostic TKE.  
**Ivan Bašták Ďurán**, Jean-François Geleyn, Filip Váňa  
 ONPP/CHMI, Praha, Czech Republic  
 (ivan.bastak@chmi.cz)

#### 15:15–15:30: EMS2014-586

The planetary boundary layer height at Ny-Alesund: a comparison among different formulations based on measurements and models  
 Oxana Drofa, Christian Lanconelli, Angelo Lupi, Mauro Mazzola, **Francesco Tampieri**, Angelo Viola, Marion Maturilli, Christoph Ritter, Alexander Schultz  
 CNR, ISAC, Bologna, Italy (f.tampieri@isac.cnr.it)

**15:30–15:45: EMS2014-22**

High-resolution simulations of a very stable boundary layer using the WRF and COSMO models: A Comparative Study

**Ines Cerenzia**, Sukanta Basu, Tony Christian Landi, Giovanni Bonafè  
Department of Geophysics, Bologna University, Italy  
(icerenzia@arpa.emr.it)

**15:45–16:00: EMS2014-370**

The role of the turbulence in the topographic scheme of the WRF model to improve the surface wind speed over the Iberian Peninsula

**Raquel Lorente-Plazas**, Pedro Ángel Jimenez, Jimy Dudhia, Pedro Jimenez-Guerrero, Juan Pedro Montávez  
University of Murcia, Dept. of Physics, Murcia, Spain  
(lorente.plazas@gmail.com)

**END OF ORAL PROGRAMME ASI8**

## ASI9 Interfacing hydrological and meteorological models in forecasting system

**Convener:** Herbert Formayer

**Co-Conveners:** Bodo Ahrens; Massimiliano Zappa

**Lecture Room:** Taurus

**11:30–12:45**

**Chairperson(s):** Herbert Formayer

**11:30–12:00: EMS2014-391**

Downscaling near-surface atmospheric fields based on multi-objective Genetic Programming

**Tanja Zerenner**, Victor Venema, Petra Friederichs, Clemens Simmer  
Meteorological Institute, University of Bonn, Germany

**12:00–12:15: EMS2014-461**

Real-time hydrometeorological ensemble for flash-floods forecasting within HYMEX

**Béatrice Vincendon**, Olivier Nuissier, François Bouttier, Véronique Ducrocq, Simon Edouard  
GAME/CNRM (Météo-France, CNRS), Toulouse, France

**12:15–12:30: EMS2014-469**

A Gaussian random field approach for aggregation and disaggregation of radar rainfall data

**Katharina Krebsbach**, Petra Friederichs  
University of Bonn, Meteorological Institute, Bonn, Germany  
(kkrebsbach@uni-bonn.de)

**12:30–12:45: EMS2014-488**

Influence of land surface-atmosphere interaction on deep moist convection in COSMO-CLM

**Erwan Brisson**, Christoph Brendel, Bodo Ahrens  
Institute for Atmospheric and Environmental Sciences, Goethe University of Frankfurt, Frankfurt am Main, Germany  
(sekretariat@iau.uni-frankfurt.de)

**END OF ORAL PROGRAMME ASI9**

## ASI10/MC5 Urban Climate (co-organized)

**Convener:** Martin Wattenbach

**Lecture Room:** Tycho

**08:30–10:30**

**Chairperson(s):** Martin Wattenbach

**08:30–08:45: EMS2014-176**

A Japanese validation project of a numerical model for simultaneous prediction of urban climate and building electricity demand

**Yukihiro Kikegawa**, Yukitaka Ohashi, Tomohiko Ihara, Minako Nabeshima, Yoshinori Shigeta  
Department of Interdisciplinary Science and Engineering, Meisei University, Tokyo, Japan

**08:45–09:00: EMS2014-85**

Urban morphology characterization from earth observation and land use classification for applications in urban climate models

**Saskia Buchholz**, Bianca Regeling, Wieke Heldens, Meinolf Kossmann, Thomas Esch, Susanne Jochner  
Deutscher Wetterdienst, Department Climate and Environment Consultancy, Frankfurter Straße 135, 63067 Offenbach, Germany

**09:00–09:15: EMS2014-286**

Changes of the synoptic conditions of Urban Heat Island Development in the region of Debrecen, Hungary between 1961 and 2010

**Elemér László**, Sándor Szegedi  
University of Debrecen, Department of Meteorology, Debrecen, Hungary  
(laszloelem@gmail.com)

**09:15–09:30: EMS2014-348**

Reinventing urban open spaces by different biomass strategies - Analysis of the microclimatic effects by measurements and modelling

**Maria Schmidt**, Stephan Weber  
Climatology and Environmental Meteorology, Institute of Geoecology, Technische Universität Braunschweig, Germany  
(maria.schmidt@tu-bs.de)

**09:30–09:45: EMS2014-373**

The ability of mesoscale climate model COSMO-CLM with the Double Canyon urban canopy scheme to simulate the urban heat island in Berlin

**Sahar Sodoudi**, Barbara Szenasi, Sebastian Schubert, Susanne Grossman-Clarke  
Freie Universität Berlin, Department of Meteorology, Germany  
(sodoudi@zedat.fu-berlin.de)

**09:45–10:00: EMS2014-389**

Relation between nocturnal winter Surface Urban Heat Island in cities in Poland, population density, night lighting and energy usage

**Lech Gawuś**, Joanna Struzewska  
Warsaw University of Technology, Poland  
(lech.gawuc@is.pw.edu.pl)

**10:00–10:15: EMS2014-454**

Simulation of Prague urban area with the integrated WRF/urban modelling system

**Jaroslav Resler**, Pavel Juruš, Kryštof Eben, Jan Karel, Radek Jareš  
Institute of Computer Science, Prague, Czech Republic  
(resler@cs.cas.cz)

**10:15–10:30: EMS2014-543**

Analyzing the impact of urban adaptation measures for Hamburg considering realistic atmospheric forcing

**Ronny Petrik**, Marita Linde, K. Heinke Schlünzen, Nora Teichert  
University of Hamburg, Meteorological Institute, Germany (ronny.petrik@zmaw.de)

**10:30 Coffee Break & Poster Sessions****11:30–12:41**

**Chairperson(s):** Martin Wattenbach

**11:30–11:45: EMS2014-553**

Multi-season variability of evapotranspiration on urban and rural areas in Central Poland - selected results of direct measurements and numerical estimations

**Mariusz Siedlecki**, Włodzimierz Pawlak, Krzysztof Fortuniak  
University of Lodz, Department of Meteorology and Climatology, Lodz, Poland (siedlec@geo.uni.lodz.pl)

**11:45–12:00: EMS2014-504**

Air temperature retrieval from crowd-sourced smartphone battery temperatures for Dutch cities and its application in mesoscale model validation  
Aart Overeem, James Robinson, Hidde Leijnse, Remko Uijlenhoet, **Gert-Jan Steeneveld**, Berthold Horn  
Wageningen University, Meteorology and Air Quality Section, Wageningen, Netherlands  
(gert-jan.steeneveld@wur.nl)

**12:00–12:15: EMS2014-572**

Studying the modification of precipitation in the urban region of Hamburg using an idealistic model setup  
**Ronny Petrik**, Mirka Fischer, K. Heinke Schlünzen  
University of Hamburg, Meteorological Institute, Germany (ronny.petrik@zmaw.de)

**12:15–12:30: EMS2014-99**

Net turbulent flux of methane in the city - methodological consideration and preliminary results from Lodz, Poland  
Włodzimierz Pawlak, **Krzysztof Fortuniak**  
University of Lodz, Institute of Geographical Sciences, Department of Meteorology and Climatology, Lodz, Poland (wpawlak@uni.lodz.pl)

**12:30–12:40: The Climate Knowledge and Innovation Community (climate-KIC)****12:40–12:41: Note the talk EMS2014-579 at 12:45 in parallel Session ASI3**

"Estimation of the wind velocity standard deviations in the suburban and urban surface layer using parameters measured in the roughness sub-layer"

**END OF ORAL PROGRAMME ASI10/MC5**

**ASI12/MC4 Phenology and agrometeorology (co-organized)**

**Convener:** Elisabeth Koch

**Co-Conveners:** Josef Eitzinger; Branislava Lalic

**Lecture Room:** Taurus

**08:30–10:30**

**Chairperson(s):** Elisabeth Koch

**08:30–08:45: EMS2014-583**

Using phenology to communicate biological effects of climate change

**Elisabeth Koch**, Kjell Bolmgren, This Rutishauser, Thomas Hübner, Anita Jurkovic, Helfried Scheifinger, Markus Ungersböck  
Central Institute for Meteorology and Geodynamics, Climatology, Vienna, Austria  
(elisabeth.koch@zamg.ac.at)

**08:45–09:00: EMS2014-541**

The Potential Impacts of Future Climate Change on Agriculture in Citarum Watershed

**Perdinan Perdinan**, Impron Impron, Sisi Febriyanti Muin, Rizaldi Boer, Akhmad Faqih  
Center for Climate Risk and Opportunity Management in Southeast Asia and Pacific (CCROM-SEAP), Bogor Agricultural University (IPB), Bogor, Indonesia (e-Mail: ccromseap.ipb@gmail.com), Department of Geophysics and Meteorology, Faculty of Mathematics and Natural Sciences, Bogor Agricultural University (IPB), Indonesia

**09:00–09:15: EMS2014-609**

Application of high-resolution climate measurement and modelling to the adaptation of New Zealand vineyard regions to climate variability

**Peyman Zawar-Reza**, Andrew Sturman, Marwan Katurji, Eila Gendig, Tobias Schulmann, Iman Soltanzadeh  
Centre for Atmospheric Research, University of Canterbury, New Zealand  
(peyman.zawar-reza@canterbury.ac.nz)

**09:15–09:30: EMS2014-542**

Contrasted warming patterns in both hemispheres result in divergent blooming trends for apple.

Gustavo Malagi, Adnane El Yaacoubi, **Marc Bonhomme**, Gabriel Berenhauser Leite, Jean Michel Legave  
INRA UMR 547 PIAF, Clermont-Ferrand, France (Marc.bonhomme@clermont.inra.fr), Clermont Université Université Blaise Pascal UMR 547 PIAF, Clermont-Ferrand, France

**09:30–09:45: EMS2014-229**

Fine-scale ecological and economic assessment of climate change on olive in the Mediterranean Basin reveals winners and losers

**Luigi Ponti**, Andrew Paul Gutierrez, Paolo Michele Ruti, Alessandro Dell'Aquila  
ENEA, UTAGRI - Laboratorio Gestione Sostenibile degli Agroecosistemi, Rome, Italy, Center for the Analysis of Sustainable Agricultural Systems Global, Kensington

**09:45–10:00: EMS2014-191**

Reed (*Phragmites australis*) crop coefficient and evapotranspiration at the surroundings of Lake Balaton

**Angela Anda**, Gábor Soós

University of Pannonia, Meteorology and Water,  
Keszthely, Hungary (anda-a@georgikon.hu)

**10:00–10:15: EMS2014-78**

Verification of the photosynthesis-driven phenology of the ISBA-A-gs model

**Jean-Christophe Calvet**, Camille Szczypka, Nicolas Canal

CNRM-GAME (Météo-France, CNRS), GMME/VEGEO,  
Toulouse, France (jean-christophe.calvet@meteo.fr)

**10:15–10:30: EMS2014-571**

Stochastic weather generator M&Rfi: it works not only with the daily step and normally distributed variables

**Martin Dubrovsky**, Miroslav Trnka

Institute of Atmospheric Physics, Praha, Czech Republic (dub@ufa.cas.cz), CzechGlobe - Center for Global Climate Change Impacts Studies, Brno, Czech Republic

**END OF ORAL PROGRAMME ASI12/MC4**

## Side Meetings & Workshops

### SIM7 RCC Network (RA VI) Workshop (public)

**Convener:** Stefan Rösner

**Lecture Room:** Aquarius

**08:30–13:00**

### SIM15 ESSL ESWD meeting (by invitation only)

**Convener:** Alois M. Holzer

**Lecture Room:** Quadrant

**08:30–19:00**

### SIM12 JPI climate meeting on user-provider interaction (public)

**Convener:** Carlo Buontempo

**Lecture Room:** Aquarius

**14:00–16:00**

## European Conference on Applied Climatology (ECAC)

### Monitoring climate and climate change

#### MC1 Climate monitoring; data rescue, management, quality and homogenization

**Convener:** Manola Brunet-India

**Co-Conveners:** Ingeborg Auer; Victor Venema; Dan Hollis; Hermann Mächel

**Poster Area:** Meridian Left Front

**Chairperson(s):** Manola Brunet and Inge Auer

**Attendance Time:** 10:30–11:30

#### Data Rescue

##### LF1: EMS2014-72

The EuMetNet Data Rescue portal

**Ingeborg Auer**, Barbara Chimani and the EUMETNET Data Rescue Expert Team  
Central Institute for Meteorology and Geodynamics, Climatology, Vienna, Austria  
([ingeborg.auer@zamg.ac.at](mailto:ingeborg.auer@zamg.ac.at))

##### LF2: EMS2014-75

Improving the input data to enhance high-resolution regional reanalysis over Europe: the UERRA project contribution

**Manola Brunet-India**, Ian Harris, Joan Ramon Coll, Philip D. Jones, Per Undén  
University Rovira i Virgili, Centre for Climate Change (C3), Geography, Tarragona, Spain  
([manola.brunet@urv.cat](mailto:manola.brunet@urv.cat)), Climatic Research Unit, School of Environmental Sciences, University of East Anglia, Norwich, UK

##### LF3: EMS2014-156

Data rescue of national and international meteorological observations at Deutscher Wetterdienst  
Birger Tinz, Hermann Mächel, **Frank Kaspar**, Wolfgang Gloeden, Gudrun Rosenhagen  
Deutscher Wetterdienst, Offenbach, Germany

##### LF4: EMS2014-568

Free access to climate observations from Germany - An overview of recent achievements of DWD's Climate Data Center (CDC)

**Frank Kaspar**, Andrea Kaiser-Weiss, Elsbeth Penda, Hermann Mächel  
Deutscher Wetterdienst, Offenbach, Germany  
([frank.kaspar@dwd.de](mailto:frank.kaspar@dwd.de))

#### Time-Series Quality Control and Homogenisation

##### LF5: EMS2014-10

HOMER and ACMANT comparison methods for central Pyrenees temperature

**Nuria Perez-Zanón**, Javier Sigro, Peter Domonkos  
Universitat Rovira i Virgili, Centre for Climate Change (C3), Tarragona, Spain ([nuria.perez@urv.cat](mailto:nuria.perez@urv.cat))

##### LF6: EMS2014-143

Comparison of early Upper-Air Observations in China and Korea with the Twentieth Century Reanalysis

**Alexander Stickler**, Richard Wartenburger, Stefan Brönnimann  
Oeschger Centre for Climate Change Research, Bern, Switzerland, Institute of Geography, University Bern, Switzerland ([alexander.stickler@giub.unibe.ch](mailto:alexander.stickler@giub.unibe.ch))

##### LF7: EMS2014-197

Quality control of 10-min soil temperatures data at RMI

**Cedric Bertrand**, Luis Gonzalez Sotelino  
Royal Meteorological Institute of Belgium, Climatology, Brussels, Belgium ([Cedric.Bertrand@meteo.be](mailto:Cedric.Bertrand@meteo.be))

##### LF8: EMS2014-201

Homogeneity of Monthly Air Temperature in Estonia with HOMER

**Helve Meitern**, Kairi Vint, Sirje Keevalik  
Estonia ([Helve.Meitern@envir.ee](mailto:Helve.Meitern@envir.ee))

##### LF9: EMS2014-413

Is the global mean temperature trend too low?

**Victor Venema**, Ralf Lindau  
University of Bonn, Meteorological institute, Bonn, Germany ([victor.venema@uni-bonn.de](mailto:victor.venema@uni-bonn.de))

##### LF10: EMS2014-501

Production of a reference data set of homogenised series for analysis of temperature evolution in France since 1959

**Anne-Laure Gibelin**, Lola Corre, Nathalie Deaux, Brigitte Dubuisson, Sylvie Jourdain, Laurence Laval, Jean-Michel Piquemal  
Météo-France - Direction de la Climatologie, Toulouse, France ([anne-laure.gibelin@meteo.fr](mailto:anne-laure.gibelin@meteo.fr))

#### Climate Monitoring

##### LF11: EMS2014-341

Constructing a pan-European database of past meteorological drought events

**Jonathan Spinoni**, Juergen Vogt, Gustavo Naumann, Paulo Barbosa  
European Commission, Joint Research Centre, Institute for Environment and Sustainability, Italy  
([jonathan.spinoni@jrc.ec.europa.eu](mailto:jonathan.spinoni@jrc.ec.europa.eu))

##### LF12: EMS2014-246

The FORBIO Climate data set for climate analyses

**Charles Delvaux**, Michel Journée, Cédric Bertrand  
Royal Meteorological Institute of Belgium, Brussels, Belgium

**LF13: EMS2014-258**

Workflow tools for long-term storage of geoscientific data and education of future scientists in data management

**Petra Gebauer**, Ingo Kirchner, Nora Mettig  
Free University Berlin, Institute for Meteorology, Berlin, Germany (petra.gebauer@met.fu-berlin.de)

**LF14: EMS2014-123**

A long instrumental Greenland temperature record 1784-2013

**John Cappelen**, Bo Vinther  
(jc@dmi.dk)

**LF15: EMS2014-130**

Release of an improved Full Data Reanalysis and Climatology of the Global Precipitation Climatology Centre (GPCC)

**Markus Ziese**, Udo Schneider, Anja Meyer-Christoffer, Peter Finger, Andreas Becker  
German Weather Service, Hydrometeorology, Offenbach am Main, Germany (markus.ziese@dwd.de)

**END OF POSTER PROGRAMME MC1****MC2 Spatial Climatology**

**Convener:** Ole Einar Tveito

**Co-Conveners:** Mojca Dolinar; Christoph Frei

**Poster Area:** Meridian Left Front

**Chairperson(s):** Mojca Dolinar

**Attendance Time:** 10:30–11:30

**LF16: EMS2014-39**

Seasonality of heavy precipitation in mid-elevation mountain systems in Central Europe: a case study of the Vosges (France)

**Jana Minarova**, Miloslav Müller, Alain Clappier, Georges Najjar  
Department of Physical Geography and Geoecology, Charles University in Prague, Prague, Czech Republic (jana.minarova@natur.cuni.cz), Laboratoire Image, Ville, Environnement, National Center for Scientific Research & University of Strasbourg, Strasbourg, France (jana.minarova@live-cnrs.unistra.fr)

**LF17: EMS2014-108**

Climate maps of air temperature and precipitation in Belgium

**Michel Journée**  
Royal Meteorological Institute of Belgium, Brussels, Belgium (michel.journee@meteo.be)

**LF18: EMS2014-131**

Applying the Global Precipitation Climatology Centre (GPCC) data base to investigate the impact of changing reference periods

**Markus Ziese**, Udo Schneider, Anja Meyer-Christoffer, Peter Finger, Andres Becker  
German Weather Service, Hydrometeorology, Offenbach am Main, Germany (markus.ziese@dwd.de)

**LF19: EMS2014-177**

IT-environment for supporting climate services

**Igor Okladnikov**, Evgeny Gordov, Alexander Titov, Tamara Shulgina  
IMCES SB RAS, Tomsk, Russian Federation (oig@scert.ru), ICT SB RAS, Tomsk branch, Tomsk, Russia

**LF20: EMS2014-337**

Climate change in the Carpathian Region

**Jonathan Spinoni**, Juergen Vogt, Sandor Szalai, Tamas Szentimrey, Monika Lakatos, Zita Bihari, Dragan Mihic, Sorin Cheval  
Joint Research Center - European Commission, Joint Research Centre, Institute for Environment and Sustainability, ITALY (jonathan.spinoni@jrc.ec.europa.eu)

**LF21: EMS2014-352**

Modeling of atmospheric precipitation field in Slovakia

**Pavel Štastný**, Pavel Faško, and Marek Švec  
Slovak Hydrometeorological Institute, Bratislava, Slovakia (pavol.fasko@shmu.sk)

**LF22: EMS2014-381**

Trends in reference evapotranspiration in the context of climate variability in Poland (1971-2010)

**Pawel Bogawski**, Ewa Bednorz  
Adam Mickiewicz University in Poznan, Faculty of Biology, Laboratory of Aeropalynology, Poznan, Poland (bogawski@amu.edu.pl), Adam Mickiewicz University in Poznan, Faculty of Geographical and Geological Sciences, Department of Climatology

**LF23: EMS2014-487**

Spatial analysis of precipitation extremes in Switzerland

**Christoph Frei**, Anne Schindler, Sophie Fukutome  
Federal Office of Meteorology and Climatology MeteoSwiss, Zürich, Switzerland (christoph.frei@meteoswiss.ch)

**LF24: EMS2014-529**

Spatial characteristics of the air humidity in Slovakia in the period 1961-2010

Katarína Mikulová, **Hana Kapolková**, Peter Kajaba, Gabriela Ivaňáková, Pavel Štastný  
Slovak Hydrometeorological Institute, Bratislava, Slovakia (peter.kajaba@shmu.sk)

**LF25: EMS2014-28**

Temperature analysis on the North-Western Italian Alps through the use of ground-based meteorological stations, spatial interpolation and satellite images

**Diego Garzena**, Fiorella Acquavotta, Enrico Borgogno Mondino, Simona Fratianni, Michele Freppaz, Danilo Godone  
Dept. of Earth Sciences, University of Turin, Turin, Italy (diego.garzena@unito.it)

**LF26: EMS2014-561**

Spatial analysis of precipitation in a high-mountain region: Exploring methods with multi-scale topographic predictors and circulation types

**David Masson**, Christoph Frei  
MeteoSwiss, Climate Analysis, Zurich, Switzerland (massond@phys.ethz.ch)

**LF27: EMS2014-530**

High-resolution Spatial Interpolation of Hourly Temperature in Norway  
**Cristian Lussana**, Ole Einar Tveito  
 Norwegian Meteorological Institute, Meteorology and Climate Department - Division for Climate Services - Section for Data and Spatial Analysis, Oslo, Norway  
 (cristianl@met.no)

**END OF POSTER PROGRAMME MC2**

## Understanding processes and climate change

### UC4/SE3 Global and regional reanalyses (co-organized)

**Convener:** A. K. Kaiser-Weiss  
**Co-Conveners:** Leopold Haimberger; Ge Verver; Dick Dee; Eric Bazile  
**Poster Area:** Meridian Left Back  
**Attendance Time:** 10:30–11:30

**LB19: EMS2014-453**

Atmospheric Motion Vectors from EUMETSAT for the use in global reanalysis  
 Roger Huckle, **Marie Dautriaux-Boucher**, Alessio Lattanzio, Joerg Schulz  
 EUMETSAT, Darmstadt, Germany  
 (Joerg.Schulz@eumetsat.int)

**LB20: EMS2014-502**

The two faces of the Global Warming in the ERA-20CM experiment  
**Valerio Lembo**, Piero Lionello  
 University of Salento, DISTEBA, Lecce, Italy  
 (piero.lionello@unisalento.it), CMCC, Centro Euro-Mediterraneo sui Cambiamenti Climatici

**LB21: EMS2014-505**

Response of the Mean Meridional Circulation to El-Niño/La-Niña in the ERA-20CM Experiment Simulations  
**Roberta D'Agostino**, Piero Lionello  
 University of Salento, DISTEBA, Lecce, Italy  
 (piero.lionello@unisalento.it), CMCC, Euro-Mediterranean Centre on Climate Change

**LB22: EMS2014-540**

Using feedback statistics for evaluating global and regional reanalyses - an example approach applied to wind data  
**André Obregón**, Andrea Kaiser-Weiss, Liselotte Bach, Michael Borsche, Hilppa Gregow, Paul Poli, David Tan, Frank Kaspar  
 Deutscher Wetterdienst, Offenbach, Germany

**LB23: EMS2014-142**

Comparison of Upper-Air Observations from the German Atlantic Expedition 1925-27 with the Twentieth Century Reanalysis  
**Alexander Stickler**, Richard Wartenburger, Samuel Storz, Christof Jörg, Stefan Brönnimann  
 Oeschger Centre for Climate Change Research, Bern, Switzerland, Institute of Geography, University of Bern, Switzerland (alexander.stickler@giub.unibe.ch)

**LB24: EMS2014-574**

How to characterize uncertainties in regional reanalyses  
**Michael Borsche**, Andrea Kaiser-Weiss, André Obregón, Frank Kaspar  
 Deutscher Wetterdienst, Offenbach, Germany  
 (michael.borsche@dwd.de)

**LB25: EMS2014-3**

The effects of precipitation on traffic accidents in Sofia, Bulgaria  
**Zornitsa Spasova**, Tsvetan Dimitrov, Anelia Gocheva, Daniela Bozhilova  
 National Center of Public Health and Analyses, Health Policies Analyses, Sofia, Bulgaria  
 (Z.Spasova@ncpha.government.bg)

**LB26: EMS2014-434**

Assessment of water cycle parameters in high-resolution reanalysis  
 Stephanie Redl, Sandra Steinke, Susanne Crewell, Christoph Bollmeyer, **Jan Keller**, Mario Mech, Galina Dick  
 Hans-Ertel-Centre for Weather Research, Climate Monitoring Branch, Deutscher Wetterdienst, Offenbach, Germany

**LB27: EMS2014-363**

Towards a high-resolution LETKF / ensemble nudging reanalysis system  
**Liselotte Bach**, Jan D. Keller, Christian Ohlwein, Andreas Hense, Petra Friederichs  
 University of Bonn, Germany (libach@gmx.de)

**LB28: EMS2014-40**

Assessment of Regional Climate Model (RegCM) Simulations for High and Low Resolutions over Turkey between 1971-2000: Temperature and Precipitation  
**Simge irem Bilgen**, Ceren Balli, Yurdanur S. Unal  
 Istanbul Technical University (ITU), Graduate School of Science, Engineering and Technology, Atmospheric Sciences, Turkey (simgebilgen@gmail.com)

**END OF POSTER PROGRAMME UC4/SE3**



## Communication and Education

### CE3 Communication of uncertainty in seasonal prediction and climate projection

**Convener:** Haleh Kootval

**Co-Conveners:** Alberto Arribas; Anca Brookshaw; Tanja Cegnar

**Poster Area:** Meridian Right Front

**Chairperson(s):** A. Brookshaw

**Attendance Time:** 10:30–11:30

#### RF1: EMS2014-437

The user perspective of seasonal forecast in Basque Country

**Joseba Egaña**, Santiago Gaztelumendi

TECNALIA - Meteorology Area, Basque Meteorology Agency (EUSKALMET)

#### RF2: EMS2014-658

Transdisciplinary communication and stakeholder integration in climate change adaptation - a systematic literature review

**Jo-Ting Huang**, Matthias Bergmann, Carina Brinkmann, Simone Rödder, Susanne Schuck-Zöllner  
Chair of Environmental Management and Accounting,  
Faculty of Business and Economics, TU Dresden  
(jo-ting.huang@tu-dresden.de)

**END OF POSTER PROGRAMME CE3**

## The Atmospheric System and its Interactions

### ASI1 Dynamical meteorology

**Convener:** Thomas Frisius

**Co-Conveners:** Alessandro Dell'Aquila; Frank Lunkeit

**Poster Area:** Meridian Right Front

**Chairperson(s):** Alessandro Dell'Aquila

**Attendance Time:** 10:30–11:30

#### RF3: EMS2014-5

Zonal jet formation in numerical simulations of a large rotating annulus experiment

**Paul Williams**, Christopher Kelsall

University of Reading, Department of Meteorology,  
Reading, United Kingdom (p.d.williams@reading.ac.uk)

#### RF4: EMS2014-387

Predictability of a Polar Vortex Splitting Event in the Stratosphere: An Ensemble Reforecast Experiment for January 2009

Shunsuke Noguchi, **Hitoshi Mukougawa**, Yuhji Kuroda,  
Ryo Mizuta, Hiroaki Naoe, Satoshi Noda, Shoukichi Yabu, Hiromasa Yoshimura  
Disaster Prevention Research Institute, Kyoto  
University, Uji, Japan

#### RF5: EMS2014-569

Spatial variability of the influence of the tropospheric thermobaric field on air temperature in Europe

**Marek Kosowski**, Slawomir Szot

Jagiellonian University, Institute of Geography and Spatial Management, Department of Climatology,  
Poland (marek.kosowski@uj.edu.pl)

#### RF6: EMS2014-255

The total precipitation in the warm half of the year in Poland in the relation to the water vapor transport

**Piotr Piotrowski**, Joanna Jędruszkiewicz

University of Lodz, Department of Meteorology and Climatology, Lodz, Poland (janos33@wp.pl;  
j.jedruszkiewicz@gmail.com)

**END OF POSTER PROGRAMME ASI1**

### ASI8 Boundary-layer physics and parameterizations in weather and climate models

**Convener:** Sergej Zilitinkevich

**Co-Conveners:** Arakel Petrosyan

**Poster Area:** Meridian Right Front

**Attendance Time:** 10:30–11:30

#### RF12: EMS2014-162

A study of speed-up behavior in neutral and stably-stratified boundary layer flows over complex terrain

**Jose Luis Argain**

University of Algarve, Physics Department, Faro, Portugal, jargain@ualg.pt

#### RF13: EMS2014-369

On the role of the atmospheric boundary layer (ABL) height in the Arctic amplification of climate change

**Svyatoslav Tyuryakov**, Timo Vihma, Sergej Zilitinkevich

Finnish Meteorological Institute, Helsinki, Finland  
(svyatoslav.tyuryakov@fmi.fi)

#### RF14: EMS2014-509

Comparison of Energy- and Flux-Budget turbulence closure with Large Eddy Simulation

**Evgeny Kadantsev**, Carl Fortelius, Andrey Glazunov, Sergej Zilitinkevich

University of Helsinki, Finland, Finnish Meteorological Institute, Finland

**END OF POSTER PROGRAMME ASI8**

## ASI10/MC5 Urban Climate (co-organized)

**Convener:** Martin Wattenbach

**Poster Area:** Meridian Right Front

**Chairperson(s):** Martin Wattenbach

**Attendance Time:** 10:30–11:30

### RF15: EMS2014-43

Bahrain Regains Greenery

**Sascha Henninger**, Hesham Elmarsafawy, Kai Tobias  
University of Kaiserslautern, Dep. of Physical  
Geography, Kaiserslautern, Germany  
(sascha.henninger@ru.uni-kl.de)

### RF16: EMS2014-350

Comparison of the energy balance of a suburban and rural site to study the microclimatic properties of urban open spaces

Sabrina Martin, Maria Schmidt, **Stephan Weber**  
Climatology and Environmental Meteorology, Institute of Geoecology, Technische Universität Braunschweig, Germany (s.weber@tu-bs.de)

### RF18: EMS2014-92

Urban climate model simulations and low-cost air temperature measurements for heat load assessment in Vienna

**Maja Zuvela-Aloise**, Brigitta Hollosi, Gernot Weyss  
ZAMG, Division Data, Methods, Modeling, Vienna, Austria (maja.zuvela-aloise@zamg.ac.at)

### RF19: EMS2014-168

An Experimental Study On Airflow In The Artificial Urban Canyon Consisting Of Temporary Buildings  
**Wooram Cho**, Do-Hyoung Kim, Geun-Hoi Kim, Jun Sang Park, Junyoung Jang, ChangBum Cho, Dae-Geun Lee, Seungsook Shin, Kyung-Yeub Nam, ByoungCheol Choi  
National Institute of Meteorological Research, Je-ju do, Republic of Korea (wrcho@korea.kr)

### RF20: EMS2014-230

Microclimatic effects of different building development plans as evaluated by a microclimate and a building energy model

David Heucke, Jannik Heusinger, **Stephan Weber**  
Climatology and Environmental Meteorology, Institute of Geoecology, Technische Universität Braunschweig, Germany (s.weber@tu-bs.de)

### RF21: EMS2014-333

Urban Heat Island of Prague - what we have learned from project UHI

**Michal Zak**, Pavel Zahradnicek, Petr Skalak  
Czech Hydrometeorological Institute, Dept. of Climatology, Prague, Czech Republic  
(michal.zak@chmi.cz)

### RF22: EMS2014-362

Correction of sensible heat flux by a large aperture scintillometer using bowen ratio over urban residential area in Seoul, Korea

**Jung-Hoon Chae**, Moon-Soo Park  
Weather Information Service Engine, Center for Atmospheric Science and Earthquake Research, Seoul 121-835, Republic of Korea (zhzhah79@gmail.com)

### RF23: EMS2014-522

Simulation-based evaluation of evapotranspiration of rooftop greening and its effect in mitigating heat island

**Yujiro Hirano**, Yukitaka Ohashi, Tsuyoshi Fujita  
National Institute for Environmental Studies, Japan

## END OF POSTER PROGRAMME ASI10/MC5

## ASI12/MC4 Phenology and agrometeorology (co-organized)

**Convener:** Elisabeth Koch

**Co-Conveners:** Josef Eitzinger; Branislava Lalic

**Poster Area:** Meridian Right Front

**Chairperson(s):** Elisabeth Koch

**Attendance Time:** 10:30–11:30

### RF24: EMS2014-534

Evapotranspiration from the forest cenose on the territory of Slovakia for the period 1951-2010

**Ján Hrvol**, Martin Gera, Maroš Turňa, Katarína Mikulová  
Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia

### RF25: EMS2014-317

Evaporation and evapotranspiration estimates under present and future climate conditions over Thessaly plain, Greece

**Panagiotis T. Nastos**, John Kapsomenakis, Spyros Kotsopoulos, Serafeim Poulos  
Department of Geography & Climatology, Faculty of Geology & Geoenvironment, National & Kapodistrian University of Athens, Greece (nastos@geol.uoa.gr)

### RF26: EMS2014-297

The influence of climate in the Portuguese "Vinho Verde" wine production

Helder Fraga, Aureliano Coelho Malheiro, José Moutinho-Pereira, **João Andrade Santos**  
Centre for the Research and Technology of Agro-environmental and Biological Sciences, CITAB, Universidade de Trás-os-Montes e Alto Douro, UTAD, 5001-801 Vila Real, Portugal (jsantos@utad.pt)

### RF27: EMS2014-323

Monitoring and Modeling of CH<sub>4</sub> Efflux from a Rice-Barley Double Cropping System in South Korea  
**Jong Chun**, Kyo-Moon Shim, Seonghyun Min  
APEC Climate Center, Republic of Korea (jachun@apcc21.org)

Friday, 10 October 2014						
Room	Zenit	Nadir	Leo+Virgo	Tycho	Taurus	Aquarius
08:30–10:30	<b>UC2:</b> Climate prediction and scenarios on decadal to centennial timescales	<b>ASI2:</b> Meteorology, climate and space weather	<b>ASI6:</b> Atmospheric measurements	<b>CE4:</b> Education	<b>ASI5/CE7:</b> Biometeorology	<b>SIM3:</b> CORECLIMAX Capacity Building Workshop
10:30–11:30	<b>Poster Session &amp; Coffee Break   Foyer and Room Meridian</b>  <i>Poster authors in attendance time for the following sessions:</i> ECAC programme group: <b>UC2</b> (LB6 - LB16), <b>UC3</b> (LB17 + LB18) CE programme group: <b>CE4</b> (RB1 - RB3) ASI programme group: <b>ASI2</b> (RB4 - RB6), <b>ASI5/CE7</b> (RB7 - RB11), <b>ASI6</b> (RB12 - RB25),					
11:30–13:00	<b>UC2</b>	<b>ASI2</b>	<b>ASI6</b>			<b>SIM3</b>
13:15	<b>Announcement of poster award recipient, Closing (13:15–14:00)</b> <b>Foyer</b>					

In the detailed daily programme (on pages 80 to 87) the related ECAC, CE and ASI sessions are listed in the following order: UC2, CE4, ASI2, ASI5/CE7, ASI6.

## NOTE

**CORECLIMAX Capacity Building Workshop: Climate Services: Products & tools to make choices**  
 Organisers: Bob Su, Wim J. Timmermans

The workshop originates from the FP7 CORECLIMAX project and aims at building capacities on the use of climate information. It will deal with future climate services and the usability of the terrestrial, oceanic as well as atmospheric climate data. The specific objectives are to provide guidance and expertise on the use of climate information and its associated uncertainty, and to provide generic tools to build the bridge between the climate data and the users' need.

The workshop will deal with the following questions: What data is there? How well does that data fit your needs? How can that data be used for Climate Services? Lectures and specific hands-on case studies will be given by leading experts (laptops will be available).

**Interested participants please apply to the workshop (40 seats available) at:**

<http://www.coreclimax.eu/?q=WorkshopCCBWCSApplication>

Workshop programme:

08:30–09:10: “Which data is out there?” - Bob Su  
 09:10–09:50: “Re-analyses products and data assimilation for Climate Services” - David Tan  
 09:50–10:30: “Which data are suitable for your application? – Support tools & info to make choices” – Joerg Schulz  
 10:30–11:30: Coffee break and discussion  
 11:30–12:30: Case studies / examples simultaneously:

“Combining reanalysis, in situ and impact data in a storm-related climate service” - Pauli Jokinen  
 “Pricing of a parametric reinsurance product triggered by extreme El Nino events” - Iakovos Bampadimos  
 “Return period of the summer 2003 drought in France” – Iakovos Bampadimos  
 “Climate scenarios at the local scale” – KNMI

12:30–13:00: Wrap-up; reporting from different groups

## European Conference on Applied Climatology (ECAC)

### Understanding processes and climate change

#### UC2 Climate prediction and scenarios on decadal to centennial timescales

**Convener:** Christof Appenzeller

**Co-Conveners:** Clare Goodess; Jean-Pierre Céron; Martin Widmann

**Lecture Room:** Zenit

#### 08:30–10:30

##### 08:30–08:45: EMS2014-136

Towards a limited-area climate ensemble prediction system for decadal forecasts

**Barbara Früh**, Fatemeh Davary-Adalatpanah, Claus-Jürgen Lenz

Deutscher Wetterdienst, Klima und Umweltberatung, Offenbach, Germany (barbara.fruh@dwd.de)

##### 08:45–09:00: EMS2014-508

Skill of probabilistic decadal forecasts regarding the frequencies of Northern Hemisphere extra-tropical cyclones

**Tim Kruschke**, Henning W. Rust, Christopher Kadow, Gregor C. Leckebusch, Uwe Ulbrich  
Freie Universität Berlin, Institute of Meteorology, Berlin, Germany (tim.kruschke@met.fu-berlin.de)

##### 09:00–09:15: EMS2014-545

KNMI'14: new climate scenarios for the Netherlands

**Albert M.G. Klein Tank**

Royal Netherlands Meteorological Institute, De Bilt, Netherlands (albert.klein.tank@knmi.nl)

##### 09:15–09:30: EMS2014-365

Selecting an optimum subset of climate models for climate impact studies - a case study

**Renate Wilcke**, Lars Barring, Thomas Mendlik  
Rossby Centre, Swedish Meteorological and Hydrological Institute, Norrköping, Sweden (renate.wilcke@smhi.se)

##### 09:30–09:45: EMS2014-620

Testing reliability of selected methods of future precipitation extremes projections. A Central Europe case

**Joanna Wibig**, Joanna Jedruszkiewicz  
University of Lodz, Meteorology and Climatology, Lodz, Poland (zameteo@uni.lodz.pl)

##### 09:45–10:00: EMS2014-623

Integrated climate change assessment with climate classification

**Michal Belda**, Tomas Halenka, Jaroslava Kalvova, Eva Holtanova  
Charles University in Prague, Prague, Czech Republic (tomas.halenka@mff.cuni.cz)

##### 10:00–10:15: EMS2014-449

Future changes and signal analyses in the Mediterranean Area deduced from a CMIP3 multi-model ensemble

**Gernot Vogt**

German Weather Service, 63067 Offenbach, Germany (gernot.vogt@dwd.de)

##### 10:15–10:30: EMS2014-619

The “usability gap”: the UK Climate Projections 2009 and adaptation decision making amongst organisations

**Suraje Dessai**, Geoff Whitman

Sustainability Research Institute, University of Leeds, Leeds, United Kingdom (s.dessai@leeds.ac.uk)

#### 10:30 Coffee Break & Poster Sessions

#### 11:30–13:00

##### 11:30–11:45: EMS2014-14 (YSTA)

Projected changes of percentile-based precipitation indices for the 21st century in Central/Eastern Europe

**Anna Kis**, Rita Pongrácz, Judit Bartholy

Dept. of Meteorology, Eötvös Loránd University, Budapest, Hungary (kisanna@nimbus.elte.hu, prita@nimbus.elte.hu, bartholy@caesar.elte.hu)

##### 11:45–12:00: EMS2014-403

Climate changes over Central Europe for 2050 based on a dynamical downscaling with the interactive GEM-AC model

**Joanna Struzewska**, Jacek W. Kaminski  
Warsaw University of Technology, Department of Environmental Engineering, Warsaw, Poland (joanna.struzewska@is.pw.edu.pl)

##### 12:00–12:15: EMS2014-467

Multi-model ensemble projections for temperature and precipitation in Portugal

**Cristina Andrade**, João Santos

Instituto Politécnico de Tomar, Escola Superior de Gestão de Tomar, Área Interdepartamental de Matemática, Tomar, Portugal (c.andrade@ipt.pt), Centre for the Research and Technology of Agro-Environmental and Biological Sciences, University of Trás-os-Montes e Alto Douro, Vila Real, Portugal

##### 12:15–12:30: EMS2014-518

Possible changes in evapotranspiration, air humidity and irrigation characteristics in Slovakia

**Milan Lapin**, Ingrid Damborská, Ján Hrvol', Martin Gera, Marián Melo

Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia (lapin@fmph.uniba.sk)

##### 12:30–12:45: EMS2014-292

Changes in global ocean wave heights as projected using multimodel CMIP5 simulations

**Xiaolan L. Wang**, Yang Feng, Val R. Swail

Climate Research Division, Science and Technology Branch, Environment Canada, Toronto, Canada (xiaolan.wang@ec.gc.ca)

**12:45–13:00: EMS2014-616**

Decrease of future storminess partially compensates for sea level rise effect on water level maxima along the Mediterranean Sea coast

**Piero Lionello**, Dario Conte, Luigi Marzo, Luca Scarascia  
University of Salento, DISTEBA, Lecce, Italy  
(piero.lionello@unisalento.it), CMCC, Lecce, Italy

**END OF ORAL PROGRAMME UC2**

## Communication and Education

### CE4 Education

**Convener:** Tomas Halenka

**Lecture Room:** Tycho

**08:30–10:30**

**Chairperson(s):** Tomas Halenka

**08:30–08:45: EMS2014-626**

Sharing educational resources

**Tomas Halenka**

Charles University in Prague, Prague, Czech Republic  
(tomas.halenka@mff.cuni.cz)

**08:45–09:00: EMS2014-102**

Informal education and outreach at the Met Office

**Felicity Liggins**

Met Office, Exeter, United Kingdom  
(felicity.liggins@metoffice.gov.uk)

**09:00–09:30: EMS2014-642**

The outreach of the Eumetcal Project, the European network supporting the meteorological training in Europe (solicited)

**Alessandro Chiariello**, Tero Siili  
Finnish Meteorological Institute

**09:30–09:45: EMS2014-398**

A crowd-based approach to the production of educational material for young disabled scientists

**Tony Dart**

LTD Seeing Ear, United Kingdom  
(tony@seeingear.org)

**09:45–10:00: EMS2014-71**

Climate Literacy and Curriculum development for Climate-Change Education

**Yukimasa Tsubota**

Meteorological Laboratory, J. F. Oberlin University, Tokyo, Japan (tsubota@obirin.ac.jp)

**10:00–10:15: EMS2014-625**

New ECTOM - European catalogue of training opportunities in meteorology

**Tomas Halenka**, Michal Belda

Charles University in Prague, Prague, Czech Republic  
(tomas.halenka@mff.cuni.cz)

**10:15–10:30: EMS2014-11**

We meteorologists cannot escape probabilities!

**Anders Persson**

Swedish Meteorological Society, Norrköping, Sweden  
(andersoscar.persson@gmail.com)

**END OF ORAL PROGRAMME CE4**

## The Atmospheric System and its Interactions

### ASI2 Meteorology, climate and space weather: science, applications and coordination

**Convener:** Mauro Messerotti

**Co-Conveners:** Annika Seppälä; David R. Jackson; Suzy Bingham

**Lecture Room:** Nadir

**08:30–10:30**

**Chairperson(s):** David Jackson

**08:30–09:00: EMS2014-652**

Challenges in extending meteorological operations to space weather (solicited)

**Jérôme Lafeuille**, Terry Onsager

World Meteorological Organization (WMO-OMM) Chief, Space-based Observing System Division  
(jlafeuille@wmo.int)

**09:00–09:30: EMS2014-521**

Large scale circulation in connection with the solar cycle forcing

**Petr Pisoft**, Aleš Kuchař, Petr Šácha

Charles University in Prague, Faculty of Mathematics and Physics, Department of Meteorology and Environment Protection, Czech Republic  
(petr.pisoft@mff.cuni.cz)

**09:30–10:00: EMS2014-320**

Equatorial Circulation Changes in the Mesosphere and Lower Thermosphere during Stratospheric Sudden Warming Events

**Toshihiko Hirooka**, Tsuyoshi Ohata, Koki Iwao, Nawo Eguchi

Department of Earth and Planetary Sciences, Kyushu University, Fukuoka, Japan  
(hirooka@geo.kyushu-u.ac.jp)

**10:00–10:30: EMS2014-194**

Response of the lower atmosphere to changes in the global atmospheric electric circuit associated with solar wind variability

**Mai Mai Lam**, Gareth Chisham, Mervyn P. Freeman

British Antarctic Survey, Climate (Space Weather), Cambridge, United Kingdom (mml@bas.ac.uk)

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** Mauro Messerotti

**11:30–12:00: EMS2014-575**

Influence of space weather on atmospheric electricity and water cycle

**Vladimir Chukin**, Ulugbek Shermuhamedov, Muthanna Al-Tameemi  
Russian State Hydrometeorological University,  
Saint-Petersburg, Russian Federation  
(chukin@meteolab.ru)

**12:00–12:15: EMS2014-503**

The equatorial lower ionosphere like indicator of solar activity and tropical cyclone action

**Liudmila Vanina-Dart**  
Space Research Institute, Moscow, Russia  
(vandart@seeingear.org)

**12:15–12:30: EMS2014-485**

The landing hurricanes influence to ionosphere

**Liudmila Vanina-Dart**  
Space Research Institute, Moscow, Russia  
(vandart@seeingear.org)

**12:30–13:00: Concluding remarks****END OF ORAL PROGRAMME ASI2**

## **ASI5/CE7 Biometeorology (co-organized)**

**Convener:** Andreas Matzarakis

**Co-Convener:** Tanja Cegnár

**Lecture Room:** Taurus

**08:30–10:30**

**Chairperson(s):** Panagiotis Nastos

**08:30–08:45: EMS2014-13**

Review of recent results in modeling heat - mortality relation in Belgrade (Serbia)

**Gorica Stanojević**, Vlasta Kokotović, Jelena Stojilković, Aleksandra Spalević, and Yaroslav Vykylyuk  
Geographical Institute "Jovan Cvijić" of the Serbian Academy of Sciences and Arts, Belgrade, Serbia

**08:45–09:00: EMS2014-351**

Contrasting patterns of hot spell effects on morbidity and mortality for cardiovascular diseases in the Czech Republic, 1994-2009

**Hana Davidkovová**, Jan Kyselý, Eva Plavcová, Jan Kynčl, Bohumír Kříž  
Institute of Atmospheric Physics AS CR, Prague, Czech Republic (davidkov@ufa.cas.cz), Faculty of Science, Charles University, Prague, Czech Republic

**09:00–09:15: EMS2014-349**

Spatial patterns of links between temperature extremes and cardiovascular mortality and morbidity in the Czech Republic

**Ales Urban**, Katrin Burkart, Jan Kyselý  
Institute of Atmospheric Physics AS CR, Prague, Czech Republic (urban@ufa.cas.cz, kyselý@ufa.cas.cz), Faculty of Science, Charles University, Prague, Czech Republic

**09:15–09:30: EMS2014-281**

Towards a Weather Forecast for Migraine Sufferers  
**Tija Sile**, Liga Bekere, Daiga Cepite-Frisfelde, Uldis Bethers

University of Latvia, Laboratory for Mathematical Modelling of Environmental and Technological Processes, Riga, Latvia (tija.sile@lu.lv)

**09:30–09:45: EMS2014-321**

Quantification of sleep disturbance by nighttime temperature rise for assessment by DALY

**Tomohiko Ihara**, Yuya Takane, Yutaka Genchi  
The University of Tokyo, Kashiwa, Japan  
(ihara-t@k.u-tokyo.ac.jp)

**09:45–10:15: Presentation poster (each 5 minutes)****10:15–10:30: Discussion Biometeorology****END OF ORAL PROGRAMME ASI5/CE7**

## **ASI6 Atmospheric measurements from the local to the regional scale: Concepts, new technologies and scientific progress**

**Convener:** Frank Beyrich

**Co-Convener:** Fred C. Bosveld

**Lecture Room:** Leo + Virgo

**08:30–10:30**

**Chairperson(s):** F. Bosveld

**Wind and Turbulence****08:30–08:45: EMS2014-588**

Capabilities of Doppler SODAR and Doppler Lidar for the Derivation of Turbulence Parameters

**Hans-Juergen Kirtzel**, Gerhard Peters, Bram van Kesteren  
Metek GmbH, Elmshorn, Germany

**08:45–09:00: EMS2014-184**

Use of a Doppler wind lidar for estimating a combination of wind measurements and turbulence parameters

**Bram van Kesteren**, Frank Beyrich  
Meteorological Observatory Lindenberg - Richard Aßmann Observatory, German Meteorological Service (DWD), Lindenberg, Germany

**09:00–09:15: EMS2014-277**

Comparison of three-dimensional wind measurements by wind-lidars and a sonic anemometer

**Ebba Dellwik**, Jakob Mann, Mikael Sjöholm, Nikolas Angelou, Torben Mikkelsen  
DTU, Wind Energy Department, Roskilde, Denmark  
(ebde@dtu.dk)

**09:15–09:30: EMS2014-216**

In-Situ Turbulence Measurements With Unmanned Research Aircraft in the Atmospheric Boundary Layer  
**Jens Bange**, Norman Wildmann  
University of Tübingen, Centre for Applied Geoscience, Tübingen, Germany (jens.bange@uni-tuebingen.de)

**09:30–09:45: EMS2014-510**

A thorough comparison of simultaneous observations of the temperature structure parameter by scintillometers, sonics and unmanned aircraft  
Miranda Braam, **Frank Beyrich**, Arnold Moene, Bram van Kesteren, Jens Bange, Andreas Platis, Sabrina Martin, Björn Maronga  
Deutscher Wetterdienst, Meteorologisches Observatorium Lindenberg, Tauche - OT Lindenberg, Germany (frank.beyrich@dwd.de)

**09:45–10:00: EMS2014-224**

Airborne Measured Spatially Resolved Turbulent Structure Parameters of Temperature and Moisture Above a Flat but Heterogeneous Surface  
**Jens Bange**, Andreas Platis  
University of Tübingen, Centre for Applied Geoscience, Tübingen, Germany (jens.bange@uni-tuebingen.de)

**10:00–10:15: EMS2014-499**

Sampling the atmospheric boundary layer on a moving platform; wind observations derived from hot air balloon flights.  
**Cisco de Bruijn**, Siebren de Haan  
Royal Netherlands Meteorological Institute (KNMI), Weather Research, De Bilt, Netherlands (cisco.de.bruijn@knmi.nl)

**10:15–10:30: Poster Introduction**

**10:30 Coffee Break & Poster Sessions**

**11:30–13:00**

**Chairperson(s):** J. Bange

**Humidity, Clouds and Precipitation**

**11:30–11:45: EMS2014-309**

Absolutely calibrated Raman lidar as a reference in atmospheric humidity profiling  
**Valentin Simeonov**  
EPFL, ISTE, EFLUM, Lausanne, Switzerland (valentin.simeonov@epfl.ch)

**11:45–12:00: EMS2014-308**

Kite/balloon born sensor-unit lift system for very high resolved micro meteorological profile measurements under field campaign conditions  
**Nils Hempelmann**, Christian Gurk, Frank Helleis, Walter Sauß, Verena Weiss, Franz X. Meixner  
Max Planck Institute for Chemistry, Mainz, Germany, (info@nilshempelmann.de), tiniaAnalyses, Hamburg, Germany

**12:00–12:15: EMS2014-259**

New optical package and algorithms for the accurate cloud cover estimation for short wave parameterization.  
**Mikhail Krinitskiy**, Alexey Sinitsyn, Sergey Gulev  
P.P.Shirshov Institute of Oceanology, RAS, SAIL, Moscow, Russian Federation (sinitsyn@sail.msk.ru)

**12:15–12:30: EMS2014-492**

PATTERN: Combining different radars for improved precipitation estimates  
**Marco Clemens**, Katharina Lengfeld, Claire Merker, Hans Münster, Felix Ament  
Meteorologisches Institut, Universität Hamburg, Germany

**12:30–12:45: EMS2014-379**

A Novel Method for Absolute Calibration of Radars  
**Claire Merker**, Katharina Lengfeld, Marco Clemens, Hans Münster, Ulrich Görsdorf, Felix Ament  
Meteorological Institute, University of Hamburg, Germany

**12:45–13:00: EMS2014-155**

Evaluating satellite-based diurnal cycles of precipitation in the African tropics  
**Uwe Pfeifroth**, Joerg Trentmann, Bodo Ahrens  
Deutscher Wetterdienst, Climate Monitoring, Offenbach, Germany, Goethe University Frankfurt, Institute for Atmospheric and Environmental Sciences, Frankfurt, Germany

**END OF ORAL PROGRAMME ASI6**

**Side Meetings & Workshops**

**SIM3 CORECLIMAX Capacity Building Workshop - Climate Services: Products and tools to make choices (public)**

**Convener:** Bob Su  
**Co-Convener:** Wim J. Timmermans  
**Lecture Room:** Aquarius

For details see page 79.

**08:30–14:00**

**Announcement of poster award recipient**

**Foyer, Exhibition and Poster Area**

**13:15–14:00**

## European Conference on Applied Climatology (ECAC)

### Understanding processes and climate change

#### UC2 Climate prediction and scenarios on decadal to centennial timescales

**Convener:** Christof Appenzeller

**Co-Conveners:** Clare Goodess; Jean-Pierre Céron; Martin Widmann

**Poster Area:** Meridian Left Back

**Attendance Time:** 10:30–11:30

##### LB6: EMS2014-125

Stochastic modelling of daily precipitation over complex topography consistent with the space-time covariance of present-day observations

**Denise E. Keller**, Andreas M. Fischer, Christoph Frei, Mark A. Liniger, Christof Appenzeller, Reto Knutti  
Federal Office of Meteorology and Climatology  
MeteoSwiss, Zürich, Switzerland  
(Denise.Keller@meteoswiss.ch), Center for Climate Systems Modeling (C2SM), ETH Zurich, Switzerland

##### LB7: EMS2014-128

Projected changes in precipitation intensity and frequency over complex topography: a multi-model perspective

**Andreas Fischer**, Denise Keller, Mark Liniger, Jan Rajczak, Christoph Schär, Christof Appenzeller  
Federal Office of Meteorology and Climatology  
MeteoSwiss, Climate Services, Zurich, Switzerland  
(andreas.fischer@meteoswiss.ch)

##### LB8: EMS2014-172

Climate change scenarios over Switzerland: assessing the added value of dynamical downscaling

**Elias M. Zubler**, Andreas M. Fischer, Mark A. Liniger, Christof Appenzeller  
MeteoSwiss, Federal Office of Meteorology and Climatology, Zurich, Switzerland  
(elias.zubler@meteoswiss.ch)

##### LB9: EMS2014-476

Statistical downscaling of subdaily temperature and precipitation in the Bârlad catchment (Eastern Romania), by means of artificial neural networks

**Marius-Victor Birsan**, Alexandru Dumitrescu  
Meteo Romania, Department of Climatology,  
Bucharest, Romania (marius.birsan@gmail.com)

##### LB10: EMS2014-330

Validation of precipitation indices from ALARO-Climate RCM for 25 km and 6 km resolutions in the Czech Republic

**Stanislava Kliegrova**, Lucie Pokorna, Ladislav Metelka, Petr Stepanek, Radmila Brozkova, Ales Farda

Czech Hydrometeorological Institute, Czech Republic  
(stanislava.kliegrova@chmi.cz)

##### LB11: EMS2014-353

Relationships between circulation indices and precipitation in the Mediterranean in an ensemble of regional climate models

**Romana Beranová**, Santiago Beguería, Ladislav Gaál, Martin Hanel, Jan Kyselý  
Institute of Atmospheric Physics AS CR, Prague, Czech Republic (rber@ufa.cas.cz, kyselý@ufa.cas.cz),  
Dept. of Applied Mathematics, Technical University of Liberec, Czech Republic

##### LB12: EMS2014-593

Multi-Decadal Climate Information for Agricultural Planning in Southeastern South America

**Ángel G. Muñoz**, Lisa Goddard  
International Research Institute for Climate and Society (IRI). Earth Institute. Columbia University.  
Palisades, New York. USA  
(agmunoz@iri.columbia.edu)

##### LB13: EMS2014-60

Water vapor emission in the region 8-12.5 microns and its importance as a feedback of the climate change

**Elba E. Villanueva**, Victor M. Mendoza, René Garduño, Julián Adem  
Centro de Ciencias de la Atmósfera, UNAM, México  
(eevu@atmosfera.unam.mx)

##### LB14: EMS2014-400

Can feedback analysis be used to understand efficacy differences between radiative forcings?

**Michael Ponater**, Vanessa Rieger, Simone Dietmüller  
DLR-Institute for Physics of the Atmosphere,  
Oberpfaffenhofen, Germany

##### LB15: EMS2014-477

The deviation of semi-enclosed basin sea level from the global mean level: the case of Mediterranean and Black Sea during the 20th and 21st century.

**Luca Scarascia**, Piero Lionello  
CMCC, Lecce, Italy (luca.scarascia@cmcc.it)

##### LB16: EMS2014-646

A Framework for Regional Wind-Wave Climate Scenarios

**Jorge Perez**, Melisa Menendez, Paula Camus, Fernando J. Mendez, Inigo J. Losada  
Environmental Hydraulics Institute "IH Cantabria",  
Universidad de Cantabria, Spain

#### END OF POSTER PROGRAMME UC2



## UC3 Climate forecast verification

**Convener:** Pertti Nurmi  
**Co-Convener:** Caio Coelho  
**Poster Area:** Meridian Left Back  
**Chairperson(s):** NN  
**Attendance Time:** 10:30–11:30

### LB17: EMS2014-74

Evaluation of oceanic parameters from seasonal forecasts of the MPI-ESM coupled model  
**Sabrina Plagemann**, Kristina Fröhlich, Barbara Früh  
 Deutscher Wetterdienst, Offenbach, Germany  
 (sabrina.plagemann@dwd.de)

### LB18: EMS2014-325

Variability of air temperature in simulations of regional climate model ALADIN-Climate/CZ and driving model ARPEGE over Europe and dependence on the size of integration domain  
**Lenka Crhova**, Eva Holtanova, Jaroslava Kalvova  
 Charles University in Prague, Faculty of Mathematics and Physics, Department of Meteorology and Environmental Protection, Prague, Czech Republic  
 (crhoval@gmail.com)

## END OF POSTER PROGRAMME UC3

## Communication and Education

### CE4 Education

**Convener:** Tomas Halenka  
**Poster Area:** Meridian Right Back  
**Chairperson(s):** Tomas Halenka  
**Attendance Time:** 10:30–11:30

### RB1: EMS2014-165

Use of virtual research laboratory prototype in environmental education  
**Yulia Gordova**, Tamara Shulgina, Yulia Martynova  
 IMCES SB RAS, Tomsk, Russian Federation  
 (yulia@scert.ru)

### RB2: EMS2014-169

Education in Meteorology and Acoustic measurement methods  
**Armin Raabe**, Manuela Barth, Frank Weiße  
 Universität Leipzig, Institut für Meteorologie, Leipzig, Germany (RAABE@UNI-LEIPZIG.DE)

### RB3: EMS2014-512

Education for Pupils and People: The "Weather Museum" in Lindenberg  
 Bernd Stiller, **Frank Beyrich**  
 Wettermuseum e.V. Lindenberg, Herzberger Str. 21, 15848 Tauche - OT Lindenberg, Germany, Deutscher Wetterdienst, Meteorologisches Observatorium Lindenberg, Tauche - OT Lindenberg, Germany  
 (frank.beyrich@dwd.de)

## END OF POSTER PROGRAMME CE4

## The Atmospheric System and its Interactions

### ASI2 Meteorology, climate and space weather: science, applications and coordination

**Convener:** Mauro Messerotti  
**Co-Convener:** Annika Seppälä; David R. Jackson; Suzy Bingham  
**Poster Area:** Meridian Right Back  
**Chairperson(s):** Suzy Bingham  
**Attendance Time:** 10:30–11:30

### RB4: EMS2014-55

The 11-yr solar cycle in MERRA reanalysis and CCM SOCOL v3.0  
**Michal Kozubek**, Peter Krizan, Eugene Rozanov  
 Institute of Atmospheric Physic, Prague, Czech Republic (kozubek.michal@ufa.cas.cz)

### RB5: EMS2014-531

Possible link between solar activity and tropospheric circulation over Europe  
**Hana Kopolková**, Radan Huth  
 Slovak Hydrometeorological Institute, Bratislava, Slovakia

### RB6: EMS2014-497

The tropical cyclones influence to Australian ionosphere in 2011-2014 years  
**Liudmila Vanina-Dart**, Tony Dart, Sharkov Evgenij  
 Space Research Institute, Moscow, Russia  
 (vandart@seeingear.org)

## END OF POSTER PROGRAMME ASI2

### ASI5/CE7 Biometeorology (co-organized)

**Convener:** Andreas Matzarakis  
**Co-Convener:** Tanja Cegnar  
**Poster Area:** Meridian Right Back  
**Chairperson(s):** Dominik Fröhlich  
**Attendance Time:** 10:30–11:30

### RB7: EMS2014-291

Verification of the CHMI's Biometeorological Forecast with Use of Medical Data from Emergency Medical Service in Ústí nad Labem  
**Martin Novak**  
 Czech Hydrometeorological Institute, Regional Branch in Usti n.L., Kockovska 18, 400 11 Usti n.L., Czech Republic (novakm@chmi.cz), Charles University in Prague, Faculty of Science, Department of Physical Geography and Geoecology, Albertov 6, 128 43 Praha 2, Czech Republic

**RB8: EMS2014-295**

Influence of atmospheric conditions in RSV infection in Portugal

Marinela Santos, Joana Soares, **João Andrade**

**Santos**, Ana Dias, Márcia Quaresma

Centre for the Research and Technology of

Agro-environmental and Biological Sciences, CITAB,

Universidade da Trás-os-Montes e Alto Douro, UTAD,

Vila Real, Portugal (jsantos@utad.pt)

**RB9: EMS2014-61**

Numerical simulations of outdoor heat stress maps in the 23 wards of Tokyo, Japan

**Yukitaka Ohashi**, Yukihiro Kikegawa, Tomohiko Ihara, Nanami Sugiyama

Okayama University of Science, Okayama City,

Okayama, Japan (ohashi@big.ous.ac.jp)

**RB10: EMS2014-116**

Assessment of human thermal bioclimatic conditions in complex micro environments within the Athens University Campus, Greece

**Iliana D. Polychroni**, Panagiotis T. Nastos

Laboratory of Climatology and Atmospheric

Environment, Faculty of Geology and Geoenviroment,

National and Kapodistrian University of Athens,

University Campus, GR 15784 Athens, Greece

(nastos@geol.uoa.gr)

**RB11: EMS2014-307**

A projection of the rural and urban human thermal comfort in the Netherlands

**Roy Molenaar**, Bert Heusinkveld, Gert-Jan Steeneveld

Wageningen University, Meteorology and Air Quality

Section, Wageningen, Netherlands

(gert-jan.steeneveld@wur.nl)

**END OF POSTER PROGRAMME ASI5/CE7**

## **ASI6 Atmospheric measurements from the local to the regional scale: Concepts, new technologies and scientific progress**

**Convener:** Frank Beyrich

**Co-Convener:** Fred C. Bosveld

**Poster Area:** Meridian Right Back

**Chairperson(s):** F. Beyrich

**Attendance Time:** 10:30–11:30

**RB12: EMS2014-430**

The evapotranspiration determined by scintillometry, Bowen Ratio/Energy Balance and aerodynamic method over agricultural fields in Central Europe

**Gabriela Pozníková**, Milan Fischer, Matěj Orság,

Zdeněk Žalud, Miroslav Trnka

Global Change Research Centre AS CR, v.v.i.,

Department of Climate Change Impacts on

Agroecosystems, Brno, Czech Republic

(g.poznikova@gmail.com), Mendel University in Brno,

Department of Agrosystems and Bioclimatology, Brno,

Czech Republic

**RB13: EMS2014-227**

Flux-Gradient Technique with Ammer Valley Surface Layer Measurement Network

**Joe Smith**, David Tupman, Jens Bange

Environmental Physics, University of Tübingen,

Germany (david-james.tupman@uni-tuebingen.de)

**RB14: EMS2014-121**

Micrometeorology at a scale of a lysimeter

**Armin Raabe**, Manuela Barth, Michael Wilsdorf,

Johanna Redelstein, Falk Kaiser

Universität Leipzig, Institut für Meteorologie, Leipzig,

Germany (RAABE@UNI-LEIPZIG.DE)

**RB15: EMS2014-153**

Estimation of surface albedo in the Brazilian Amazon using high spatial resolution satellite imagery

**Gabriel de Oliveira**, Elisabete Caria Moraes, Yosio

Edemir Shimabukuro, Thiago Veloso dos Santos

National Institute for Space Research, Remote

Sensing Division, Brazil (gdo@dsr.inpe.br)

**RB16: EMS2014-514**

A one year comparison of 482 MHz wind profiler radar and 1.55  $\mu$ m Doppler Lidar wind measurements

**Eileen Päscheke**, Ronny Leinweber, Volker Lehmann

Deutscher Wetterdienst, Meteorologisches

Observatorium Lindenberg, Tauche - OT Lindenberg,

Germany

**RB17: EMS2014-67**

Microbarograph measurements in the Czech Republic.

Seasonal and diurnal variability of pressure

fluctuations in the infrasound frequency range

**Tereza Sindelarova**, Michal Kozubek, Peter Krizan

Institute of Atmospheric Physics ASCR, Prague 4,

Czech Republic (tersin@ufa.cas.cz)

**RB18: EMS2014-223**

Estimation of the structure characteristic of refractive index of air from coherent Doppler lidar data

Viktor Banakh, Igor Smalikho, **Stephan Rahm**

Institute for Atmospheric Physics, German Aerospace

Center (DLR)

**RB19: EMS2014-601**

Determination of the atmospheric boundary-layer height over Sofia based on lidar and radiosoundings data

Orlin Gueorguiev, Nikolay Kolev, Tsvetina Evgenieva,

Evgeni Donev, Plamen Savov, **Ekaterina**

**Batchvarova**, Ivan Kolev

National Institute of Meteorology and Hydrology,

Bulgarian Academy of Sciences, Sofia, Bulgaria;

**RB20: EMS2014-459**

A high quality reprocessed GPS integrated water vapour dataset for atmospheric process studies, model evaluation and assimilation into HYMEX SOP reanalysis

**Olivier Bock**, Pierre Bosser, Rosa Pacione, Jose

Antonio Sanchez Sobrino, Mathieu Nuret, Nadia

Fourrie

IGN, LAREG, Univ Paris Diderot, Sorbonne Paris Cité,

Paris, France (olivier.bock@ign.fr)

**RB21: EMS2014-326**

Water-vapour variability over the mountainous island Corsica during the HyMeX field campaign  
**Norbert Kalthoff**, Bianca Adler, Martin Kohler, Jan Handwerker, Andreas Wieser, Ulrich Corsmeier, Christoph Kottmeier, Dominique Lambert, Olivier Bock  
 Institut für Meteorologie und Klimaforschung (IMK-TRO), Karlsruher Institut für Technologie (KIT), Karlsruhe, Germany

**RB22: EMS2014-103**

CONVECTION IN AMAZONIA: what is the role of large clearings to enhance the rainfall?  
**Gilberto Fisch**  
 Aeronautic and Space Institute, Atmospheric Science Division, São José dos Campos, Brazil  
 (fisch.gilberto@gmail.com)

**RB23: EMS2014-314**

Planetary Boundary Layer Dynamics: optical emission and space-time resolved spectroscopy  
 Adrian Timofte, Marius-Mihai Cazacu, Bogdan Albina, Georgiana Dascalu, Dan-Gheorghe Dimitriu,  
**Silviu-Octavian Gurlui**  
 "Alexandru Ioan Cuza" University of Iasi, Faculty of Physics, Atmosphere Optics, Spectroscopy and Lasers Laboratory, 11 Carol I Blvd., 700506 Iasi, Romania

**RB24: EMS2014-101**

Contribution and limitations of the MMR50 meteorological radar (X-band) regarding the crisis management of the Zlín Region  
**David Saur**  
 Thomas Bata University in Zlín, Czech Republic  
 (saur@fai.utb.cz)

**RB25: EMS2014-634**

Large-Eddy Simulation Study for Fetch Effect over Forest Canopy  
**Mei-Kuei Tu**, Annika Nordbo, Farah Kanani, Janne Rinne, Siegfried Raasch, Timo Vesala, Antti Hellsten  
 Department of Physics, University of Helsinki, Helsinki, Finland

**END OF POSTER PROGRAMME ASI6**

THE END

**SAVE THE DATE**

**15th EMS Annual Meeting & 12th ECAM**

**07 – 11 September 2015**

**Sofia, Bulgaria | Kempinski Hotel**

**First announcement and call for session proposals: *early December 2014***

**Call for abstracts: *February 2015***

**Submission deadline: *mid-April 2015***

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