

EMS Annual Meeting 2017

European Conference for Applied Meteorology and Climatology 2017

Serving Society with better Weather and Climate Information



PROGRAMME

Dublin | Ireland | 4–8 September 2017

Monday, 4 September 2017

	Gallery	Blue Room	The Theatre	Business school 1	Business school 2
09:30-10:45			PSE1: Opening Session		
11:15-12:45	ES1.2: Hydrological risk outlook	UP1.7: Metrology for meteorology and climate	UP3.6: Global and regional reanalyses	UP2.3: Radiation, aerosols and clouds	OSA2.1: Applications of meteorology a. oceanogr.
14:00-16:00	PSE3: Harry Otten Prize - Finalists	UP1.7 (until 15:30) UP2.4	UP3.6	UP2.3	UP2.1: Ocean – atmosphere interactions
16:30-18:30	ES2.2: Communication of science	UP2.4: The cryosphere and its interactions	OSA3.3/ES1.5: Copernicus Climate Change Service	UP2.2: Air pollution from urban to global scales	UP2.6: Waves and storms (until 18:45)
18:30-19:30	Poster Session: Author-in attendance time for ES1.2, ES2.2, OSA1.12, OSA2.1, OSA3.3, UP1.7, UP2.1, UP2.2, UP2.3, UP2.4, UP2.6, UP3.6				"Time with the EMS President" (The Studio)
19:30-21:00	Ice breaker: Helix Foyers				

Tuesday, 5 September 2017

	Gallery	Blue Room	The Theatre	Business School 1	Business School 2
09:00-09:30			Keynote: Operational Systems & Applications		
09:45-10:45	UP3.3: Synoptic climatology	UP1.4: Towards a better understand. of wind gusts	OSA2.8/ES1.7	OSA1.12: Ground-based profiling networks for improving weather forecasts	UP2.5/OSA1.9: Meteorology, climate and space weather
11:15-13:00	UP3.3	UP1.4	Atmospheric effects on humans	OSA1.12	UP3.4: Paleoclimatology and historical climatol.
14:00-16:00	UP3.3 (until 14:45) UP3.2: Mid-latitude ..	OSA2.2: Reducing Weather Risks to Transport	OSA2.8/ES1.7	OSA1.12	UP3.4: Paleoclimatology and historical climatol.
16:30-18:00	UP3.2: .. atmospheric teleconnections	ES3.1: Education and training (until 18:15)	OSA2.8/ES1.7	OSA1.12	UP3.4
18:15-19:30			PSE4: Awards Session		

Wednesday, 6 September 2017

	Gallery	Blue Room	The Theatre	Business School 1	Business School 2
09:00-09:30			Keynote: Engagement with Society		
09:45-10:45	UP3.2	UP 1.6: Progress in measurement technology	OSA1.2: Forecasting, nowcasting and warning	OSA2.6: Energy Meteorology	OSA1.8/ES3.2: Forecast verification
11:15-13:00	OSA3.1: Climate monitoring	UP1.5: Atmospheric measurements	OSA1.2	OSA2.6	OSA1.8/ES3.2
14:00-16:00	OSA3.1	UP1.5	ES2.1: Communication and Media	OSA2.6	OSA1.8 (until 14:30) OSA1.7: Forecasters' Session
16:30-18:00	OSA3.1	UP1.5	ES2.1 (until 18:15)	OSA2.6	OSA2.4: Sub-seasonal-to-seasonal predictions
18:00-19:30	Poster Session: Author-in attendance time for: ES2.1, OSA1.2, OSA2.2, OSA2.4, OSA2.6, OSA2.8/ES1.7, OSA3.1, UP1.4, UP1.5, UP2.5/OSA1.9, UP3.2, UP3.3, UP3.4				

Thursday, 7 September 2017

	Gallery	Blue Room	The Theatre	Business School 1	Business School 2
09:00-09:30			Keynote Understanding Weather & Climate Proc.		
09:45-10:45	OSA1.6: Probabilist. and ensemble forecasting	UP1.1: Dynamical meteorology	ES1.3: Creating nat. and regional climate services	OSA2.6	OSA2.7/UP3.7: High-resolution precipitation
11:15-13:00	OSA1.6	UP1.1 (until 12:15) OSA1.1: Num. Aspects	ES1.3	OSA2.6	OSA2.7/UP3.7
14:00-16:00	OSA1.11: Cloud computing and data distribution	UP1.2: Atm. boundary-layer processes	ES1.4: Evaluation and quality assurance of CS	OSA1.3/ES1.1: Impact forecasting and impact	OSA2.7/UP3.7 unt. 15:00 OSA1.4
16:30-17:30	UP3.5: Phenology: observ., monitoring, modelling	UP1.2	UP3.1: Climate change detection, trends, variab.	OSA1.3/ES1.1	OSA1.4: Meteorol. obs. from GNSS & Copernicus satellites
17:30-18:30	Poster Session: Author-in attendance time for ES1.3, ES1.4, ES3.1, OSA1.1, OSA1.3/ES1.1, OSA1.4, OSA1.6, OSA1.11, OSA2.7/UP3.7, UP1.1, UP1.2, UP3.1 (1), UP3.5				
20:00-22:30	The EMS Festa: Café en Seine				

Friday, 8 September 2017

	Gallery	Blue Room	The Theatre	Business School 1	Business School 2
09:00-10:30	OSA2.5: Agricultural Meteorology	OSA1.10: The WRF Model	UP3.1: Climate change detection, trends, variab.	OSA1.3/ES1.1 (until 9:30) UP1.3: Atm. hazards	OSA3.4/ES1.6: Actionable inform. from climate pred.
10:30-11:30	Poster Session & coffee break: Author-in attendance time for OSA1.5, OSA1.10, OSA2.5, OSA3.2, OSA3.4/ES1.6, UP1.3, UP3.1 (2)				
11:30-13:00	OSA2.5	OSA1.10 (until 12:30) OSA1.5: Data assimilation	UP3.1	UP1.3: Understanding & modelling of atm. hazards	OSA3.2: Spatial Climatology
14:00-16:00	OSA2.5	OSA1.5	UP3.1	UP1.3	OSA3.2
16:15	Small reception, announcement poster award winner 2017, closing: Helix Foyer				

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SERVING SOCIETY WITH BETTER WEATHER AND CLIMATE INFORMATION

Dear participants, welcome to the EMS Annual Meeting 2017 in Dublin.

Under this year's theme the conference explores a key challenge for the meteorological and climatological communities, namely how best to harness the wealth of data now available – both observational and modelled – to generate and communicate effectively tailored and timely information, ensuring the highest-quality support for users' decision making.

This is relevant for the whole spectrum of users: from specific user groups such as the emergency management agencies, local planners and enterprises that are weather sensitive, to individual members of the general public. Realising the value of meteorological and climate information to government, industry, and all sectors of society is the focus of this conference.

Challenging times require new responses: the programme

You may have noticed the new framework of the session programme: six programme groups have been restructured into three main programme streams with the aim to better facilitate interactions and convergence of science branches, applications, and actors – the core objective of the EMS Annual Meetings.

Atmospheric sciences and their actors – NMHSs, research organisations, the private sector, consultants, manufacturers as well as scientists advising on climate change assessment, adaptation and mitigation, etc. – are more and more closely involved with a broad range of authorities, practitioners, and decision makers within various societal and economic sectors where immediate impacts and long-term climatic changes are becoming mixed.

Therefore the Programme and Science Committee has developed the new framework that highlights the core purposes, channels, and challenges of meteorological and climatological research and applications and thus offers better opportunities for cooperation and multidisciplinary.

The **session programme** includes 330 poster and 500 oral presentations in 47 sessions. Both, poster and oral presentations are important for the conference – they offer diverse opportunities for discussions and the presentation of the authors' work.

Side meetings, workshops and the social programme will provide many opportunities for networking at the conference. Make ample use of these – this is the *raison d'être* of the meetings.

Detailed and up-to-date information about the session programme is available through the EMS2017-app for mobile devices.

The exhibition – use the opportunity

The conference will also feature a small exhibition involving manufacturers of meteorological instruments, research projects, a publisher and NGOs. It 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 organisations.

Weather briefing, Conference TV, etc.

Throughout the week daily weather forecast briefings by Met Éireann forecasters are given in the foyer. In addition, InVision Communications, will be filming some of the sessions on site, with some of the footage shown during the week in the foyers, together with films on research at various research institutions.

Thank you

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

Building the session programme would not have been possible without the work of the convenors and the Programme and Science Committee who developed and promoted the sessions. Sincere thanks to all of them for their commitment and hard work! We hope you will enjoy and benefit from the wealth of research, results and applications that will be presented and discussed during the week.

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

Horst Böttger
EMS President

Declan Murphy
IMS President

Eoin Moran
Director Met Éireann

General information

About this programme book

The EMS aims to make the Annual Meeting more sustainable and minimize the use of resources. During the abstract submission, authors were asked to indicate whether a printed programme book is needed. 70% of the authors indicated that they would not need a programme book any more. Thus, only a limited number of programme books is available on request.

Please be aware that the mobile app (continuous updates) and the EMS2017 website offer the option of generating and printing your own personal programme.

Venue

The EMS Annual Meeting: European Conference for Applied Meteorology and Climatology 2017 is held in Dublin, Ireland, from 4 to 8 September 2017.

The Helix, DCU
Collins Avenue
Dublin 9
Ireland

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 or set them in mute mode during the sessions.
- Please note that video-graphic recordings are not allowed.

Official language

The official language of the conference 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 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.

Photos and Conference TV

Parts of the EMS Annual Meeting 2017 will be recorded. Photos of conference events are taken by Alan Rowlette. Mainly the plenary and poster sessions will be covered.

InVision Communications, a global TV production company, has partnered with the EMS to produce the official broadcast for the EMS Annual Meeting 2017 in Dublin. Mainly the plenary sessions Monday to Wednesday will be filmed.

By registering, participants acknowledge and consent that during their attendance at the EMS Annual Meeting 2017 their image or voice may be recorded via video, photograph, or by any other means ("recorded") by an

official of the conference or designated staff. This material may be distributed or published at the discretion of the European Meteorological Society. If you do not wish to be recorded, you are required to formally advise the EMS Secretariat in advance.

Videos from ICB in Durham: The 21st International Congress of Biometeorology (ICB) takes place in Durham, UK, from 3 to 7 September 2017, the same week as the EMS 2017. As biometeorology is a relevant topic also at the EMS2017 in Dublin, video footage for some of the presentations given at the ICB and at the EMS respectively will be exchanged. Please see the daily "Today's Specials" for details.

Cover picture

The cover picture has kindly been provided by the Irish Meteorological Society. Madeleine Weber submitted the picture 'Hail Shower' to the IMS photo competition 2012.

Local transportation information

From the airport

Dublin Airport is approximately 7 km north of The Helix and only 12 km from Dublin city centre and is serviced by Air coach, Airlink and Dublin Bus among others.

From the city centre

Note that there are a number of different bus stops around the DCU Glasnevin campus, served by different bus routes. The most relevant bus routes from the city centre are 4, 9, 11, 13 and 44. 44 is the only one that stops directly at the entrance to The Helix (but runs only every 20 to 40 minutes).

Busroutes

- stopping at **DCU Helix:** 44, 104: (**44 is the only one directly from the city centre**)
- stopping **outside the University at Ballymun Road entrance:** 4, 9, 11, 13
- stopping **outside the University at Collins Avenue Extension entrance:** 109a (Kells), 126 (Naas)
- stopping at the **Whitehall stop** near the intersection of the Swords Road and Collins Avenue Extension: 1, 16, 41, 41a,b,c, 33 [12-15 minute walk from Whitehall bus stop to the Helix]

General remark on bus timetables

To get information on bus time tables you need to know the number of a bus stop.

4, 9, 11, 13	Ballymun Road (Stop # 37/4680)
17a	Ballymun Road (Stop # 92 /128)
44, 104	DCU Helix (Stop # 7571)
1, 16, 41, 41a,b,c, 33	Swords Road (Stop # 205/213)
109a (Kells), 126 (Naas)	Collins Ave (Stop # 135021)

Time tables are available from
<https://www.dublinbus.ie/DublinBus-Mobile/Timetables/>

For real time departures mobile apps are provided by dublinbus.ie, the national journey planner at transportforireland.ie, or at <https://moovitapp.com>.

Bus tickets

Tickets for the Dublin Bus are available from the driver. The ticket price depends on the number of stops. An alternative to single tickets is the "Leap Visitor Card", available at the airport, at Dublin Bus customer desk in 59 Upper O'Connell Street, or many shops in the city centre.

The Leap Visitor Card allows unlimited travel after first use for the chosen period (24 hours – €10; 72 hours – €19.50; or 168 hours – €40).

Note that tickets must always be validated (single as well as leap cards) when boarding a bus.

Bus transfer to the airport on Friday

On Friday, 8 September 2017, a bus transfer will be provided from the conference centre to the Dublin airport. Please ask at the information desk for more information and the time table.

Wireless network access

DCU provides free WiFi access without any password. The network is "DCU-Guest-Wifi".

Registration & information desk

The registration & information desk is located in the foyer of the conference centre on the ground floor.

Opening hours

Sunday, 3 September 2017
15:00–18:00

Monday–Thursday, 4–7 September 2017
08:00–18:00

Friday, 8 September 2017
08:00–12:00

Registration & abstract management

Copernicus Meetings
Bahnhofsallee 1e
37081 Göttingen, Germany
Phone: +49-551-900339-22
meetings@copernicus.org
www.copernicus.org

BAMS Digital Edition

The American Meteorological Society offers 3-months access to the BAMS Digital Edition for all student registrations at the EMS2017. Young scientists who would like to receive a code for 3-months access to BAMS Digital Edition, will have to agree to have their email address forwarded to the AMS (tick the relevant box during the registration process).

EMS Sustainable Meetings Policy

The EMS Council at its session in March 2015 approved the EMS Sustainable Meetings Policy, which includes actions as well as recommendations for collaborating organisations and participants. It covers a variety of areas such as travel activities with their impact on the climate, consumption of resources (energy, water, paper etc.) and considerations about reduction and minimisation of waste. For details on actions and recommendations consult:

<http://www.emetsoc.org/meetings-events/ems-annual-meetings/future-venues/sustainablemeetings>.

Specifically, this programme book has been printed on recycled paper; the lanyard is made of recycled PET. We kindly ask you to return the name badge with the lanyard at the registration counter when leaving the conference centre.

Also the Festa menu is all-vegetarian, considering the effect on the climate through meat production.



EMS2017 app

Download the EMS2017 app for iPhones and Android smartphones.

The EMS2017 app provides the complete programme, including all abstracts. You can synchronise your personal programme and the latest updates are always included. You have the option to contact authors of specific contributions directly via the app and use the built-in Twitter interface for posting tweets. The EMS2017 hashtag is #emsannual2017.

Conference hours

Oral and poster sessions

Monday, 4 September 2017

Opening:	09:30–10:45
Oral block 2:	11:15–12:45
Oral block 3:	14:00–16:00
Oral block 4:	16:30–18:30
Poster session:	18:30–19:30
Icebreaker reception:	19:30–21:00

Tuesday, 5 September 2017

Keynote lecture:	09:00–09:30
Oral block 1:	09:45–10:45
Oral block 2:	11:15–13:00
Oral block 3:	14:00–16:00
Oral block 4:	16:30–18:00
Awards session:	18:15–19:30

Wednesday, 6 September 2017

Keynote lecture:	09:00–09:30
Oral block 1:	09:45–10:45
Oral block 2:	11:15–13:00
Oral block 3:	14:00–16:00
Oral block 4:	16:30–18:00
Poster session:	18:00–19:30

Thursday, 7 September 2017

Keynote lecture:	09:00–09:30
Oral block 1:	09:45–10:45
Oral block 2:	11:15–13:00
Oral block 3:	14:00–16:00
Oral block 4:	16:30–17:30
Poster session:	17:30–18:30

Friday, 8 September 2017

Oral block 1:	09:00–10:30
Poster session:	10:30–11:30
Oral block 2:	11:30–13:00
Oral block 3:	14:00–16:00
Announcement of poster award recipient	16:15–17:00

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

Poster sessions

Posters are located in the foyers of the first (poster boards 42–141) and second (poster boards 1–41) floors.

Display and dismantling times

Display Time 1: Monday 9:00 – Tuesday 12:00
 Display Time 2: Tuesday, 13:00 – Wednesday, 19:30
 Display Time 3: Thursday, 9:00 – Friday 16:00.
 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 (and the poster award committee) to view their posters at any time within the display days.
 Authors are also asked to take their posters down on Tuesday between 12:00 and 12:30 (display time 1), on Wednesday between 19:30 and 20:00 (display time 2), and on Friday between 16:00 and 16:30 (display time 3). Posters that have not been removed within this dismantling time will be removed and disposed of

Poster pitches

For most sessions time for such poster pitches is foreseen during the oral programme. For details, please check the programme of your session, on the website, in the EMS2017-app, or on page 6. Prepare one or two slides for this purpose. You may also be asked ad hoc by the session chair for a summary presentation in case a gap should occur in the oral programme.

Author-in-attendance times (Poster sessions)

Monday, 18:30–19:30
 Wednesday, 18:00–19:30
 Thursday, 17:30–18:30
 Friday, 10:30–11:30 (poster session & coffee break)

Outstanding Poster Award

The EMS announces an Outstanding Poster Award to highlight high quality poster presentations at the EMS Annual Meetings. All posters on display will be screened. The selection of the outstanding poster will be based on the following criteria:

- Scientific quality
- Innovation in approach
- Potential impacts of the results
- Presentation aspect, including clarity of the message to readers of your poster

The selection committee consists of the following senior scientists:

- Ingeborg Auer, Austria
- Frank Beyrich, Germany
- Jennifer Rourke, United Kingdom
- Saji Varghese, Ireland
- Saskia Willemse, Switzerland (chair)

Award

The author(s) will receive a certificate and one registration fee waiver for the EMS Annual Meeting 2018 in Budapest where the award will be handed over, and the poster(s) will be highlighted on the EMS website as an example of best practice.

The recipient of the award will be announced on Friday, 8 September 2017, 16:15, in the Helix foyer.

Refreshment breaks**Coffee breaks**

Free coffee/tea will be served during the coffee breaks. Catering stations are located

- The Helix: foyers first and second floor
- Business School: foyer on the ground floor (Monday afternoon, Tuesday to Thursday)

Monday to Thursday

10:45–11:15 and 16:00–16:30

Friday

10:30–11:30

Lunch

Monday, 12:45–14:00
 Tuesday–Friday, 13:00–14:00

Cafes, restaurants and supermarkets are available on the DCU Campus. A map is available at the registration desk.

Weather briefings:

Location: The Helix foyer, first floor
 Dates and times: Monday to Friday, 10:50

Met Éireann will provide weather briefings every day during the morning coffee break (10:45–11:15). It is foreseen that one of these briefs is about space weather (in collaboration with the UK Met Office).

Poster pitches and author-in-attendance times

Session numbers and titles (abbreviated titles)	Poster pitches		Author-in-attendance
UP1 – Atmospheric processes and severe weather			
UP1.1 Dynamical meteorology	Thu, 12:00	Blue Room	Thursday
UP1.2 Atmospheric. boundary-layer processes	Thu, 14:00	Blue Room	Thursday
UP1.3 Understanding and modelling of atm. hazards	Fri, 09:30	Business s. 1	Friday
UP1.4 Towards a better understanding of wind gusts	Tue, 11:15	Blue Room	Wednesday
UP1.5 Atmospheric measurements	Wed, 15:45	Blue Room	Wednesday
UP1.6 Progress in measurement technology			no posters
UP1.7 Metrology for meteorology and climate	Mon, 11:15	Blue Room	Monday
UP2 – Interactions within the Earth System			
UP2.1 Ocean – atmosphere interactions	Mon, 14:00	Business s. 2	Monday
UP2.2 Air pollution from urban to global scales	Mon, 16:30	Business s. 1	Monday
UP2.3 Radiation, aerosols and clouds	Mon, 15:15	Business s.1	Monday
UP2.4 The cryosphere and its interactions	Mon, 16:30	Blue Room	Monday
UP2.5/OSA1.9 Meteorology, climate and space weather	Tue, 12:45	Business s. 2	Wednesday
UP2.6 Waves and storms	Mon, 18:30	Business s. 2	Monday
UP3 – Climate modelling, analyses and predictions			
UP3.1 Climate change detection, trends, variability,	Thu, 17:15	The Theatre	Thu/Fri
UP3.2 Mid-latitude atmospheric teleconnections			
UP3.3 Synoptic climatology	Tue, 12:45	Gallery	Wednesday
UP3.4 Paleoclimatology and Historical Climatology	Tue, 17:45	Business s. 2	Wednesday
UP3.5 Phenology: obs., monitoring, modelling	Thu, 17:30	Gallery	Thursday
UP3.6 Global and regional reanalyses	Mon, 16:00	The Theatre	Monday
OSA1 – Operational systems			
OSA1.1 Numerical aspects & physical parametrizations	Thu, 12:15	Blue Room	Thursday
OSA1.2 Forecasting, nowcasting and warning systems			Wednesday
OSA1.3/ES1.1 Impact forecasting and impact	Thu, 17:15	Business s.1	Thursday
OSA1.4 Meteorological observations from GNSS	Thu, 15:00	Business s. 2	Thursday
OSA1.5 assimilation and use of observations	Fri, 10:15 (in OSA1.10)	Blue Room	Friday
OSA1.6 Probabilistic and ensemble forecasting	Thu, 11:15	Gallery	Thursday
OSA1.7 Forecasters' Session			no posters
OSA1.8/ES3.2 Forecast verification			Wednesday
OSA1.10 The WRF Model	Fri, 10:15	Blue Room	Friday
OSA1.11 Cloud computing and data distribution			Thursday
OSA1.12 Ground-based profiling networks			Monday
OSA2 – Applications of Meteorology			
OSA2.1 Applications of meteor./oceanog.i.t.coastal zone	Mon, 11:15	Business s. 2	Monday
OSA2.2 Reducing Weather Risks to Transport	Tue, 15:55	Blue Room	Tuesday
OSA2.4 Sub-seasonal-to-seasonal predictions	Wed, 18:00	Business s. 2	Wednesday
OSA2.5 Agricultural Meteorology	Fri, 10:15	Gallery	Friday
OSA2.6 Energy Meteorology	Wed, 17:15–18:00	Business s. 1	Wednesday
OSA2.7/UP3.7 High-resolution precipitation	Thu, 12:20–12:40	Business s. 2	Thursday
OSA2.8/ES1.7 Atmospheric effects on humans	Tue, 10:15–10:45	The Theatre	Tuesday
OSA3 – Applications of climate research			
OSA3.1 Climate monitoring	Wed, 17:45	Gallery	Wednesday
OSA3.2 Spatial Climatology	Fri, 10:15 (in OSA3.4)	Business s. 2	Friday
OSA3.3/ES1.5 Copernicus Climate Change Service	Mon, 16:45	The Theatre	Monday
OSA3.4/ES1.6 Actionable information from climate pred.	Fri, 10:15	Business s. 2	Friday
ES1 - Bringing Benefits to Society			
ES1.2 Hydrological risk outlook			no posters
ES1.3 Creating nat. and regional climate services	Thu, 14:00 (in ES1.4)	The Theatre	Thursday
ES1.4 Evaluation and quality assurance of CS	Thu, 14:00	The Theatre	Thursday
ES2 - Communication with and within Society /			
ES3 - Education & Training			
ES2.1 Communication and Media	Wed, 15:50	The Theatre	Wednesday
ES2.2 Communication of science	Mon, 18:30	Gallery	Monday
ES3.1 Education and training			Tuesday
Session numbers and titles	Poster pitches		Author-in-attendance

Receptions and social events

Icebreaker reception

Location: Conference Foyer

Date: Monday, 4 September 2017, 19:30–21:00

The Met Éireann choir, **'The Isobars'** is a recently-formed choir based at Met Éireann HQ in Glasnevin, Dublin. Since early 2017, serving and retired staff members who share a love of singing have joined from all divisions of the organisation. The choir's repertoire includes pop and folk songs, some of which have a weather theme!

EMS Festa

Location: Café en Seine, 40 Dawson Street, Dublin 2

Date: Thursday, 7 September 2017, 20:00

By registration only (Deadline was 22 August 2017. Please check for spare tickets at the registration desk.)

Bus transfer: A bus transfer from the conference centre to the Café en Seine will be available.

Closing reception & announcement poster award winner 2017

Location: Conference Foyer

Date: Friday, 8 September 2017, 16:15–17:00

Publications

Paper publication in

Advances in Science and Research

Authors of contributions that have been accepted to one of the EMS Annual Meeting 2017 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.

Articles of *Advances in Science and Research* are included in the Conference Proceeding Citation Index (CPCI). The CPCI is part of Web of Science™ Core Collection which helps researchers access the published literature from the most significant conferences, symposia, seminars, colloquia, workshops, and conventions worldwide. This resource offers a complete view of conference proceedings and their impact on global research, providing cited reference search to track emerging ideas and new research beyond what is covered in the journal literature. Two editions cover the sciences and social sciences (see <http://thomsonreuters.com/en/products-services/scholarly-scientific-research/scholarly-search-and-discovery/conference-proceedings-citation-index.html>). All conferences (edition to edition) are evaluated individually regarding their inclusion.

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 under Creative Commons Attribution 4.0 License. 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: Sylvain Joffre (EMS Committee on Meetings)

Ingeborg Auer (EUMETNET Climate Programme)

Eric Bazile (Météo France)

Frank Beyrich (DWD)

Dick Blaauboer (EUMETNET)

Tanja Cegnar (Slovenian Environment Agency)

Christian Csekits (EUMETNET-WGCEF)

Renato R. Colucci (UMFVG)

Marie Doutriaux Boucher (EUMETSAT)

Renate Hagedorn (EMS Committee on Meetings)

Paul Halton (Irish Meteorological Society)

Gerald Fleming (Met Éireann)

Zoltan Dunkel (Hungarian Meteorological Society)

Tim Hewson (ECMWF)

André Jol (EEA)

Martina Junge (EMS)

Andrea Kaiser-Weiss (DWD)

Will Lang (MetOffice)

Peter Lynch (University College Dublin)

Pierre-Philippe Mathieu (ESA)

Ewen McCallum (EMS Committee on Meetings)

Andrea Montani (ARPA)

Manuel Palomares (EUMETNET)

Jennifer Rourke (MetOffice)

Dennis Schulze (MeteoGroup, PRIMET)

Gert-Jan Steeneveld (EMS Committee on Meetings)

Peter Thorne (Maynooth University)

Saskia Willemse (EMS Committee on Meetings)

Programme Stream Moderators

Engagement with Society (ES):

Ingeborg Auer

Tanja Cegnar

Operational Systems and Applications (OSA):

Gerald Fleming

Will Lang

Andrea Montani

Understanding Weather & Climate Processes (UP):

Frank Beyrich

Renate Hagedorn

Andrea Kaiser-Weiss

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 2018

Authors of contributions that have been accepted to one of the EMS Annual Meeting 2017 session topics are invited to submit short conference papers. Details will be sent to the authors by email after the conference.



EXCURSIONS

WEDNESDAY, 6 SEPTEMBER 2017

Excursion to Met Éireann Headquarters on Wednesday, 6 September 2017 (14:00–16:00)

Met Éireann, the National Meteorological Service of Ireland, and the Irish Meteorological Society, have organised a free excursion to Met Éireann Headquarters.

The main goal is to share knowledge about the following:

- Maintaining the weather observing networks deployed in Ireland and the climatological archive for Ireland
- Research work being undertaken by Met Éireann
- The operational challenges in producing and disseminating national weather forecasts and warnings in the Irish context

Explanations about scientific research and instrumental deployment projects will be given by local researchers, ICT developers and operational forecasters working at Met Éireann.

Intending participants must register for the event. Participants will walk from the Helix to Met Éireann, a distance of approx. 2 km. In the case of very bad weather conditions, umbrellas will be organised for the excursion.

Place of departure: the Plaza in front of the Helix Conference Centre.

Departure time: depart walking from the Helix at 13:30.

Excursion to Dunsink Observatory on Wednesday, 6 September 2017 (19:00–23:00)

The Irish Meteorological Society, local hosts, have organised a free excursion to the historic Dunsink Observatory which is within a half hour by bus from the Helix Conference Centre.

The programme at Dunsink Observatory on 6 September 2017 will include the following.

- Light refreshments served on arrival
- Viewing of the night sky, weather permitting
- A short introductory talk about the history of Dunsink Observatory
- A visit to the South Dome, where there will be a short talk about the Grubb Telescope
- Two lectures will be given as follows:

"Blowing in the Wind: from the surface of the Earth to other Galaxies"

By Jonathan Mackey, researcher at Dublin Institute for Advanced Studies

"Applications of High Performance Simulations in Science"

By Sam Green, PhD student at Dublin Institute for Advanced Studies

Participants will have an opportunity to look through the Grubb Telescope afterwards. Volunteers from the Irish Astronomical Society will assist with the use of their telescopes.

Intending participants must register for the event. Check-in for registered participants will start at 18:30 at the Helix Conference Centre. Participants will travel by bus from the Helix to Dunsink Observatory, a distance of 16.5 km (ca. half an hour by bus).

Place of departure: the bus stop in front of the Helix Conference Centre

Departure time: depart by bus from the Helix at 19:00

Registration deadline: 14 August 2017

Registration

To register

- Please follow the registration link on www.ems2017.eu/excursions
- Print off your e-ticket and show it to the excursion organisers at the Helix before departure

Waiting list: once the places for an excursion are reserved, a waiting list will be opened to fill places becoming available due to any cancellations. Upon a cancellation the next person on the waiting list will be notified with an email that they are allowed to register for the excursion.

Exhibition

Monday, 12:00–18:00, and Tuesday–Thursday, 09:00–18:00

Please use the opportunity to visit the exhibition in the conference foyer (the exhibitors are listed in alphabetical order):

ECMWF Copernicus

Shinfield Park
Reading RG2 9AX
United Kingdom



<http://atmosphere.copernicus.eu>

<http://climate.copernicus.eu>

<http://www.ecmwf.int>

Copernicus, the European Union's flagship for climate and atmospheric analysis: at our exhibition stand we provide an overview of how Copernicus is equipping society, policy makers and industry with free open data it offers to mitigate climate threats, adapt to change and capitalise on opportunities. The European Centre for Medium-Range Weather Forecasts (ECMWF) is operating two Copernicus services on behalf of the European Union: the Copernicus Atmosphere Monitoring Service (CAMS) and the Copernicus Climate Change Service (C3S).

ECMWF Copernicus is kindly sponsoring the conference.

Kipp & Zonen B.V.

Delftechpark 36
2628 XH Delft
The Netherlands



<http://www.kippzonen.com>

Kipp & Zonen, located in Delft, the Netherlands, is a world-leading manufacturer of top-quality solar monitoring instruments covering the entire solar spectrum from ultraviolet up to far infrared. We offer a complete range of measuring instruments, such as pyranometers, pyrhemometers, net radiometers, pyrgeometers, UV radiometers and sunshine duration sensors, from reliable and cost-effective to the most accurate, best performing instruments available. Our pyranometers, for example, are used in meteorological networks around the world.

Kipp & Zonen also offers a range of sun tracking systems: the SOLYS2 and the SOLYS Gear Drive sun trackers. SOLYS2 is the most widely used sun tracker around the world for meteorological applications. It has Baseline Surface Radiation Network (BSRN) levels of performance and reliability. SOLYS GD has enhanced capabilities that make it suitable for use with heavy loads and in the harshest climates.

Apart from single instruments we also provide complete measuring solutions, such as RaZON+, a turn-key system replacing a sun tracker, pyranometer and pyrhemometer, and containing built-in data logging. RaZON+ is an affordable extension of existing meteorological networks.

Furthermore, Kipp & Zonen has extensive know-how in the field of atmospheric science. Our in-house expertise and our close links with the scientific community have resulted in high-end solutions for the measurement of atmospheric properties such as stratospheric ozone, UV spectra and evapo-transpiration. Our range of atmospheric science instruments consists of the Brewer spectrophotometer, a range of large aperture scintillometers, among which an optical microwave scintillometer system, and a scientific solar monitoring station.

PRIMET Ltd

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United Kingdom

<http://www.primet.org>



Many people across Europe access their daily weather information through private sector companies that are not part of a publicly funded government meteorological service. These companies vary in size and are able to respond quickly to local needs and advances in technology. They form a vital link between the citizen taxpayer and the public sector organisations that gather global weather data and run large scale numerical models.

For this to work effectively there must be a good working relationship between the public and private sector within the European meteorological community. It is essential that information flows freely where 'open data' policies exist and that any commercial competition takes place on an equitable basis.

PRIMET is a pan European Trade Association for meteorological service providers operating in the private sector. It aims to promote a fair trading environment between the public and private sector in meteorology and its related disciplines.

PRIMET provides the channel of communication between the private sector in Europe and key organisations, including WMO, ECOMET, EUMETSAT, and ECMWF as well as the national meteorological and hydrological services.

Membership of PRIMET is open to private sector companies across Europe. Members benefit from a board of directors and secretariat that actively support their business interests by proactively monitoring data service quality and scenarios where unfair competition occurs with commercial services embedded within publicly-funded bodies. For more information see the PRIMET website, www.primet.org.

Springer Nature

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UKi Media & Events organises more than 20 highly specialised exhibitions and conferences and produces over 30 leading international magazines.

Our weather technology portfolio includes the Meteorological Technology International magazine and the Meteorological Technology World Expo, approaching its seventh anniversary in 2017 and by far the most comprehensive exhibition of world-class professional meteorological products and services.

Allied to the Meteorological Technology International magazine, still the only international publication dedicated to meteorological technology, our portfolio provides a unique forum for industry news, communication and debate.

Come to our stand and pick up your free copy of Meteorological Technology International, and speak to us about our next exhibition, taking place in Amsterdam for the first time, from 10 to 12 October 2017.

OPENING SESSION

MONDAY, 4 SEPTEMBER 2017

The Theatre

09:30–09:45 Opening ceremony

Opening by the EMS President

Horst Böttger

Welcome by the IMS President

Declan Murphy

Welcome by the Minister for
Housing, Planning and Local
Government

Eoghan Murphy

09:45–10:45 Strategic Lectures

Eoin Moran

Director General Met Éireann

Making Weather and Climate Understandable - a key to better societal outcomes

Petteri Taalas

WMO Secretary-General

Title: to be determined



Meet the EMS President

Monday, 4 September 2017, 18:30

The Studio

Horst Böttger, the outgoing EMS President has been leading the EMS Committee on Meetings from 2008 to 2014 when he became the 6th President of the EMS. His term ends this September.

A new President will be elected at the Council Session on 3 September 2017 and is expected to join Horst at this event.

Come along and discuss with Horst and his colleagues about what EMS does, should do, ...

Refreshments provided

PLENARY KEYNOTES

The Theatre

Keynote presentations related to each of the Programme Streams (PS) will be given on Tuesday, Wednesday and Thursday from 9:00 to 9:30.

Tuesday

Keynote Lecture on Operational Systems and Applications (OSA)

ECMWF's ensemble prediction: A strategic and challenging choice

By Florence Rabier

Director General, ECMWF

Wednesday

Keynote Lecture on Engagement with Society (ES)

Being as disciplined in our engagement with society as we are in our scientific research

By Keith L. Seitter

Executive Director, American Meteorological Society

Thursday

Keynote Lecture on Understanding Weather & Climate Processes (UP)

Effects of Arctic warming on mid-latitude weather and climate

By Timo Vihma

Head of Polar Meteorology and Climatology Group,
Finnish Meteorological Institute

AWARDS SESSION

TUESDAY, 5 SEPTEMBER 2017

The Theatre

18:15–19:30 AWARD CEREMONIES

YOUNG SCIENTIST TRAVEL AWARDS (YSTA)
OUTSTANDING POSTER AWARD 2016
EMS YOUNG SCIENTIST AWARD 2017
EMS OUTSTANDING CONTRIBUTION AWARD 2017
EMS MEDIA AWARDS
EMS TROMP AWARDS
2017 HARRY OTTEN PRIZE
EMS SILVER MEDAL

Young Scientist Travel Awards are given to support participation of outstanding students and young scientists at EMS-co-sponsored conferences. The award is given as travel expenses support. The recipients are selected by the EMS Awards Committee. For this year's recipients see page 15.

The **Outstanding Poster Award** has been established to highlight good-quality posters presented at the EMS Annual Meetings. The winners of the award 2016 are Julie Berckmans (1,2), Alexandra-Jane Henrot (3), Ingrid Jacquemin (3), and Rafiq Hamdi (1) by (1) the Royal Meteorological Institute, Department of Meteorological and Climatological Research, Uccle, Belgium, (2) Centre of Excellence PLECO (Plant and Vegetation Ecology), University of Antwerp, Antwerp, Belgium, and (3) Unit for Modelling of Climate and Biogeochemical Cycles, University of Liège, Liège, Belgium, for their poster "Sensitivity of the regional climate model ALARO-0 to land surface changes". The winner of the award 2017 will be announced on Friday, 8 September 2017, 16:15.

The **EMS Young Scientist Award** is presented annually to acknowledge excellence in young scientists. The awardee 2017 is Juha Aalto from Finland (FMI and University of Helsinki) for his publication "New gridded daily climatology of Finland: Permutation-based uncertainty estimates and temporal trends in climate", J. Aalto P. Pirinen and K. Jylhä, *Journal of Geophysical Research: Atmospheres*, 2016. Juha Aalto will give a Young Scientist Award Lecture on Friday, 11:30, in session OSA3.2. See page 87.

The **EMS Outstanding Contribution Award 2017** is awarded to Sylvain Joffre, chair of the EMS Committee on Meetings. He is honoured for pursuing and advancing the growth of the Annual Meeting activities of the Society through continuous and exceptional dedication to international networking and connecting diverse communities. Sylvain has

been a member of the Committee on Meetings since its re-establishment in 2008, and has been leading the committee since 2014.

The **EMS Media Awards** include the Outreach and Communication Award – given in recognition of projects that explore new and effective ways to communicate the science of meteorology; the Journalist Award, which aims to highlight outstanding professional work that explains the science to the public; and the TV Weather Forecast Award, which is presented to individuals to acknowledge best practice in weather presentation. For details on the media awardees see page 16.

The **EMS Tromp Award** honours outstanding achievement in biometeorology. The recipient 2017 is Stéphanie Horion, Denmark. A presentation on "Revealing turning points in ecosystem functioning over the Northern Eurasian agricultural frontier" will be given on Friday, 8 September 2017, 09:15, room "Gallery". Three **Tromp Foundation travel awards for young scientists** in the area of biometeorology are also given. For more details see page 18.

The **Harry Otten Prize** for Innovation in Meteorology encourages individuals and groups to come forward with new ideas on how meteorology in a practical way can further move society forward. Three finalists will present their ideas on Monday, 4 September 2017, 14:00, room "Gallery". For more details see page 19.

The **EMS Silver Medal** is presented annually to a person who has made distinguished contributions to the development of meteorology in Europe. The Silver Medal 2017 is awarded to Julia Slingo for her outstanding contributions to meteorology and climate predictions. The laudation is given by Florence Rabier. More details see page 20.

Young Scientist Award



The EMS Young Scientist Award 2017 is awarded to Juha Aalto from the Finnish Meteorological Institute (FMI) for his publication “New gridded daily climatology of Finland: Permutation-based uncertainty estimates and temporal trends in climate”, J. Aalto P. Pirinen and K Jylhä, *Journal of Geophysical Research: Atmospheres*, 2016, vol. 121, issue 8, p. 3807-3823. doi: 10.1002/2015JD024651

Citation

Juha Aalto contributed significantly to understanding local climate variation in cold regions, developing a new high-quality long-term gridded time series of seven variables for Finland together with the assessment of interpolation uncertainty, which is the cornerstone of climate services and an essential component in environmental impact studies

Juha Aalto will give a Young Scientist Award Lecture on his recent work at the EMS Annual Meeting in Dublin, in session OSA3.2 Spatial Climatology: Developing a new gridded daily climatology for Finland, on Friday, 8 September 2017, at 11:30 in room Business School 2.

Young Scientist Travel Awards

Inna Gubenko et al.

EMS2017-13:

An explicit method of mesoscale convective storm prediction for Central region of Russia

Friday, 8 September 2017, Author-in-attendance time: 10:30–11:30

Poster number P100, session UP1.3

See page 91.

Marco Reale et al.

EMS2017-35:

A climatology of explosive cyclones using a multi tracking approach

Wednesday, 6 September 2017, Author-in-attendance time: 18:00–19:00

Poster number P109, session UP3.3

See page 62

Jon Ander Arrillaga et al.

EMS2016-24:

Mesoscale-turbulence interactions in the ABL dynamics: a 10-year study in Cabauw (Netherlands)

Thursday, 7 September 2017, 15:00–15:15

Session UP1.2, room: Blue Room

See page 73.

Maria Kurbatova et al.

EMS2016-17:

Analysis of different wind gust forecast approaches

Tuesday, 5 September 2017, 10:15–10:30

Session: UP1.4, room: Blue Room

See page 41.

EMS MEDIA AWARDS



(photo NRK)

of three recent articles published on the popular Norwegian websites Yr.no and NRK.no.

- Oddvar has devoted his life to the rain
- Preparing the world's largest experiment
- Battling the contrails

Astrid Rommetveit receives the EMS Journalist Award for her very important work in helping to bridge the gap in understanding between experts and non-experts; she covers complex topics and presents them in an understandable and accessible way, without oversimplifying them. Rommetveit takes seriously one of the most important missions of journalists, which is to give the reader the full capacity to understand a complex topic.

Her articles have a strong human touch combined with science, which makes them interesting to the general public. They address successfully different aspects and facts, focusing on "small" stories and single persons. She provides a lively account by developing stories using people's statements to present facts and different points of view in sometimes controversial stories.

All articles are well structured, well written, easy to read, with relevant images, and well documented with scientific facts. They help bridging the communication gap between scientific achievements and research results and the public, presenting different points of view for complex topics.

Astrid Rommetveit, Norway, will receive the **EMS Journalist Award 2017**. Astrid Rommetveit is a journalist with the Norwegian Broadcasting Corporation NRK. As a journalist, she specializes on weather and climate, committing herself to tell important stories to a broad public. She was nominated on the basis

EMS TV Weather Forecast Award to Helga van Leur, RTL the Netherlands

Eight video clips of TV weather forecasts were submitted for the award. The selection committee choose the forecast produced by Helga van Leur (the Netherlands) to receive the award.

Citation

The entry demonstrated that Helga van Leur combines weather and climate in her presentation in a way that makes it relevant and interesting to viewers; adding climate-related information to the forecast was very helpful. Helga has clearly honed her presentation skills with great use of voice, facial expressions and arm movements to convey the message, supported by her graphics.

The awardee

Helga van Leur holds a master's degree in soil, water and atmosphere (Wageningen University, 1994), is certified in marketing (1997) and took courses in psychology related to communication in sustainability and climate Change (2014–2017).



She worked as a media meteorologist with Meteo Consult in the 1990s, and has been a broadcast meteorologist for RTL the Netherlands since 1997. Helga has won numerous awards, participated in Netherlands Scientific Expedition – Spitsbergen for awareness and communication (2015) and is an ambassador of the Red Cross in the Netherlands for awareness, vulnerability and self-reliance during extreme weather events.

Among the entries two more excellent presentations were selected to receive an honourable mention:

- Chloé Nabedian, France Televisions
- Jarosław Kret, Nova TV (Poland)

All three forecasts will be shown as examples of good practice during the Media and Communication Session at the EMS Annual Meeting in Dublin on Wednesday, 6 September 2017.

EMS MEDIA AWARDS

The EMS Outreach & Communication Award 2017 is presented to the **"Le train du climat & ses messagers" from France**. "Le train du climat" has been selected to receive the award for its very innovative and original concept to develop an exhibition on a train, as a catalyst for discussion and debate about climate change issues, between scientists and cultural mediators present on board and general public.

Taking place on the eve of the Paris accord negotiations in 2015, the project has been very successful and has met its main goal, which was to advance climate literacy and to contribute to science-based policy making and individual actions, by raising public awareness and delivering a nationwide message about climate change.

The exhibition has been built as a narrative story using a combination of state-of-the art outreach methods to educate the public. On its 3-week journey around France and 19 stopover cities in total, the train reached 23,000 people plus ~3000 school children and ~1000 decision makers and elected representatives. It also received an extensive coverage in media, which included TV, radio and newspapers.



Co-initiators of the project: the project was collectively devised by Christophe Cassou, research scientist at CNRS/Cerfacs (Centre National de Recherche Scientifique); Catherine Jeandel, research director at CNRS; Beatrice Korc, a freelance editorial manager, and Serge Planton, a climate researcher at Météo-France. A total of 42 scientists of very diverse expertise from 13 different institutes were on board. The project was strongly supported by SNCF, the French National Railway Company, and Train-Expos, its subsidiary, together with the ministries of Education & Research and Ecology.

Christophe Cassou, one of the co-initiators of the project, will present the project and talk about future plans during the Media & Communication Session on Wednesday, 6 September 2017.



EMS TROMP AWARD AND EMS TROMP YSTAS

EMS Tromp Award and Tromp foundation travel award to young scientists

The Tromp Foundation (Foundation for Biometeorological Research), the legacy of Solco W. Tromp, is funding this award with the intention to promote biometeorology in Europe. Biometeorology is an interdisciplinary science studying the interactions between atmospheric processes and living organisms – plants, animals and humans. It provides answers to the question "How does weather and climate impact the well-being of all living beings?"



The EMS Tromp award has recently been established and is given for the third time this year. The EMS Tromp Award 2017 winner is **Stéphanie Horion** from the University of Copenhagen, Denmark, nominated with the paper "Revealing turning points in ecosystem functioning over the Northern Eurasian agricultural frontier",

S. Horion, A.V. Prishchepov, J. Verbesselt, K. De Beurs, T. Tagesson, R. Fensholt, 2016, published in *Global Change Biology*.

The awardee will receive \$US 1,000 and travel expenses to attend the EMS Annual Meeting. The awardee will give a presentation on Friday, 8 September 2017 at 09:15 in Session OSA2.5 Agricultural Meteorology (room "Gallery").

Tromp Foundation travel award to young scientists

The Tromp Foundation also funds three Tromp Foundation travel awards for young scientists (TFTAYS) for papers that are presented at the EMS Annual Meeting specifically on topics in biometeorology. The following recipients have been selected; all are presenting in session OSA2.8/ES1.7: Atmospheric effects on humans: Air quality, biometeorology, urban climate and UV-radiation:

- **Anastasia Blea**, presenting *Cardiovascular admissions related to particulate matter from 2.5 μm to 80 μm in Heraklion, Crete Island, Greece*: on Wednesday, 6 September 2017, in the poster session 18:00–19:30, poster number P44.
1-minute poster pitch: Tuesday, 5 September 2017, at 10:15 in the Theatre.
- **Mikhail I. Varentsov**, presenting *Investigation of urban-caused mesoclimatic features of Moscow megacity*: on Tuesday, 5 September, 12:15–12:30, the Theatre.
- **Olga Gommershtadt**, presenting *Modeling of summer thermal comfort conditions of Arctic city on microscale*: on Wednesday, 6 September 2017, in the poster session 18:00–19:30, poster number P54.
1-minute poster pitch: Tuesday, 5 September 2017, at 10:15 in the Theatre.

Solco W. Tromp Foundation



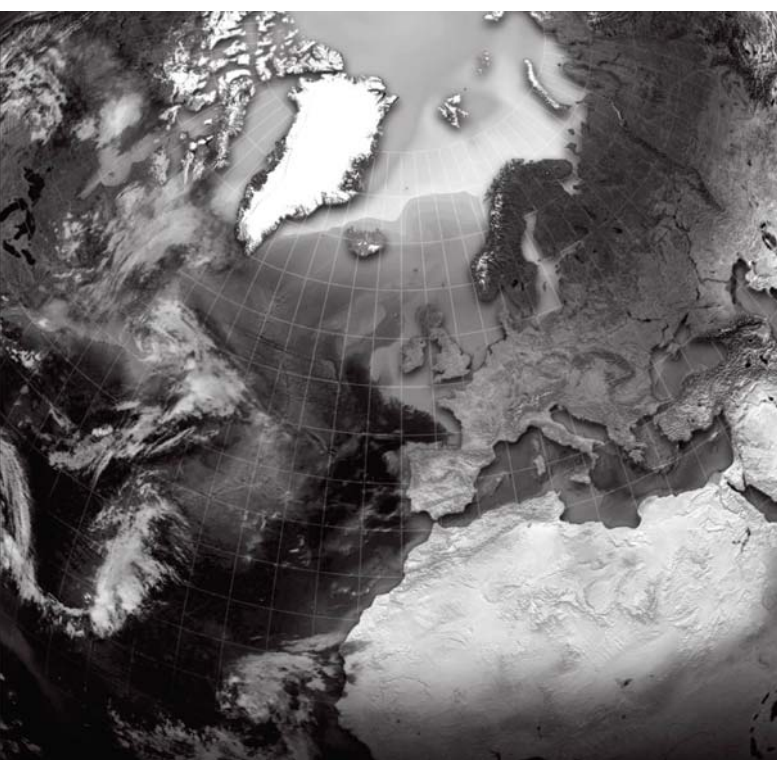
The

Harry Otten Prize

for Innovation in Meteorology

Who will win the prize?

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 jury has selected three finalists who will present their ideas during a session on Monday, 4 September, at the meeting of the European Meteorological Society (EMS) in Dublin, Ireland.

Afterwards the jury will decide on the prize, which will be presented to the winner during the award ceremony on Tuesday, 5 September.

The finalists are:

Lee Chapman

High-Resolution Monitoring of Weather Impacts on Infrastructure Networks

Tom de Ruijter

Making use of errors in consumer weather data to derive advanced weather parameters

Gert-Jan Steeneveld, Sytse Koopmans

CrowDat@ssimilation: Assimilation of crowdsourced meteorological data in NWP models to improve small-scale weather forecasts

EMS SILVER MEDAL

WEDNESDAY, 6 SEPTEMBER 2017

The Theatre

The European Meteorological Society has chosen Julia Slingo as laureate of the EMS Silver Medal 2017. She is honoured for her outstanding contributions to meteorology and climate predictions. She has led the work that brought new understanding of monsoons and intraseasonal variability associated with the Madden–Julian Oscillation. As a strong advocate of seamless weather and climate prediction she was at the forefront of its development and implementation. Through her inspirational leadership she facilitated joining together strong relationships, frameworks and networks. She championed the importance of communicating the dangers of climate change to decision makers and the public.

The laureate will give the Silver Medal Lecture: "From Weather to Climate: Responding to Climate Risk across Timescales".

Professor Dame Julia Slingo has made an outstanding contribution to meteorology on an international scale. Throughout her career Professor Slingo has brought innovative approaches to understanding and modelling weather and climate; these have led to new insights into how the atmosphere and climate system works and to significant advances in predictive skill. Her appointment as Met Office chief scientist in 2009 recognised that contribution and the science leadership she has provided to the UK and international research community. Professor Slingo retired in December 2016 after a long and distinguished career.

In her early career Professor Slingo contributed to significantly improving our understanding of clouds and how they interact dynamically with the atmosphere, carrying out work at the Met Office, European Centre for Medium-Range Weather Forecasts (ECMWF) and the National Center for Atmospheric Research (NCAR).

Returning from NCAR she joined the Department of Meteorology at the University of Reading, where she founded the group on tropical climate. This group is still undertaking ground-breaking work in tropical convection, monsoons, climate variability, and seasonal and decadal prediction. Her own interests led to a very distinguished research interest in the Asian monsoons. She is one of those rare scientists who has been able to contribute to both our core understanding and to advance our capabilities in mitigating adverse impacts of the monsoon.

Professor Slingo was the first female professor of meteorology in the UK and led the UK's climate science community as director of climate research in NERC's National Centre for Atmospheric Science, where she pioneered high-resolution climate modelling. In 2006 Professor Slingo was the founding director of the Walker Institute, which today has an international reputation for its interdisciplinary work on addressing the challenges of a changing climate. More latterly, as the Met Office chief scientist, she has strengthened the scientific and technical programme within the Met Office, driving forward the integration of weather and climate science, and building strong partnerships between the Met Office and the wider research community.

Julia Slingo has championed the importance of communicating developments in atmospheric and climate science with a wide audience. She led the development of the Met Office's Research News web pages, which provide insights into atmospheric science for educated non-expert readers.

Laudation

The laudatio will be given by Florence Rabier, director general of ECMWF.

Dr Florence Rabier has been the director-general of ECMWF since January 2016, after 2 years leading the centre's Forecast Department.

Dr Rabier is an internationally recognised expert in numerical weather prediction, whose leadership has greatly contributed to delivering major operational changes at both ECMWF and Météo-France. She is especially well known within the meteorological community for her key role in implementing an innovative data assimilation method (4D-Var) in 1997, which was a first worldwide and contributed to an optimal use of satellite observations in weather forecasting.

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.

WORKSHOPS



COST ES1303 Training School: Ground-based profiling networks for improving weather forecasts

3 September 2017, Dublin

**Martial Haeffelin (SIRTA, France),
Ewan O'Connor (FMI, Finland/Univ. of Reading, U.K.),
Domenico Cimini (CNR-IMAA, Italy),
Ulrich Loehnert (Univ. Cologne, Germany)**

A new generation of high-resolution (1km) forecast models promises to revolutionise the predictions of hazardous weather such as wind-storms, flash floods, and poor air quality. To realise this promise, a

dense observing network, focusing on the lower few kilometres of the atmosphere, is required to verify these new forecast models, with the ultimate goal of assimilating the data.

This session is intended to give an introduction to the current status of ground-based profiling networks in Europe and to demonstrate recent developments in providing calibrated and quality-controlled data in near-real time to national weather forecast centres so the data can be assimilated into the forecast models. The workshop will focus on the following European networks of (a) automatic lidars and ceilometers, (b) Doppler lidars, and (c) microwave radiometers. The final programme will be tailored to the experience (and interest) of registered participants.

ANNOUNCEMENT WORKSHOPS 2018, BUDAPEST

Geo-web services for climate and meteorological services workshop

Lecturer: Milan Kilibarda, University of Belgrade, Department of Geodesy and Geoinformatics

WebGIS is a quickly developing and changing science. The workshop will provide an introduction to concepts of geo-web services, and methods and techniques for forecasters, meteorologists, climatologists. A short review of state-of-the-art open-source WebGIS software solutions and services will be provided, followed by short exercises based on these solutions and services. For the first part of the exercises, QGIS software will be used; in the second we will attempt to build a small client in OpenLayers 3; this requires a very basic understanding of HTML, JavaScript, and CSS. Server-side services would be used from the existing web examples.

A workshop on geo-webservices is planned to be organised at the EMS2018 in Budapest.

Introduction to the Weather Research and Forecasting (WRF) model training workshop for beginners

**Gert-Jan Steeneveld (Wageningen Univ.),
Hugo Hartmann (MeteoGroup),
Aristofanis Tsiringakis (Wageningen Univ.)**

The WRF model is a popular open-source meso-scale meteorological model that is widely used in forecasting, education, academic, and applied atmospheric research. The model is rather flexible in set-up concerning model domain, resolution, and physical parameterisation schemes. This makes the model excellent for both theoretical and applied studies across a range of spatial and temporal scales in meteorology and climate. At the same time this requires user knowledge on the dos and don'ts when working with the model. We offer this workshop to PhD students, atmospheric researchers, and scientists, as well as consultants. The workshop is meant for those that have little to no experience with WRF as it will focus on first steps of running WRF and analysing results. The workshop focuses on first steps of running WRF and analysing results. Advanced WRF utilities will not be dealt with (e.g. data assimilation).

A WRF workshop is planned to be organised at the EMS2018 in Budapest.

Side meetings

SIM1

Harry Otten Board meeting (by invitation only)

Tuesday, 5 September 2017, 09:00–12:45

Studio



SIM2

COST ES 1303 'TOPROF': Final Meeting (by invitation only)

Conveners: Anthony Illingworth, Nico Cimini

Monday, 4 September 2017, 09:00–18:00

Side meetings room



SIM3

ECOMET – PRIMET meeting (by invitation only)

Convener: Dennis Schulze

Thursday, 7 September, 09:00–13:00

Side meetings room

PRIMET is the association of private sector weather service providers in Europe. ECOMET is an economic interest grouping of the National Meteorological Services of the European Economic Area. In order to facilitate good collaboration and a prosperous development of the market for meteorological services in Europe, PRIMET and ECOMET hold a joint meeting every year. This gives meteorological service providers direct access to relevant stakeholders in national meteorological services to discuss data provision and service related issues. ECOMET, on the other hand receives feedback about market needs to feed into their data strategy. Participation is by invitation only and open to all PRIMET members as well as representatives from ECOMET members.

SIM4

PSC 2018 meeting (by invitation only)

Thursday, 7 September 2017, 16:30–18:00

Side meetings room



SIM5

IABM General Meeting (by invitation only)

Wednesday, 6 September 2017, 18:00–19:00

Studio



SIM6

Workshop on the exchange of information about European initiatives in developing countries

Convener: Saskia Willemse, Co-Convener: Christoph Spirig

Tuesday, 5 September 2017, 11:15–13:00

Side meetings room

Many European institutions, including several national hydrometeorological services (NHMSs), are involved in projects aiming at improving meteorological and climatological services in developing countries. In this context it often happens that several development projects led by institutions of different countries are running at the NHMS of one developing country. The task at hand is often too big for any single helping NHMS to tackle and solve the numerous aspects that need to be addressed to make progress in the NHMS which receives the help. This justifies the presence of more than one helping NHMS, but it is not always easy to have the entire picture of all the ongoing initiatives. There is ample scope for coordination between the helping NHMSs and with other initiatives. A good example is set by AEMET, which, based on their great experience in collaboration projects in Latin America, are in the process of starting a coordinating dialogue with European NHMSs active in this region.

At this workshop we would like to discuss existing and possibly new ways to foster the exchange of scientific and strategic information on development initiatives in the field of meteorological and climatological services.

SIM7**Fifth WMO Communications Workshop for NMHS Public Communications Officers (by invitation only)**

Tuesday, 5 September 2017, 14:00–18:00

Wednesday, 6 September 2017, 09:00–13:00

Side meetings room



The following topics will be covered:

First session: From social media to emerging digital media

Second session: Communicating uncertainty from short-term to seasonal forecasting

Third session: Show & Tell

Fourth session: World Meteorological Day 2018: "Weather-ready, climate-smart"

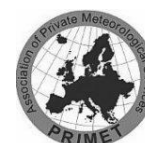
Fifth session: Communicating climate change to the general public

SIM8**PRIMET meeting (by invitation only)**

Convener: Dennis Schulze

Wednesday, 6 September 2017, 14:00–18:30

Side meetings room



PRIMET is the association of private sector weather service providers in Europe. PRIMET will hold its Annual General Meeting in Dublin. Participation is by invitation only and open to all PRIMET members. More information on PRIMET can be found at <http://www.primet.org>.

SIM9**Meet the President**

Convener: Host Böttger, Bob Riddaway

Monday, 4 September 2017, 18:30–19:30

Studio

**SIM10****General Assembly of Conveners (by invitation only)**

Wednesday, 6 September 2017, 13:00–14:00

The space

**SIM11****Developing a project to engage working scientists in secondary school education (open, but expression of interest required)**

Tuesday, 5 September 2017, 14:00–16:00

Wednesday, 6 September 2017, 09:00–12:30

Studio

**SIM12****ACTRIS CRC (by invitation only)**

Convener: Martial Haeffelin

Wednesday, 6 September 2017, 14:00–18:00

Studio

Review the status of the draft concept document for ACTRIS Cloud Remote Sensing Center.

Panel discussion on "Road transport snow/ice hazards – mitigation, safety and communication" as part of session OSA2.2 Reducing Weather Risks to Transport: air, sea and land

Tuesday, 5 September 2017, 15:15–15:55

Blue Room

An open panel discussion with audience participation involving topics concerned with road transport winter hazards. These will include communication methods to drivers and travellers before and during journeys and how we (meteorological providers and partners) convey the important forecast messaging, especially with severe weather.

- How and what can we do to improve road safety?
- How much should traffic flow be taken into account with respect to snowfalls and how this affects road states and driver behaviour?
- How can we better handle ice incidents (either surface water freezing or freezing rain events), indeed what is the best advice when we know de-icing activity will be compromised?
- Is there a critical combination of snow/wind/temperature/visibility whereby driver behaviour suffers enough to rapidly increase vehicle incidents, or are incidents random and too hard to predict with any real confidence?

Other related road traffic weather hazards will be discussed with views sought on best practice for mitigation and safety/prevention of accidents.

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Guest Editor: Nicole Mölders

Deadline for Submission: 31 Dec 2017

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Guest Editor: Gerhard Reuter

Deadline for Submission: 15 Dec 2017

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Guest Editor: Patrick S. Market

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Session Programme

Oral programme

In the detailed programme (pages 29 to 94) oral sessions are listed according to the time block for the oral presentations (i.e. 9:45–10:45, 11:15–12:45, 14:00–16:00, ...).

Within each time block sessions are listed in the following order: UP – OSA – ES.

Poster programme

Posters are listed on the day of the respective Author-in-attendance time (i.e. Poster Session).

The poster programme is structured into three Display Times and four Poster Sessions.

Display Time 1: Monday 9:00 – Tuesday 12:00

Display Time 2: Tuesday, 13:00 – Wednesday, 19:30

Display Time 3: Thursday, 9:00 – Friday 16:00.

Poster Session 1: Monday 18:30 – 19:30

Poster Session 2: Wednesday 18:00 – 19:30

Poster Session 3: Thursday 17:30 – 18:30

Poster Session 4: Friday 10:30 – 11:30 (Coffee Break & Poster Session)

Poster presentations are listed in the following order: UP – OSA – ES.

Poster areas are on the first (P42–P141) and second floor (P1–P41) of The Helix.

Side meetings

Most side meetings take place in the side meeting room in the Business School (Ground floor). Smaller meetings take place in The Studio (The Helix, second floor).

For the side meeting programme please see page 22.





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Monday, 09:30–10:45

09:30–09:45: Opening ceremony

Opening by the EMS President
Welcome by the IMS President
Welcome by the Minister for
Housing, Planning, Local Government

Horst Böttger
Declan Murphy
Eoghan Murphy

09:45–10:45 Strategic Lectures

Eoin Moran Director General Met Éireann
Making Weather and Climate Understandable - a key to better societal outcomes

Petteri Taalas WMO Secretary-General
Title: to be determined

Monday, 11:15–12:45

UP1.7 Metrology for meteorology and climate

Lecture room: Blue Room

Convener: Graziano Coppa
Co-Convener: Andrea Merlone

11:15–11:30: Poster pitches

11:30–11:45: EMS2017-482
Towards a Global Surface Reference Network
Peter Thorne

11:45–12:00: EMS2017-382
Air temperature as a criterion for snow and rain separation for Svalbard
Katarzyna Cielecka

12:00–12:15: EMS2017-284
Experimental evaluation of temperature uncertainty components due to siting conditions with respect to WMO classification
Graziano Coppa

12:15–12:30: EMS2017-298
Metrological Procedure for the Evaluation of Self-heating effect of thermometers used in Meteorological and Climate Applications
Carmen Garcia Izquierdo

12:30–12:45: EMS2017-872
Snow Albedo Effect on Air Temperature Measurements Task 3.5 of the JRP ENV58 MeteoMet2 Project
Christina Hofstätter

ORAL PROGRAMME UP1.7 CONTINUES ON MONDAY, 14:00

UP2.3 Radiation, aerosols and clouds

Lecture room: Business school 1

Convener: Emily Gleeson
Co-Conveners: Kristian Pagh Nielsen; Laura Rontu

11:15–11:45: EMS2017-169
Radiative transfer in atmospheric models – why do we still have to work on it? (solicited)
Petri Räisänen

11:45–12:00: EMS2017-409
Comparison of radiation parametrizations within HARMONIE-AROME NWP model
Laura Rontu

12:00–12:30: EMS2017-291
Comparison of several databases of downward solar radiation data at ocean surface with PIRATA measurements
Mélodie Trollet

12:30–12:45: EMS2017-270
The Project PerduS: Improvements in photovoltaic power forecasts during Saharan dust episodes over Europe
Vanessa Bachmann

ORAL PROGRAMME UP2.3 CONTINUES ON MONDAY, 14:00

UP3.6 Global and regional reanalyses

Lecture room: The Theatre

Convener: A. K. Kaiser-Weiss

Co-Conveners: Eric Bazile; Dick Dee

11:15–11:45: EMS2017-869

Reanalysis developments at ECMWF (solicited)
Dick Dee

11:45–12:00: EMS2017-384

Benchmarking Northern Hemisphere midlatitude atmospheric synoptic variability in centennial reanalysis and numerical simulations
Alessandro Dell'Aquila

12:00–12:15: EMS2017-477

Representation of Climate in Europe: An Intercomparison of Global and Regional Reanalyses
Sabrina Wahl

12:15–12:30: EMS2017-538

Towards a Definitive Historical High-Resolution Climate Dataset for Ireland - Promoting Climate Research in Ireland.
Jason Flanagan

12:30–12:45: EMS2017-661

High Resolution Gridded Datasets of Hydro-Climate Indices for Ireland
Christopher Werner

ORAL PROGRAMME UP3.6 CONTINUES ON MONDAY, 14:00

OSA2.1 Applications of meteorology and oceanography in the coastal zone

Lecture room: Business school 2

Convener: Mario Marcello Miglietta

Co-Conveners: Manel Grifoll; Silvio Gualdi; Joaquim Ballabrera

11:15–11:30: Poster pitches

11:30–11:45: EMS2017-367

Investigation of the Development of Internal Boundary Layers by Means of Large-Eddy Simulation
Sonja Krüger

11:45–12:00: EMS2017-505

WRF model simulations forced with GEFS: an ensemble approach for the prediction of wind speed near a complex coastline
Andrea Tateo

12:00–12:15: EMS2017-725

Estimating climatic loads for 'extreme' bridges in complex terrain - Observations and analysis of the atmospheric conditions at planned bridge locations in the E39 project of the Norwegian Road Administration
Hálfðán Ágústsson

12:15–12:30: EMS2017-782

Atmospheric-Wave-Current interactions in a wind-jet region: the case of the Ebro Delta shelf
Manel Grifoll

12:30–12:45: EMS2017-786

Objective Verification of the UK inshore waters forecast
Michael Sharpe

END OF ORAL PROGRAMME OSA2.1

ES1.2 Hydrological risk outlook: what hydro-climatic products and services are needed for the water sector?

Lecture room: Gallery

Convener: Bart van den Hurk

Co-Conveners: Felicity Liggins; Gwyn Rees; Shaun Harrigan

11:15–11:45: EMS2017-842

Stakeholder engagement within IMPREX: improving predictions and management of hydrological extremes
Janet Wijngaard

11:45–12:00: EMS2017-412

The EFAS seasonal outlook
Louise Arnal

12:00–12:15: EMS2017-568

GloFAS-Seasonal: An operational seasonal global hydro-meteorological forecasting system
Rebecca Emerton

12:15–12:30: EMS2017-467

EDgE - A pan-European proof of concept demonstrator for monthly to multi-decadal decision making in the water sector
Katie Smith

12:30–12:45: EMS2017-658

Hydrological Outlook UK: an operational streamflow and groundwater level forecasting system at monthly to seasonal time scales
Shaun Harrigan

END OF ORAL PROGRAMME ES1.2

Monday, 14:00–16:00

PSE3 Harry Otten Prize for Innovation in Meteorology: Presentations by Finalists

Lecture room: Gallery

Convener: Richard Anthes; Dennis Schulze

14:10–14:30: EMS2017-878

High-Resolution Monitoring of Weather Impacts on Infrastructure Networks

Lee Chapman

14:30–14:35: Discussion

14:35–14:55: EMS2017-877

Making use of errors in consumer weather data to derive advanced weather parameters

Tom de Ruijter

14:55–15:00: Discussion

15:00–15:20: EMS2017-879

CrowDat@ssimilation: Assimilation of crowdsourced meteorological data in NWP models to improve small-scale weather forecasts

Gert-Jan Steeneveld

15:20–15:25: Discussion

15:25–15:30: Conclusion

END OF ORAL PROGRAMME PSE3

The Monday afternoon coffee break is sponsored by the Harry Otten Foundation.

UP1.7 Metrology for meteorology and climate

Lecture room: Blue Room

Convener: Graziano Coppa

Co-Convener: Andrea Merlone

14:00–14:15: EMS2017-731

A global database with parallel measurements to study non-climatic changes

Victor Venema

14:15–14:30: EMS2017-74

On-ground field test of in-situ solar irradiation correction technique using dual thermistors

Yong-Gyoo Kim

14:30–14:45: EMS2017-280

Traceable air humidity measurements by means of frequency-stabilized cavity ring-down spectroscopy.

Antonio Castrillo

14:45–15:00: EMS2017-805

A novel method for vicarious re-characterisation of the MVIRI VIS spectral response to facilitate climate monitoring

Ralf Quast

15:00–15:15: EMS2017-587

Relevant Sources of Uncertainty in a Climate Data Record from the Meteosat Visible Channel

Frank Ruethrich

15:15–15:30: EMS2017-637

A new Fundamental Climate Data Record (FCDR) for almost 40 years of measurements from the polar-orbiting High resolution Infrared Radiation Sounder (HIRS) based on a metrologically traceable uncertainty analysis.

Gerrit Holl

END OF ORAL PROGRAMME UP1.7

ORAL PROGRAMME OF UP2.4 CONTINUES IN THIS ROOM

UP2.1 Ocean - atmosphere interactions and coastal processes

Lecture room: Business school 2

Convener: Mario Marcello Miglietta; Sandro Carniel

Co-Conveners: Alvise Benetazzo; Huw Lewis; Joanna Staneva

14:00–14:15: Poster pitches

14:15–14:30: EMS2017-33

Offshore wind field modifications over the Baltic Sea due to land-sea interaction

Nina Svensson

14:30–14:45: EMS2017-156

From Surface to Atmosphere - Ocean-Wave-Atmosphere interactions in a fully coupled environmental prediction model

Joachim Fallmann

14:45–15:00: EMS2017-175

Cold outbreaks from Mistral wind in the Western Mediterranean basin

Jordi Mazon

15:00–15:15: EMS2017-185

Particle transport model sensitivity on wave-induced processes in the coupled model system

Joanna Staneva

15:15–15:30: EMS2017-702

Effect of sea-surface roughness on the surface deepening of an explosive cyclone in the Taurus Sea
John Kouroutzoglou

15:30–15:45: EMS2017-738

The effect of tropical cyclones on coastal ocean and atmosphere interaction
Liudmila Vanina-Dart

15:45–16:00: EMS2017-865

On the use of a very-high resolution atmosphere-ocean-wave coupled model to describe a flash-flood event over the North-East Italy
Antonio Ricchi

END OF ORAL PROGRAMME UP2.1**UP2.3 Radiation, aerosols and clouds**

Lecture room: Business school 1

Convener: Emily Gleeson

Co-Conveners: Kristian Pagh Nielsen; Laura Rontu

14:00–14:15: EMS2017-595

Can we improve how we verify cloud forecasts?
Kristian Pagh Nielsen

14:15–14:30: EMS2017-37

Radiation and cloud verification using the MÉRA high resolution regional reanalysis data set
Emily Gleeson

14:30–14:45: EMS2017-570

Calculation of incoming shortwave fluxes for the Atlantic Ocean using SAIL and MGO parametrizations and CLAAS-2 cloud satellite data.
Alexey Sinitsyn

14:45–15:00: EMS2017-449

Climatology and long-term changes in cloud cover and short-wave radiation over the world oceans
Marina Aleksandrova

15:00–15:15: EMS2017-581

Warm conveyor belts and cloud radiative forcing
Hanna Joos

15:15–15:25: Poster pitches**END OF ORAL PROGRAMME UP2.3****UP2.4 The cryosphere and its interactions with meteorology and the climate system**

Lecture room: Blue Room

Convener: Renato R. Colucci

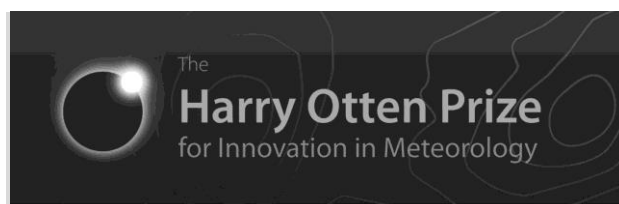
Co-Conveners: Florence Colleoni; Barbara Stenni

15:30–15:45: EMS2017-404

Meteorology, surface energy and melting during 2015-2017 ablation seasons at the Glacier No. 18, East Sayan Range, southeast Siberia
Eduard Osipov

15:45–16:00: EMS2017-111

Understanding ice cave microclimate through thermo-fluid dynamics approaches: a case study from the southeastern Alps
Barbara Bertozzi

ORAL PROGRAMME UP2.4 CONTINUES ON MONDAY, 16:30

The following coffee break is sponsored by the Harry Otten Foundation.

UP3.6 Global and regional reanalyses

Lecture room: The Theatre

Convener: A. K. Kaiser-Weiss

Co-Conveners: Eric Bazile; Dick Dee

14:00–14:15: EMS2017-627

UERRA SMHI HARMONIE-ALADIN high resolution Regional Reanalysis over Europe for 1961-2015
Per Unden

14:15–14:30: EMS2017-644

A 50 year surface analysis over Europe at 5.5km within the UERRA project
Eric Bazile

14:30–14:45: EMS2017-69

Evaluation and uncertainty assessment of probabilistic and deterministic UERRA regional re-analyses of precipitation by using single-estimate and ensemble observational datasets
Francesco Isotta

14:45–15:00: EMS2017-691

Interpreting bias, correlation and other skill scores for UERRA regional reanalyses
Andrea K. Kaiser-Weiss

15:00–15:15: EMS2017-811

Representation of near-surface winds in the COSMO reanalysis systems
Benno Thoma

15:15–15:30: EMS2017-98

Assessing the diurnal cycle of integrated water vapour and precipitation with highly resolved regional reanalyses and observations over Germany
Sandra Steinke

15:30–15:45: EMS2017-504

Towards a Convective Scale Atmospheric Reanalysis including a Soil-Vegetation-Atmosphere-Transfer-Model
Clarissa Figura

15:45–16:00: EMS2017-421

UERRA Regional Reanalysis production data with Data rescue and Quality and Uncertainty evaluation for pre-operational Copernicus climate change services
Per Unden

Short poster introductions

END OF ORAL PROGRAMME UP3.6

Monday, 16:30–18:00

UP2.2 Air pollution from urban to global scales: meteorological, chemical and biological processes

Lecture room: Business school 1

Convener: Charles Chemel

Co-Conveners: Martin Piringier; Astrid Manders; K. Heinke Schluenzen; Leena Järvi; Alexander Baklanov; Vincent-Henri Peuch

16:30–16:45: Short poster introduction

16:45–17:00: EMS2017-101

Fugitive methane emissions from biogas plants - results of a field experiment

Martin Piringier

17:00–17:15: EMS2017-452

Meteorological and atmospheric composition trends in Moscow region

Vadim Rakitin

17:15–17:30: EMS2017-301

Thermal inversion influence on the mixing layer height during a record pollutant event at Paris megacity

Juan Antonio Bravo Aranda

17:30–17:45: EMS2017-668

Study of the air quality in the surroundings of an urban park: A micrometeorological approach

Mariano Sastre Marugán

17:45–18:00: EMS2017-804

On the impact of urban canopy forcing on summer photochemistry over central Europe

Peter Huszar

18:00–18:15: EMS2017-866

Desert Dust PM_{2.5} and PM₁₀ ratio over a Caribbean Island Atmosphere

Lovely Euphrasie-Clotilde

18:15–18:30: EMS2017-510

Implementation and impacts of WRF meteorology in the LOTOS-EUROS chemistry transport model

Astrid Manders

END OF ORAL PROGRAMME UP2.2

UP2.4 The cryosphere and its interactions with meteorology and the climate system

Lecture room: Blue Room

Convener: Renato R. Colucci

Co-Conveners: Florence Colleoni; Barbara Stenni

16:30–16:45: Poster pitches

16:45–17:00: EMS2017-60

On the uncertainty of altitudinal precipitation gradients connecting glaciers to meteorological stations.

Michael Kuhn

17:00–17:15: EMS2017-152

Regime transitions in near-surface temperature inversions at the Antarctic: a conceptual model

Bas Van de Wiel

17:15–17:30: EMS2017-517

Reaching the 1.5 degree limit: what does it mean for West Antarctica and the global mean sea level?

Tido Semmler

17:30–17:45: EMS2017-317

Linkages between atmospheric circulation and mass partitioning over the Greenland ice sheet

Marco Tedesco

17:45–18:00: EMS2017-190

Hypsometric amplification and routing moderation of Greenland ice sheet meltwater release

Dirk van As

18:00–18:15: EMS2017-283

Quantifying and predicting the impact of the Madden-Julian Oscillation on the state of the Arctic

Gina Henderson

18:15–18:30: EMS2017-442

A comparison of the effects of interannual Arctic sea ice loss and ENSO on winter haze days: observational analyses and AGCM simulations

Shuanglin Li

END OF ORAL PROGRAMME UP2.4

UP2.6 Waves and storms: Understanding Extreme Nearshore Wave Events through Studies of Erosion on Rocky Coasts

Lecture room: Business school 2

Convener: Frederic Dias

Co-Conveners: Rónadh Cox; Louise O'Boyle

16:30–16:45: EMS2017-801

Boulders as bellwethers: studying the effects of storm waves on boulder deposits can improve our understanding of coastal storm wave forces
Rónadh Cox

16:45–17:00: EMS2017-839

Geomorphological response of coastal boulder ridges to storminess in Brittany (France)
Ronan Autret

17:00–17:15: EMS2017-696

The roughness of Ireland's rock platforms.
Mary Bourke

17:15–17:30: EMS2017-276

A laboratory experiment on the incipient motion of boulders by tsunami flows
Stefano Tinti

17:30–17:45: EMS2017-182

Case study of the winter 2013/2014 extreme wave events off the west coast of Ireland
Jelena Janjic

17:45–18:00: EMS2017-61

A Study of Non-Linear Ocean Waves with a Parallel Pseudo-Spectral Model: Applications to Coastal Storm Waves
Nicole Beisiegel

18:00–18:15: EMS2017-228

Extreme nearshore wave amplification over a variable bathymetry
James Herterich

18:15–18:30: EMS2017-107

Extreme wave events in Ireland: 2012 - 2016
Frederic Dias

18:30–18:45: Poster pitches

END OF ORAL PROGRAMME UP2.6

OSA3.3/ES1.5 The Copernicus Climate Change Service implemented by ECMWF (co-organized)

Lecture room: The Theatre

Convener: Dick Dee; Jean-Noel Thepaut; Carlo Buontempo

Co-Conveners: The Theatre

16:30–16:45: EMS2017-812

Status update on C3S
Dick Dee

16:45–17:00: Poster pitches

17:00–17:15: EMS2017-448

Supporting Climate Services in Europe: the Copernicus Climate Data Store Toolbox
Cedric Bergeron

17:15–17:30: EMS2017-846

Access to Baseline and Reference in-situ Observations
Fabio Madonna

17:30–17:45: EMS2017-546

The CMCC Seasonal Prediction System: a contribution to the Copernicus C3S multi-system ensemble
Stefano Materia

17:45–18:00: EMS2017-557

Sector engagement for the Copernicus Climate Change Service: Translating European User Requirements
Maria Noguer

18:00–18:15: EMS2017-690

The C3S project UrbanSIS: 1 km resolution ECVs and impact indicators over European cities focusing on the health and infrastructure sectors
Lars Gidhagen

18:15–18:30: EMS2017-824

The Copernicus Climate Change Service 'European Climatic Energy Mixes'
Alberto Troccoli

18:30–18:45: EMS2017-885

Serving the Energy Sector with climate information: the CLIM4ENERGY Copernicus C3S project
Robert Vautard

END OF ORAL PROGRAMME OSA3.3/ES1.5

ES2.2 Communication of science**Lecture room:** Gallery**Convener:** Gerald Fleming**Co-Conveners:** Martina Junge; Nina Kukkurainen; Eija Vallinheimo**16:30–17:00: EMS2017-859**

"Grand day for it": how forecasting as conversation can speak beyond weather and climate (solicited)

Pádraig Murphy**17:00–17:15: EMS2017-40**

Bus-Stop Language; how to communicate science to the general public

John Teather**17:15–17:30: EMS2017-41**

Good science communication is an art

Claire Martin**17:30–17:45: EMS2017-701**

Science Communication - A Glance at the Fundamentals

C. Alex Young**17:45–18:00: EMS2017-63**

Going into the unknown: science engagement in usual locations

Felicity Liggins**18:00–18:15: EMS2017-694**

Using data visualisation to engage the public with climate change and earth observation science

Sophie Power**18:15–18:30: EMS2017-583**

A lucky spin

Hans Olav Hygen**Poster pitches****END OF ORAL PROGRAMME ES2.2**

Posters Monday, 18:30–19:30

UP1.7 Metrology for meteorology and climate

Convener: Graziano Coppa

Co-Convener: Andrea Merlone

Poster pitches: Mon, 11:15, Blue Room

P42: EMS2017-58

Correction of radiation-induced warm-biased air temperature measured by radiosondes using dual thermistors

Sang-Wook Lee

P43: EMS2017-115

Effect of background temperature on dew-point hygrometers during the calibration at low dew-points

Jong Chul Kim

P44: EMS2017-119

Evaluation of radiosonde humidity sensors at low temperature using low-temperature humidity chamber

Byung Il Choi

P45: EMS2017-205

Dynamic Uncertainty: Accounting for Calibration Drift

Neil Mander

P46: EMS2017-293

Intercomparison of Wind Tunnels

Thomas Dent-Jones

P47: EMS2017-784

The sensitivity and the hysteresis of humidity sensors based on graphene oxides

Eun Uk Park

END OF POSTER PROGRAMME UP1.7

UP2.1 Ocean - atmosphere interactions and coastal processes

Convener: Mario Marcello Miglietta, Sandro Carniel

Co-Convener: Alvise Benetazzo, Huw Lewis, Joanna Staneva

Poster pitches: Mon, 14:00, Business school 2

P48: EMS2017-358

Ship observations and numerical simulation of the marine atmospheric boundary layer over the spring oceanic front in the northwestern South China Sea

Rui Shi

P49: EMS2017-643

Evaluation of the coupled COSMO-CLM+NEMO-Nordic model with focus on North and Baltic seas

Trang Van Pham

P50: EMS2017-501

Sensitive Analysis of several WRF Model Parametrizations to Simulate Weather Extremes over Eastern Spain

Pau Benetó-Vallés

P51: EMS2017-861

Numerical analysis of a Mediterranean Hurricane coupling the SWAN, WRF and WRF-Chem models: investigation of feedbacks among sea spray, drag coefficients, and latent heat flux

Umberto Rizza

P52: EMS2017-183

A North Sea-Baltic Sea regional coupled models: Atmosphere, wind waves and ocean

Joanna Staneva

END OF POSTER PROGRAMME UP2.1

UP2.2 Air pollution from urban to global scales: meteorological, chemical and biological processes

Convener: Charles Chemel

Co-Convener: Martin Piringer, Astrid Manders, K. Heinke Schluenzen, Leena Järvi, Alexander Baklanov, Vincent-Henri Peuch

Poster pitches: Mon, 16:30, Business school 1

P53: EMS2017-145

The Simulation of Asian Dust Transportation using WRF-Chem: The Distributions of Particulate Matters with Geographic Effects in Korea

Deok-Du Kang

P54: EMS2017-781

Precipitation intensity - temperature relation in urban areas

Iris Manola

P55: EMS2017-491

Long term variations and trends in tropospheric ozone and temperature values in Castilla y León (Spain)

Ramón Viloria

P56: EMS2017-418

The effects of meteorological conditions on the concentration of air pollutants in Seoul

Joonsuk Lee

P57: EMS2017-476

Distribution of CO, CH₄ and AOD trends over industrial and background regions of Eurasia according to spectroscopic ground-based and satellite observations

Nikolai Elansky

END OF POSTER PROGRAMME UP2.2

UP2.3 Radiation, aerosols and clouds

Convener: Emily Gleeson

Co-Convener: Kristian Pagh Nielsen, Laura Rontu

Poster pitches: Mon, 15:15, Business school 1

P58: EMS2017-424

Surface solar radiation modelling over 1900-2014: comparison between the regional climate model MAR and reanalyses

Coraline Wyard

P59: EMS2017-749

Satellite cloud parameter retrievals and their effects on the SW radiation at the surface in the south of Portugal

Vanda Salgueiro

END OF POSTER PROGRAMME UP2.3

UP2.4 The cryosphere and its interactions with meteorology and the climate system

Convener: Renato R. Colucci

Co-Convener: Florence Colleoni, Barbara Stenni

Poster pitches: Mon, 16:30, Blue Room

P60: EMS2017-5

Climatic variability of sea ice edge location in the Arctic

Anton Bukatov

P61: EMS2017-172

First considerations and meteorological control in polycyclic aromatic hydrocarbons (PAH) and heavy metals deposition over alpine glaciers

Arianna Peron

P62: EMS2017-297

Would Sea Ice Reduction in Boreal High Latitudes Affect Tropical Rain Patterns?

Isimar Santos

P63: EMS2017-614

Filtering of Spurious Ice from Sea Ice Concentration Fields

John Lavelle

P64: EMS2017-767

See the picture of the cryoconite distribution from satellites

Ally Yasumoto

END OF POSTER PROGRAMME UP2.4

UP2.6 Waves and storms: Understanding Extreme Nearshore Wave Events through Studies of Erosion on Rocky Coasts

Convener: Frederic Dias

Co-Convener: Rónadh Cox, Louise O'Boyle

Poster pitches: Mon, 18:30. Business school 2

P65: EMS2017-320

Field measurement of nearshore wave conditions at the Aran Islands, Co. Galway- Winter 2016/2017

Louise O'Boyle

P66: EMS2017-858

Evidence for a 15th Century tsunami event on the southwest coast of Ireland

Abigail Cronin

P67: EMS2017-774

The influence of platform roughness on wave energy across a shore platform on the west coast of Ireland

Niamh Cullen

P68: EMS2017-179

Numerical simulation of wave impact and runup on the Aran Islands, Ireland

Luc Lenain

END OF POSTER PROGRAMME UP2.6

UP3.6 Global and regional reanalyses

Convener: A. K. Kaiser-Weiss

Co-Convener: Eric Bazile, Dick Dee

Poster pitches: Mon, 16:00, The Theatre

P69: EMS2017-167

Methodology of detailed regional atmospheric modelling on the multi-year timescales

Vladimir Platonov

P70: EMS2017-150

Assessment of the quality of NCEP-2 and CFSR reanalysis daily temperature in China based on long-range correlation

Wenping He

P71: EMS2017-535

Indirect evaluation of a high-resolution precipitation reanalysis system in mountainous areas during winter

Antoine Verrelle

P72: EMS2017-747

Planetary boundary layer depicted by most recent regional reanalyses

Ronny Petrik

P73: EMS2017-120

Analysis of the Irish Snow Event of January 1982 using Met Éireann ReAnalysis (MÉRA) and ERA-Interim data

Maria Galavan

END OF POSTER PROGRAMME UP3.6

OSA1.12 Ground-based profiling networks for improving weather forecasts: COST Action ES1303

Convener: Anthony Illingworth

Co-Convener: Domenico Cimini

P1: EMS2017-103

Using a small network of ceilometers in Austria to investigate a Saharan dust episode

Martin Piringer

P2: EMS2017-132

Freezing condition monitoring and FMI's icing forecast model evaluation with observations from ceilometer network in Finland

Anne Hirsikko

P3: EMS2017-299

Non-linear filtering of Doppler lidar measurements for fast turbulence estimation

Thomas Rieutord

P4: EMS2017-657

Network 1DVAR temperature and humidity profile retrievals from ground-based microwave radiometers in Europe

Domenico Cimini

P5: EMS2017-466

Polly^{NET} - a network of automated Raman-polarization lidars in the framework of ACTRIS/EARLINET

Holger Baars and the PollyNET-Team

P6: EMS2017-522

Evaluation of forward modelled backscatter with an urban ceilometer network for a clear-sky period

Elliott Warren

P7: EMS2017-525

Results from continuous atmospheric boundary layer humidity profiling with a compact DIAL instrument

Christoph Munkel

P8: EMS2017-623

Developing a Forward Model for Ice Cloud Attenuated Backscatter

Emma Hopkin

P9: EMS2017-640

Urban PBL evolution determined by ceilometer and weather prediction model in fair weather over Sofia

Ventsislav Danchovski

P10: EMS2017-681

Capabilities and Benefits of Coherent Doppler LIDARs for Future Weather Observing Networks

Ludovic Thobois

P11: EMS2017-686

Instrumentation inter-comparison and atmospheric boundary layer height retrievals during SLOPE II campaign at Granada (Spain)

Juan Luis Guerrero-Rascado

P12: EMS2017-810

Boundary-Layer Height by ceilometer and radiosounding in Sofia valley for specific cases

Orlin Gueorguiev

P13: EMS2017-821

Estimation of the Mixing-Layer Height from ceilometer measurements in Athens, Greece, during 2009

Harry Kambezidis

END OF POSTER PROGRAMME OSA1.12

OSA2.1 Applications of meteorology and oceanography in the coastal zone

Convener: Mario Marcello Miglietta
Co-Convener: Manel Grifoll, Silvio Gualdi, Joaquim Ballabrera
Poster pitches: Mon, 11:15, Business school 2

P14: EMS2017-188

Impact of Sea-Level Rise and Climate Change on Saltwater Intrusion through a Modelling Approach
Jong Ahn Chun

P15: EMS2017-411

The wave-oceanographic model COAWST to forecast sea-level and waves for the Adriatic Sea and the Emilia-Romagna coasts.
Lidia Bressan

P16: EMS2017-220

Description of a coastal impact event in Basque Country: 9 February 2016 case.
Santiago Gaztelumendi

P17: EMS2017-262

Investigation of Coastal Upwelling processes at the coast of Poland: Use of online coupled models ICON and GETM
Tobias Bauer

END OF POSTER PROGRAMME OSA2.1

OSA3.3/ES1.5 The Copernicus Climate Change Service implemented by ECMWF (co-organized)

Convener: Dick Dee, Jean-Noel Thepaut, Carlo Buontempo
Poster pitches: Mon, 16:45, The Theatre

P18: EMS2017-264

Copernicus Climate Change Service Roadmap for European Climate Projections
Bernd Eggen

P19: EMS2017-636

The German Climate Forecast System, Version 1, Provider of Seasonal Forecasts to the C3S Climate Data store
Kristina Froehlich

P20: EMS2017-822

The ECEM climate service: how reanalysis can help energy planning
Laurent Dubus

END OF POSTER PROGRAMME OSA3.3/ES1.5

ES2.2 Communication of science

Convener: Gerald Fleming
Co-Convener: Martina Junge, Nina Kukkurainen, Eija Vallinheimo
Poster pitches: Mon, 18:30, Gallery

P74: EMS2017-594

From twitting to training: a communication approach to adapt to a changing Arctic climate
Dragana Bojovic

END OF POSTER PROGRAMME ES2.2

Meet the EMS President

Lecture room: The Studio

Convener: Horst Böttger
Time: 18:30-19:30

Icebreaker

Location: The Helix foyers

Time: 19:30-21:00

Irish Music by 'The Isobars', a choir formed by staff of Met Éireann.

Tuesday, 09:00–09:30

Keynote Lecture on Operational Systems and Applications (OSA)

ECMWF's ensemble prediction: A strategic and challenging choice
Florence Rabier Director General, ECMWF

Tuesday, 09:45–10:45

Upload of presentations for sessions starting at 9:45 is possible from 8:40 to 09:00 and from 09:15.

UP1.4 Towards a better understanding of wind gusts: observations, processes, predictions and verification

Lecture room: Blue Room

Convener: Sabrina Wahl

Co-Conveners: Martin Göber; Susanna Mohr; Matthias Brueck

09:45–10:15: EMS2017-847

Current gust forecasting techniques, developments and challenges (solicited)

Peter Sheridan

10:15–10:30: EMS2017-17 (EMS YSTA)

Analysis of different wind gust forecast approaches

Maria Kurbatova

10:30–10:45: EMS2017-630

Customizing the Weather Research and Forecasting Model for west Spitsbergen fjords

Szymon Kosecki

ORAL PROGRAMME UP1.4 CONTINUES ON TUESDAY, 11:15

UP2.5/OSA1.9 Meteorology, climate and space weather (co-organized)

Lecture room: Business school 2

Convener: Mauro Messerotti

Co-Conveners: Suzy Bingham; David R. Jackson; Annika Seppälä; Peter Gallagher

09:45–10:15: EMS2017-771

Towards Enhanced Resilience: U.S. National Space Weather Strategy and Action Plan, and Associated Policy (solicited)

Seth Jonas

10:15–10:30: EMS2017-474

Development of new geomagnetic index forecasts using a Markov chain method

Edward Pope

10:30–10:45: EMS2017-629

Forecasting geomagnetic storms and GICs from Coronal Holes

Tadhg M. Garton

ORAL PROGRAMME UP2.5/OSA1.9 CONTINUES ON TUESDAY, 11:15

UP3.3 Synoptic climatology

Lecture room: Gallery

Convener: Radan Huth; Rasmus Benestad

09:45–10:15: EMS2017-807

Extreme cold over North America and storminess in Europe orchestrated by stationary Rossby wave packets from the Pacific (solicited)

Rodrigo Caballero

10:15–10:30: EMS2017-336

Relationships between circulation modes and surface climatic variables: a comparison of reanalyses

Martin Hyncica

10:30–10:45: EMS2017-597

Role of Synoptic Disturbances over the South China Sea on Precipitation pattern over Indonesia

Rahmat Hidayat

ORAL PROGRAMME UP3.3 CONTINUES ON TUESDAY, 11:15

OSA1.12 Ground-based profiling networks for improving weather forecasts: COST Action ES1303

Lecture room: Business school 1

Convener: Anthony Illingworth

Co-Conveners: Domenico Cimini

Field Experiments

09:45–10:00: EMS2017-341

Recent advances in processing of ground-based remote sensing observations and their application for NWP model evaluation. (solicited)

James M. Wilczak

10:00–10:15: EMS2017-368

Real-time data assimilation of ground-based microwave radiometer network for short-range rainfall forecast in Tokyo (solicited)

Shingo Shimizu

10:15–10:30: EMS2017-527

The international ceilometer inter-comparison campaign CeiLinEx2015 - uncertainties and artefacts of aerosol profiles

Ina Mattis

10:30–10:45: EMS2017-261

1D variational retrievals of boundary layer temperature profiles from ground-based microwave radiometers in an Alpine valley

Pauline Martinet

ORAL PROGRAMME OSA1.12 CONTINUES ON TUESDAY, 11:15

OSA2.8/ES1.7 Atmospheric effects on humans: Air quality, biometeorology, urban climate and UV-radiation (co-organized)

Lecture room: The Theatre

Convener: Andreas Matzarakis; Charles Chemel; Vincent-Henri Peuch

Co-Conveners: Alexander Baklanov; Astrid Manders; Tanja Cegnar; Leena Järvi; K. Heinke Schlutzenzen

09:45–10:00: EMS2017-826

Long term air quality measurements: are we ready to speak about "chemical climate" and its change?

Edi Baiutti

10:00–10:15: EMS2017-843

Urban heat island and its impact

Tomas Halenka

10:15–10:45: Poster pitches

ORAL PROGRAMME OSA2.8/ES1.7 CONTINUES ON TUESDAY, 11:15

Tuesday, 11:15–13:00

UP1.4 Towards a better understanding of wind gusts: observations, processes, predictions and verification

Lecture room: Blue Room

Convener: Sabrina Wahl

Co-Conveners: Martin Göber; Susanna Mohr; Matthias Brueck

11:30–11:45: EMS2017-841

Much ado about wind warnings

Martin Göber

11:45–12:00: EMS2017-433

Postprocessing and Calibration of Wind-Gusts of the COSMO-DE-EPS Ensemble

Reinhold Hess

12:00–12:15: EMS2017-129

Observing and forecasting wind gusts in winter storms over Germany

Florian Pantillon

12:15–12:30: EMS2017-457

Cloud driven intermittent surface wind fluctuations revealed by ICON-LEM simulations

Matthias Brueck

12:30–12:45: EMS2017-580

Evaluation of wind gusts in German wide LES weather forecast simulations

Akio Hansen

12:45–13:00: EMS2017-197

New methodologies to observe wind gusts: research aircraft and Doppler lidar measurements

Irene Suomi

END OF ORAL PROGRAMME UP1.4

UP2.5/OSA1.9 Meteorology, climate and space weather (co-organized)

Lecture room: Business school 2

Convener: Mauro Messerotti

Co-Conveners: Suzy Bingham; David R. Jackson; Annika Seppälä; Peter Gallagher

11:15–11:45: EMS2017-709

The NASA Space Weather Research Center (solicited)

C. Alex Young

11:45–12:00: EMS2017-567

Space Weather Activities in Ireland

Peter Gallagher

12:00–12:15: EMS2017-164

Space - the Final Verification Frontier?

Michael Sharpe

12:15–12:30: EMS2017-15

Extension of a Non-Hydrostatic Dynamical Core into the Thermosphere

Daniel Griffin

12:30–12:45: EMS2017-29

Chemistry-climate model simulations of a mesospheric source of nitrous oxide

Christopher Kelly

12:45–13:00: Poster pitches

END OF ORAL PROGRAMME UP2.5/OSA1.9

UP3.3 Synoptic climatology

Lecture room: Gallery

Convener: Radan Huth; Rasmus Benestad

11:15–11:45: EMS2017-870

Global intensification in observed short-duration rainfall extremes (solicited)

Hayley Fowler

11:45–12:00: EMS2017-464

Circulation types and extreme daily precipitation in the Italian Peninsula

Maurizio Iannucci

12:00–12:15: EMS2017-82

A new precipitation and meteorological drought climatology based on weather patterns

Douglas Richardson

12:15–12:30: EMS2017-181

Analysis of automated circulation classifications in CMIP5 GCM projections for the British Isles

Jan Stryhal

12:30–12:45: EMS2017-372

Impacts of atmospheric stagnation events on Madrid's metropolitan area air quality and urban heat island

Domingo Rasilla Álvarez

12:45–13:00: Poster pitches

ORAL PROGRAMME UP3.3 CONTINUES ON TUESDAY, 14:00

OSA1.12 Ground-based profiling networks for improving weather forecasts: COST Action ES1303

Lecture room: Business school 1

Convener: Anthony Illingworth

Co-Conveners: Domenico Cimini

Thermodynamical Profiling

11:15–11:30: EMS2017-838

Calibration and standardization efforts for a network operation of ground-based microwave radiometers

Bernhard Pospichal

11:30–11:45: EMS2017-508

Microwave temperature profiles from ground to the stratopause

Francisco Navas-Guzmán

11:45–12:00: EMS2017-599

Application of Coherent Doppler Lidar in Boundary Layer Observation (solicited)

Kohin Hirano

12:00–12:15: EMS2017-775

Marine wind profiles measured by a wind-lidar - ability of WRF predict marine wind profiles

Ekaterina Batchvarova

12:15–12:30: EMS2017-514

Turbulence classification of the atmospheric boundary-layer for Doppler wind lidar networks

Tobias Marke

12:30–12:45: EMS2017-768

Comparison and Synergy of MWR and Doppler lidar for ABL retrievals

Umar Saeed

12:45–13:00: EMS2017-794

An uncertainty estimate for windprofilers in a turbulent atmosphere

Jan H. Schween

ORAL PROGRAMME OF OSA1.12 CONTINUES ON TUESDAY, 14:00

OSA2.8/ES1.7 Atmospheric effects on humans: Air quality, biometeorology, urban climate and UV-radiation (co-organized)

Lecture room: The Theatre

Convener: Andreas Matzarakis; Charles Chemel; Vincent-Henri Peuch

Co-Conveners: Alexander Baklanov; Astrid Manders; Tanja Cegnár; Leena Järvi; K. Heinke Schlutzen

11:15–11:45: EMS2017-352

Impacts of Land Cover Change and Urban Parameterization Scheme on Near Surface Temperature and Wind speed using UM

Seon-Ok Hong

11:45–12:00: EMS2017-94

Towards processing chains to estimate the urban heat island intensity using FOSS tools

Jérémy Bernard

12:00–12:15: EMS2017-475

Urban climate evaluation in Regional Climate Modeling: analysis of a coupled modeling approach

Maxime Daniel

12:15–12:30: EMS2017-730

Investigation of urban-caused mesoclimatic features of Moscow megacity

Mikhail Varentsov

12:30–12:45: EMS2017-562

Characterisation of the urban heat island effect over Barcelona city (NE Spain)

Maria-Dolors Martinez

12:45–13:00: EMS2017-802

Urban climate impacts on the daily temperature and relative humidity cycles using multi-site measurements in Budapest

Rita Pongracz

ORAL PROGRAMME OF OSA2.8/ES1.7 CONTINUES ON TUESDAY, 14:00

Tuesday, 14:00–16:00

UP3.3 Synoptic climatology

Lecture room: Gallery

Convener: Radan Huth; Rasmus Benestad

14:00–14:15: EMS2017-118

The relation between surface wind regimes and synoptic variables using self-organizing maps
Sigalit Berkovic

14:15–14:30: EMS2017-495

Multidecadal to Centennial Surface Wind Variability Over Northeastern North America Via Statistical Downscaling: Seasonal Characterization and Methodological Uncertainty
Etor E. Lucio-Eceiza

14:30–14:45: EMS2017-292

Solar radiation map on the Atlantic ocean
Mélodie Trolliet

END OF ORAL PROGRAMME UP3.3

ORAL PROGRAMME OF UP3.2 CONTINUES IN THIS ROOM

UP3.2 Mid-latitude atmospheric teleconnections

Lecture room: Gallery

Convener: Javier Garcia-Serrano

Co-Conveners: Yannick Peings; Paolo Davini

Extratropical teleconnections

14:45–15:15: EMS2017-790

Drivers of the multidecadal NAO variability: status and prospects (solicited)
Hervé Douville

15:15–15:30: EMS2017-196

Large ensembles of uncoupled and coupled model experiments on the influence of Arctic sea ice decline on mid-latitude weather and climate
Tido Semmler

15:30–15:45: EMS2017-835

Emergent constraints to understand CMIP5 model diversity in simulating the teleconnection between Atlantic Multidecadal Variability and European temperature
Saïd Qasmi

15:45–16:00: EMS2017-14

Why the summer warming appears more dramatic over Europe-West Asia and Northeast Asia after the mid-1990s?
Xiaowei Hong

ORAL PROGRAMME OF UP3.2 CONTINUES ON TUESDAY, 16:30

UP3.4 Paleoclimatology and Historical Climatology

Lecture room: Business school 2

Convener: Rudolf Brazdil

Co-Conveners: Ricardo García-Herrera; Fidel González-Rouco

14:00–14:15: EMS2017-116

Enhanced intensity of global tropical cyclones during the mid-Pliocene warm period
Qing Yan

14:15–14:30: EMS2017-141

Reconstruction of climatic conditions and typhoons around Japan in the late 19th century based on instrumental meteorological records
Masumi Zaiki

14:30–14:45: EMS2017-191

Reconstruction of the intensity and track of the historic typhoon of 17 September 1828 based on meteorological observations from Nagasaki, Japan
Takehiko Mikami

14:45–15:00: EMS2017-157

Project INCITE: Tracking the monsoon history before the 20th Century
David Gallego

15:00–15:15: EMS2017-664

Last Millennium atmosphere and soil temperature coupling in surrogate climates: implications for borehole temperature reconstructions
Camilo Melo Aguilar

15:15–15:30: EMS2017-323

Global patterns in the hydroclimate of the last millennium
Pedro Roldán

15:30–15:45: EMS2017-399

Drought reconstructed from oak (*Quercus* spp.) ring width chronology for the Czech Lands, AD 1040-2015
Petr Dobrovolný

15:45–16:00: EMS2017-272

Reconstruction of summer temperatures since the 18th century in western Japan
Junpei Hirano

ORAL PROGRAMME OF UP3.4 CONTINUES ON TUESDAY, 16:30

OSA1.12 Ground-based profiling networks for improving weather forecasts: COST Action ES1303

Lecture room: Business school 1

Convener: Anthony Illingworth
Co-Conveners: Domenico Cimini

Cloud and Aerosol Profiling

14:00–14:15: EMS2017-662

The E-PROFILE/TOPROF network of automatic lidars and ceilometers for cloud and aerosol/ash profiling
Maxime Hervo

14:15–14:30: EMS2017-163

Ceilometer Firmware Intercomparison at the Met Office, UK
Cristina Charlton-Perez

14:30–14:45: EMS2017-174

The influence of water vapor absorption on ceilometer measurements: Relevance for aerosol retrievals
Matthias Wiegner

14:45–15:00: EMS2017-294

A model-assisted retrieval of aerosol properties from elastic backscatter lidar and ceilometer measurements
Davide Dionisi

15:00–15:15: EMS2017-481

Automatic Ceilometer-based Backscatter Coefficient Retrieval - Improving Network Capabilities by combining Ceilometer Networks and AERONET
Birgit Heese

15:15–15:30: EMS2017-539

ALC profiling: valuable information to support the radiation fog forecasting in the airports
Quentin Laffineur

15:30–15:45: EMS2017-560

Characterising the atmospheric boundary layer based on ceilometer observations
Simone Kotthaus

15:45–16:00: EMS2017-616

Calibration of the Met Office Ceilometer Network using the Cloud Method
Emma Hopkin

ORAL PROGRAMME OF OSA1.12 CONTINUES ON TUESDAY, 16:30

OSA2.2 Reducing Weather Risks to Transport: air, sea and land

Lecture room: Blue Room

Convener: Fraser Ralston
Co-Conveners: Christine Le Bot

14:00–14:15: EMS2017-331

Forecast Horizon of Low-Visibility Conditions at Vienna Airport
Sebastian Dietz

14:15–14:30: EMS2017-208

Application of Analogue Ensemble in Horizontal Visibility Forecasting
Zoltan Tuba

14:30–14:45: EMS2017-641

Wind Urchin for Turbulence Measurement at Airports
Derek Kearney

14:45–15:00: EMS2017-149

The connected vehicles experimentation dedicated to road weather
Ludovic Bouilloud

15:00–15:15: EMS2017-606

Assessing weather related risks to the German transport infrastructure
Stephanie Hänsel

15:15–15:55:

Panel discussion on "Road transport snow/ice hazards - mitigation, safety and communication"
 Details see page 23.

15:55–16:00: Poster pitches

END OF ORAL PROGRAMME OSA2.2

OSA2.8/ES1.7 Atmospheric effects on humans: Air quality, biometeorology, urban climate and UV-radiation (co-organized)

Lecture room: The Theatre

Convener: Andreas Matzarakis; Charles Chemel; Vincent-Henri Peuch

Co-Conveners: Alexander Baklanov; Astrid Manders; Tanja Cegnár; Leena Järvi; K. Heinke Schluenzen

14:00–14:15: EMS2017-682

Using WUDAPT to explore urban exposure to climate hazards in selected cities

Gerald Mills

14:15–14:30: EMS2017-195

Modelling urban heat load mitigation strategies on an example of the city of Graz

Maja Zuvela-Aloise

14:30–14:45: EMS2017-688

Evaluation of a statistical-dynamical downscaling methodology for the urban heat island, building energy consumption and human thermal comfort

Robert Schoetter

14:45–15:00: EMS2017-71

Modelling of heat stress in micro scale - Sensitivity studies of thermal comfort indices and influencing parameters

Andreas Matzarakis

15:00–15:15: EMS2017-732

Heat mitigation with shade trees: the role of landscape design and tree parameters in ameliorating summertime heat stress in a Central-European square

Csilla Gál

15:15–15:30: EMS2017-808

The impact of urban morphology and land cover on the sensible heat flux retrieved by simultaneous satellite and in-situ observations

Lech Gawuc

15:30–15:45: EMS2017-362

Impact of rivers and lakes on the thermal microclimate - a human-biometeorological perspective

Jana Fischereit

15:45–16:00: EMS2017-564

A thermal comfort survey of the UK

Mark McCarthy

ORAL PROGRAMME OF OSA2.8/ES1.7 CONTINUES ON TUESDAY, 16:30

Tuesday, 16:30–18:00

UP3.2 Mid-latitude atmospheric teleconnections

Lecture room: Gallery

Convener: Javier Garcia-Serrano

Co-Conveners: Yannick Peings; Paolo Davini

Tropics vs. Extratropics

16:30–16:45: EMS2017-137

Respective roles of direct GHG radiative forcing and induced Arctic sea ice loss on the Northern Hemisphere atmospheric circulation

Thomas Oudar

16:45–17:00: EMS2017-857

Changes in the wintertime ENSO teleconnection over the Northern Hemisphere in a warmer background state

Marie Drouard

17:00–17:15: EMS2017-459

Predictability of winter precipitation in Central Asia - The role of tropical and extratropical drivers

Lars Gerlitz

17:15–17:30: EMS2017-502

Interannual tropical Pacific sea surface temperature anomalies teleconnection to Northern Hemisphere atmosphere in November.

Martin Peter King

17:30–17:45: EMS2017-354

What can we learn from energy transports in the atmosphere?

Ghyslaine Boschat

17:45–18:00: EMS2017-764

Which Teleconnections are Robust to Internal Atmospheric Variability?

Swen Brands

END OF ORAL PROGRAMME UP3.2

UP3.4 Paleoclimatology and Historical Climatology

Lecture room: Business school 2

Convener: Rudolf Brazdil

Co-Conveners: Ricardo García-Herrera; Fidel González-Rouco

16:30–16:45: EMS2017-251

A 305 year monthly rainfall series for the Island of Ireland (1711-2016)

Conor Murphy

16:45–17:00: EMS2017-202

A 250 year drought catalogue for the island of Ireland (1765-2015)

Simon Noone

17:00–17:15: EMS2017-728

Climatological triggers of major plague outbreaks in late medieval England

Kathleen Pribyl

17:15–17:30: EMS2017-53

The weather diaries of a hunting and fishing estate in Connemara, Co. Galway, Ireland from 1898 to 1972.

Kieran Hickey

17:30–17:45: EMS2017-451

Lightning Balls in Estonia

Andres Tarand

17:45–18:00: Poster pitches

END OF ORAL PROGRAMME UP3.4

OSA1.12 Ground-based profiling networks for improving weather forecasts: COST Action ES1303

Lecture room: Business school 1

Convener: Anthony Illingworth

Co-Conveners: Domenico Cimini

Networks and Synergy

16:30–16:45: EMS2017-737

A Ground-based Network of Boundary Layer Thermodynamic Profilers: The Infrared Option (solicited)

David D. Turner

16:45–17:00: EMS2017-787

Towards using a ground-based network of microwave radiometers and water vapor lidars for improving short-term weather forecasts

Ulrich Löhnert

17:00–17:15: EMS2017-745

An emerging European Doppler lidar network for meteorological applications
Ewan O'Connor

17:15–17:30: EMS2017-683

A better understanding of the atmospheric boundary layer structure using ALCs, MWRs and Doppler lidars in the framework of TOPROF
Juan Antonio Bravo Aranda

17:30–17:45: EMS2017-827

Towards an European continental-scale network of ground-based microwave radiometers
Domenico Cimini

17:45–18:00: Final Discussion**END OF ORAL PROGRAMME OSA1.12**

OSA2.8/ES1.7 Atmospheric effects on humans: Air quality, biometeorology, urban climate and UV-radiation (co-organized)

Lecture room: The Theatre

Convener: Andreas Matzarakis; Charles Chemel; Vincent-Henri Peuch

Co-Conveners: Alexander Baklanov; Astrid Manders; Tanja Cegnar; Leena Järvi; K. Heinke Schluenzen

16:30–16:45: EMS2017-72

The Heat Health Warning System in Germany
Andreas Matzarakis

16:45–17:00: EMS2017-462

Determining the impact of climate change on population heat exposure in mid-latitude conurbations
Paul Alexander

17:00–17:15: EMS2017-621

Climatology of thermal comfort conditions in Russian big cities during heat wave events in 1966-2015
Pavel Konstantinov

17:15–17:30: EMS2017-589

Earth System Services communication: bringing science to society
Marta Terrado

17:30–17:45: EMS2017-577

A new service providing daily UV doses computed from shortwave downwelling radiation at surface from the HelioClim-3v5 database
Claire Thomas

17:45–18:00: EMS2017-288

Clouds formed by human causes: an analysis of 3-years period of observations.
Jordi Mazon

END OF ORAL PROGRAMME OSA2.8/ES1.7

ES3.1 Education and training: At schools, for the public, for stakeholders and professionals

Lecture room: Blue Room

Convener: Tomas Halenka

Co-Conveners: Heikki Tuomenvirta

16:30–16:45: EMS2017-480

CRESCENDOSchools: European network of schools on Earth system modelling and climate change
Helena Martins

16:45–17:00: EMS2017-867

Climate Change Negotiations Pack for Schools
Sylvia Knight

17:00–17:15: EMS2017-837

Co-creation of an environment and resources education book with schoolchildren from low STEM engagement areas
Fergus McAuliffe

17:15–17:30: EMS2017-797

Analyzing meteorological phenomena from the ISS in classrooms - from e-learning to m-learning
Andreas Rienow

17:30–17:45: EMS2017-353

Japan & Bangladesh's Compulsory Education of Weather, Climate and Climate Change
Yukimasa Tsubota

17:45–18:00: EMS2017-868

Anticipando la Crecida - Anticipating the Flood: Tools for the contribution in risk and disaster management floods at Buenos Aires, Argentina
Federico Robledo

18:00–18:15: EMS2017-240

aiRthermo: an R Package designed to help students understanding atmospheric thermodynamics
Jon Sáenz

END OF ORAL PROGRAMME ES3.1

Awards Session

Lecture room: The Theatre

Time: 18:15–19:30

Details see page 14.



EUMETSAT METEOROLOGICAL SATELLITE

CONFERENCE 2018

EUMETSAT has organised a meteorological satellite conference every year for over thirty years. It is held in a different country each year and usually co-hosted by various Member and Cooperating States. Over the years, the conference has become a key annual event for the meteorological and scientific communities.

In 2018 the EUMETSAT conference will be held in Estonia's capital Tallinn, one of the best preserved medieval cities in Northern Europe, and will be supported by the Estonian Environment Agency, the national meteorological service for Estonia. It is very fitting that the event should be held here in 2018, as in this year The Republic of Estonia will be celebrating its centenary.

Sessions will be held on such topics as current and future meteorological satellite systems and data access, preparing for MTG and EPS-SG, nowcasting and high-resolution NWP, atmospheric chemistry monitoring and applications, and monitoring the climate and oceans. The conference location also lends itself to discuss the topics of observations for the Baltic Basin, and Arctic monitoring and applications.

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

Abstract submission deadline is 31 January 2018.

TALLIN. ESTONIA.
17 - 21 SEPTEMBER 2018



REPUBLIC OF ESTONIA
ENVIRONMENT AGENCY



Wednesday, 09:00–09:30

Keynote Lecture on Engagement with Society (ES)

Being as disciplined in our engagement with society as we are in our scientific research
Keith L. Seitter Executive Director, American Meteorological Society

Wednesday, 09:45–10:45

Upload of presentations for sessions starting at 9:45 is possible from 8:40 to 09:00 and from 09:15.

UP1.6 Progress in measurement technology - new sensors, instruments, and systems (Manufacturers' session)

Lecture room: Blue Room

Convener: Fred C. Bosveld

Co-Conveners: Frank Beyrich

09:45–10:00: EMS2017-540

Enabling predictive maintenance for weather system networks

Martino Fantato

10:00–10:15: EMS2017-876

Novel Soiling Detection System for Solar Panels

Marc Korevaar

10:15–10:30: EMS2017-816

Measure the invisible water

Hans van Rheenen

END OF ORAL PROGRAMME UP1.6

UP3.2 Mid-latitude atmospheric teleconnections

Lecture room: Gallery

Convener: Javier Garcia-Serrano

Co-Conveners: Yannick Peings; Paolo Davini

From the Stratosphere...

09:45–10:15: EMS2017-860

Extratropical teleconnections of the stratospheric quasi-biennial oscillation (QBO): observations, models, and predictability (solicited)

James Anstey

10:15–10:30: EMS2017-729

Stratospheric Influence on the Mechanisms and Potential Predictability of the MJO-NAM Teleconnections in the S2S Models

Laura Ciasto

10:30–10:45: EMS2017-649

Pathways leading to cold climate extremes over Eurasia in the MPI-M Grand Ensemble Simulations

Evangelos Tyrlis

END OF ORAL PROGRAMME UP3.2

OSA1.2 Forecasting, nowcasting and warning systems

Lecture room: The Theatre

Convener: Yong Wang; Timothy Hewson

Co-Conveners: Bernhard Reichert; Ken Mylne; Fulvio Stel

Multi-faceted Post-processing

09:45–10:00: EMS2017-259

Seamless probabilistic Analysis and Prediction in very High Resolution (SAPHIR)

Yong Wang

10:00–10:15: EMS2017-378

Model Output Statistics for Point Forecasts at Deutscher Wetterdienst: Current Status and Future Developments

Andreas Veira

10:15–10:30: EMS2017-465

Model output statistics (MOS) development at FMI

Jussi S. Ylhäisi

10:30–10:45: EMS2017-187

Introduction on the Statistical Postprocessing Guidance for 2018 PyeongChang Olympic Games

Juntae Choi

ORAL PROGRAMME OF OSA1.2 CONTINUES ON WEDNESDAY, 11:15

OSA1.8/ES3.2 Forecast verification (co-organized)

Lecture room: Business school 2

Convener: Pertti Nurmi

Co-Conveners: Anna Ghelli; Manfred Dorninger; Marion Mittermaier

09:45–10:00: EMS2017-487

Ensemble verification: Old scores, new perspectives
Sabrina Wahl

10:00–10:15: EMS2017-550

Verification of forecast ensembles by allowing for observation uncertainties in complex terrain
Manfred Dorninger

10:15–10:30: EMS2017-193

Verification of probabilistic rainfall forecasts: Getting new insights into forecast services
Harry Jack

10:30–10:45: EMS2017-112

Assessing the hourly precipitation forecast skill with the fractions skill score
Zhao Bin

ORAL PROGRAMME OF OSA1.8 CONTINUES ON WEDNESDAY, 11:15

OSA2.6 Energy Meteorology

Lecture room: Business school 1

Convener: Sven-Erik Gryning

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

09:45–10:00: EMS2017-386

An innovative approach for the simulation of the regional photovoltaic power generation in energy scenarios
Yves-Marie Saint-Drenan

10:00–10:15: EMS2017-689

Improving short-term irradiance forecasts in the tropics with ensemble data assimilation in limited-area models using Meteosat-8 IODC observations
Frederik Kurzrock

10:15–10:30: EMS2017-135

Detection of forecast busts on regional surface solar radiation using multi-center grand ensemble forecast
Fumichika Uno

10:30–10:45: EMS2017-25

The impact of different PV module configurations on balancing needs of a highly renewable European power system
Kabitri Chattopadhyay

ORAL PROGRAMME OF OSA2.6 CONTINUES ON WEDNESDAY, 11:15

Wednesday, 11:15–13:00

UP1.5 Atmospheric measurements: Experiments and long-term operation using ground-, aircraft- and satellite-based instrumentation

Lecture room: Blue Room

Convener: Frank Beyrich

Co-Conveners: Fred C. Bosveld; Jens Bange

Long-term Monitoring and Remote Sensing

11:15–11:45: EMS2017-852

Sixty years of atmospheric research at Mace Head and counting - highlights and future challenges (solicited)

Darius Ceburnis

11:45–12:00: EMS2017-779

The Nocturnal Surface Energy Budget at Cabauw

Fred C. Bosveld

12:00–12:15: EMS2017-815

Boundary-layer characteristic in a coastal site using long-term sodar data

Damyan Barantiev

12:15–12:30: EMS2017-91

Area-averaged sensible and latent heat flux measurements with the newly available MicroWave Scintillometer RPG-MWSC- 160

Eileen Päsche

12:30–12:45: EMS2017-395

Detection and analysis of convective cloud features using ground- and satellite - based remote sensing instrumentation

Simona Andrei

12:45–13:00: EMS2017-461

GAIA-CLIM: Improving the utility of the non-space segment to characterize satellite measurements

Peter Thorne

ORAL PROGRAMME OF UP1.5 CONTINUES ON WEDNESDAY, 14:00

OSA1.2 Forecasting, nowcasting and warning systems

Lecture room: The Theatre

Convener: Yong Wang; Timothy Hewson

Co-Conveners: Bernhard Reichert; Ken Mylne; Fulvio Stel

11:15–11:30: EMS2017-311

A new strategy for integrated Post-Processing and Verification for the Convective Scale age

Ken Mylne

Specific Applications

11:30–11:45: EMS2017-473

Urban fine-scale weather forecasting reveals Amsterdam weather conditions with unprecedented detail

Reinder Ronda

11:45–12:00: EMS2017-724

Spatial calibration of Ensemble Forecasts Using High Resolution Analyses

Irene Schicker

12:00–12:15: EMS2017-210

Thunderstorm24: A publicly available website, focused on convection and lightning nowcasting and forecasting over Europe, based on the WRF numerical prediction model and NWC SAF products

Athanassios Karagiannidis

12:15–12:30: EMS2017-454

Analog-based high wind speed predictions in complex topography

Iris Odak Plenkovic

12:30–12:45: EMS2017-147

Using conditional probability for short-range forecasting of visibility at Zagreb Airport

Marko Zoldoš

12:45–13:00: EMS2017-413

Nowcasting Foehn using the Adaboost machine learning algorithm

Michael Sprenger

END OF ORAL PROGRAMME OSA1.2

OSA1.8/ES3.2 Forecast verification (co-organized)

Lecture room: Business school 2

Convener: Pertti Nurmi

Co-Conveners: Anna Ghelli; Manfred Dorninger; Marion Mittermaier

11:15–11:30: EMS2017-11

Categorical Verification of Site-Specific Weather Events Using Local Climatologies
Emily Stewart

11:30–11:45: EMS2017-819

The link between catchment precipitation forecast skill and spread to that of downstream ensemble hydrological forecasts
Gabriella Csima

11:45–12:00: EMS2017-705

Operational user-centric verification of severe weather warnings
Evelyn Müller

12:00–12:15: EMS2017-97

17 years 'Berlin Weather Forecasting Contest' - a unique verification tool
Klaus Knüpfer

12:15–12:30: EMS2017-47

Verifying and Validating Impact Models
Rebecca Hemingway

12:30–12:45: EMS2017-394

Results of the Fog Forecast Verification in TAF Forecasts for Zagreb Airport
Jadran Jurkovic

12:45–13:00: EMS2017-785

Warnings verification - all at sea
Michael Sharpe

ORAL PROGRAMME OF OSA1.8 CONTINUES ON WEDNESDAY, 14:00

OSA2.6 Energy Meteorology

Lecture room: Business school 1

Convener: Sven-Erik Gryning

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

11:15–11:30: EMS2017-271

Shadow camera system for the validation of nowcasted plant-size irradiance maps
Pascal Kuhn

11:30–11:45: EMS2017-365

Validation of Direct Normal Irradiance from Meteosat Second Generation
Angela Meyer

11:45–12:00: EMS2017-96

Difference in the performance of satellite based DNI nowcasts in complex and flat terrain
Stefan C. Müller

12:00–12:15: EMS2017-406

Data assimilation for short-range solar radiation forecasts
Magnus Lindskog

12:15–12:30: EMS2017-155

Satellite-based DNI nowcasting based on a sectoral atmospheric motion approach
Marion Schroedter-Homscheidt

12:30–12:45: EMS2017-390

Estimation of cloud coverage/ type and aerosol optical depth with all-sky imagers at Plataforma Solar de Almeria, Spain
Andreas Kazantzidis

12:45–13:00: EMS2017-791

Optimized DNI forecast using combinations of nowcasting methods from the DNICast project
Lourdes Ramirez

ORAL PROGRAMME OF OSA2.6 CONTINUES ON WEDNESDAY, 14:00

OSA3.1 Climate monitoring: data rescue, management, quality and homogenization

Lecture room: Gallery

Convener: Manola Brunet-India

Co-Conveners: Ingeborg Auer; Dan Hollis; Victor Venema

11:15–11:45:

Keynote lecture on marine humidity observations by Kate Willet

Climate datasets development

11:45–12:00: EMS2017-324

Homogenisation of Monthly Maximum and Minimum Air Temperatures in Ireland

Mary Curley

12:00–12:15: EMS2017-62

Relative homogenisation of a dense monthly precipitation station network in Ireland

John Coll

12:15–12:30: EMS2017-556

Global in-situ climatology datasets: A comparison of data sources and their use within a routine quality control process

Ian Simpson

12:30–12:45: EMS2017-312

Automatic homogenization packages comparison: results of the MULTITEST project

José A. Guijarro

12:45–13:00: EMS2017-326

An Assessment of Algorithm Choice on the Calculation of Daily Mean Air Temperature in Ireland

Daniel Ward

ORAL PROGRAMME OF OSA3.1 CONTINUES ON WEDNESDAY, 14:00

Wednesday, 14:00–16:00**UP1.5 Atmospheric measurements: Experiments and long-term operation using ground-, aircraft- and satellite-based instrumentation****Lecture room:** Blue Room**Convener:** Frank Beyrich**Co-Conveners:** Fred C. Bosveld; Jens Bange**Airborne Measurements****14:00–14:30: EMS2017-322**Trends in airborne atmospheric observations (solicited)
Bruno Neininger**14:30–14:45: EMS2017-603**In-situ measurement of the airflow over an escarpment with a UAV
Martin Schoen**14:45–15:00: EMS2017-549**First results on the concentration of biogenic airborne particles in the ABL collected with a new developed particle sampling unit carried by a multirotor UAV.
Claudio Crazzolara**15:00–15:15: EMS2017-44**Black Carbon and Aerosol Absorption Measurements during Global Circumnavigation and Arctic Campaigns
Griša Močnik**15:15–15:30: EMS2017-548**Mode-S EHS derived wind and temperature: methodology, quality and availability
Siebre de Haan**15:30–15:45: EMS2017-302**Results from an experimental hot-air balloon flight for measuring low level winds in the surroundings of Cabauw
Evert I. F. de Bruijn**15:45–16:00: Poster pitches****ORAL PROGRAMME OF UP1.5 CONTINUES ON WEDNESDAY, 16:30****OSA1.8/ES3.2 Forecast verification (co-organized)****Lecture room:** Business school 2**Convener:** Pertti Nurmi**Co-Conveners:** Anna Ghelli; Manfred Dörninger; Marion Mittermaier**14:00–14:15: EMS2017-431**Verification of Flare Forecasts at the Met Office Space Weather Operations Centre
Sophie Murray**14:15–14:30: EMS2017-586**The final approach? Verification of Terminal Aerodrome Forecasts
Michael Sharpe**END OF ORAL PROGRAMME OSA1.8/ES3.2
ORAL PROGRAMME OF OSA1.7 CONTINUES IN THIS ROOM****OSA1.7 Forecasters' Session****Lecture room:** Business school 2**Convener:** Antti Mäkelä**Co-Conveners:** Henri Nyman; Evelyn Cusack; Christian Csekits**14:30–14:45: EMS2017-162**Combining high-resolution numerical weather predictions with human expertise for localized weather forecasts
Daniel Cattani**14:45–15:00: EMS2017-303**Warnings verification at the Meteorological and Hydrological Service of Croatia
Lovro Kalin**15:00–15:15: EMS2017-458**Is it time for 3D visualisation (?) - illustrations using a new algorithm for jet core identification
Tim Hewson**15:15–15:30: EMS2017-619**The use of ensemble information for medium range forecasts at the Austrian Meteorological Service
Christian Csekits**15:30–15:45: EMS2017-818**High impact weather service at the Finnish Meteorological Institute
Henri Nyman**15:45–16:00: EMS2017-851**Warning thresholds for thunderstorm intensity based on lightning location data
Joonas Koskela**END OF ORAL PROGRAMME OSA1.7**

OSA2.6 Energy Meteorology

Lecture room: Business school 1

Convener: Sven-Erik Gryning

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

14:00–14:15: EMS2017-600

Verification of DNI Angular Distribution Measured at 670nm by a Sunshape Profiling Irradiometer

Peter Armstrong

14:15–14:30: EMS2017-104

Estimation of regional photovoltaic power generation using Japan's new geostationary meteorological satellite Himawari-8

Hideaki Ohtake

14:30–14:45: EMS2017-199

High-resolution global irradiance monitoring from photovoltaic systems

Tina Buchmann

14:45–15:00: EMS2017-339

The National Solar Radiation Database (NSRDB) and its use in Solar Applications

Manajit Sengupta

15:00–15:15: EMS2017-376

Comparing several satellite-derived databases of surface solar radiation in Morocco

Mathilde Marchand

15:15–15:30: EMS2017-722

Impact of climate change on renewable power resources and consequently on a future highly renewable European power system

Markus Schlott

15:30–15:45: EMS2017-489

Anticipating extreme wind and pv power forecast errors using ultra-large ensembles

Garrett Good

15:45–16:00: EMS2017-618

The relationship between wind power, electricity demand and winter weather patterns in Great Britain

Hazel Thornton

ORAL PROGRAMME OF OSA2.6 CONTINUES ON WEDNESDAY, 16:30

OSA3.1 Climate monitoring: data rescue, management, quality and homogenization

Lecture room: Gallery

Convener: Manola Brunet-India

Co-Conveners: Ingeborg Auer; Dan Hollis; Victor Venema

14:00–14:15: EMS2017-679

Quality assessment of bidirectional reflectance factor produced using visible imagers on board geostationary satellites.

Youva Aoun

14:15–14:45: EMS2017-590

STILLING project: Advances in the compilation and homogenization of historical wind speed data for the assessment of the stilling phenomenon (solicited)

Cesar Azorin-Molina

14:45–15:00: EMS2017-478

Surface Wind Observational Database over Europe: Compilation and Quality Control

Cristina Rojas-Labanda

15:00–15:15: EMS2017-513

Analyzing and monitoring of data quality by parallel measurements from German climate reference stations

Lisa Hannak

15:15–15:30: EMS2017-572

Homogenization of Swedish daily temperature data

Erik Engström

15:30–15:45: EMS2017-106

Homogenization of ECA&D temperature series: finalization and validation

Antonello A. Squintu

15:45–16:00: EMS2017-223

The high-quality UERRA rescued dataset; QC procedures and results

Joan Ramon Coll

ORAL PROGRAMME OF OSA3.1 CONTINUES ON WEDNESDAY, 16:30

ES2.1 Communication and Media

Lecture room: The Theatre

Convener: Tanja Cegnar

14:00–14:15: EMS2017-825

Why are we not so effective: reflections on air pollution and climate change policies
Dario B. Giaioti

14:15–14:30: EMS2017-874

Communicating the new Copernicus Climate Change Service (solicited)
Dick Dee

14:30–14:45: EMS2017-855

What can the insurance industry contribute to better weather and climate information? (solicited)
Peter Hoeppe

14:45–15:00:

EMS Outreach & Communication Award

15:00–15:15: EMS2017-1

Content is king - nothing but real facts in media weather information
Christian König

15:15–15:30: EMS Journalist Award

15:30–15:45: EMS2017-684

Weather forecasting services at the National Observatory of Athens: available products and ways of presentation to the public through www.meteo.gr
Konstantinos Lagouvardos

15:45–16:00: EMS2017-532

European Cooperation on Storm Naming
Evelyn Cusack

ORAL PROGRAMME OF ES2.1 CONTINUES ON WEDNESDAY, 16:30



THE EMS2017 FESTA
Thursday, 7 September 2017
Cafe en Seine
40 Dawson Street, Dublin 2

Participation is by registration only.
Be aware that the registration deadline was 22 Aug 2017.
Check at the registration desk for any returned tickets.
Registration includes:

- An all-vegetarian buffet that contains three hot dishes, sides, salads, dressings and two desserts;
- Three tokens for drinks to choose from a pint of beer, 330ml bottle of beer, spirit & splash, or a glass of house wine;
- Jugs of tap water.

Drinks in addition to those taken with tokens can be bought at any time from the bar.

Wednesday, 16:30–18:00

UP1.5 Atmospheric measurements: Experiments and long-term operation using ground-, aircraft- and satellite-based instrumentation

Lecture room: Blue Room

Convener: Frank Beyrich

Co-Conveners: Fred C. Bosveld; Jens Bange

In-situ Turbulence Measurements & Others

16:30–16:45: EMS2017-780

Reference Crop Evapotranspiration: a new LSA SAF product

Henk A. R. de Bruin

16:45–17:00: EMS2017-706

EC-Frame - a versatile eddy-covariance software based on EC-PACK

Clemens Drüe

17:00–17:15: EMS2017-10

A roughness height parameterization method for different canopy structures

Xuelong Chen

17:15–17:30: EMS2017-746

Energy and CO₂ turbulent fluxes measurements on a floating platform at Alqueva reservoir, Portugal

Miguel Potes

17:30–17:45: EMS2017-542

Monitoring of natural carbon dioxide emissions using a network of low-cost sensors

Uwe Putze

17:45–18:00: EMS2017-373

Hail detection and probability using fuzzy logic and X-band single-polarization weather radar data

Vincenzo Capozzi

END OF ORAL PROGRAMME UP1.5

OSA2.4 Sub-seasonal-to-seasonal (s2s) predictions and societal applications

Lecture room: Business school 2

Convener: Ángel G. Muñoz

Co-Conveners: Laura Ferranti; Silvio Gualdi

16:30–16:45: EMS2017-121

Skillful subseasonal forecasts beyond two weeks over East Asia in the extended summer

Chueh-Hsin Chang

16:45–17:00: EMS2017-403

Enhanced seasonal predictability of the summer mean temperature in Central Europe favored by new dominant weather pattern

Peter Hoffmann

17:00–17:15: EMS2017-610

Predictability of the weather patterns that cause extreme electricity demand in the UK

Hazel Thornton

17:15–17:30: EMS2017-699

A new strategy to face climate variability at subseasonal to seasonal scale in agriculture

Stefano Materia

17:30–17:45: EMS2017-716

Impact of climate change on land suitability for nuts cultivation for the South-East Australia

Prakash Jha

17:45–18:00: EMS2017-871

MEDiterranean Services Chain based On climate PrEdictions

Silvio Gualdi

Potster pitches

END OF ORAL PROGRAMME OSA2.4

OSA2.6 Energy Meteorology

Lecture room: Business school 1

Convener: Sven-Erik Gryning

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

16:30–16:45: EMS2017-66

Making climate information tangible - GERICS Climate Impact Fact Sheets and Focus Paper for the energy sector

Elisabeth Viktor

16:45–17:00: EMS2017-397

How the German Weather Service optimizes its Ensemble forecasts for renewable energies and current-carrying capacity

Jonas von Schumann

17:00–17:15: EMS2017-793

Meteorological aspects of windturbine related noise and shadow flicker nuisances

Gertie Geertsema

17:15–18:00: Poster pitches

ORAL PROGRAMME OF OSA2.6 CONTINUES ON THURSDAY, 09:45

OSA3.1 Climate monitoring: data rescue, management, quality and homogenization

Lecture room: Gallery

Convener: Manola Brunet-India

Co-Conveners: Ingeborg Auer; Dan Hollis; Victor Venema

Miscellaneous

16:30–16:45: EMS2017-469

The Copernicus Climate Change Service Global Land and Marine Observations Database

Peter Thorne

16:45–17:00: EMS2017-565

NORDHOM - Nordic collaboration on establishing long-term homogeneous climate data records

Erik Engström

17:00–17:15: EMS2017-472

Dealing with incomplete and inhomogeneous data in deriving climatological normals for the 1981-2010 period in Croatia

Irena Nimac

17:15–17:30: EMS2017-290

Integrating data rescue into the classroom

Ciara Ryan

17:30–17:45: EMS2017-333

A community of Irish rain: mapping the development of the volunteer rainfall network in Ireland (1860-1870).

Mairead Treanor

17:45–18:00: Poster pitches

END OF ORAL PROGRAMME OSA3.1

ES2.1 Communication and Media

Lecture room: The Theatre

Convener: Tanja Cegnar

16:30–16:45: EMS2017-529

A survey about weather warning communication system in Tuscany.

Federica Zabini

16:45–17:00: EMS2017-506

The WMO Competency Framework - what does it mean for weather broadcasters?

Gerald Fleming

17:00–17:15: TV Weather Forecast Award

17:15–17:30: EMS2017-854

Television weather audience engagement in a digital atmosphere (solicited)

Jay Trobec

17:30–17:45: EMS2017-52

Weather at Sea - user survey about marine weather forecast

Kristine Gjesdal

17:45–17:50: Poster pitches

17:50–18:00: EMS2017-856

Know your audience

Tanja Cegnar

END OF ORAL PROGRAMME ES2.1

Posters Wednesday, 18:00–19:30

UP1.4 Towards a better understanding of wind gusts: observations, processes, predictions and verification

Convener: Sabrina Wahl

Co-Convener: Martin Göber, Susanna Mohr, Matthias Brueck

Poster pitches: Tue, 11:15, Blue Room

P81: EMS2017-81

Characteristics of convective wind gusts in Germany
Susanna Mohr

P82: EMS2017-278

Observed, reanalysed and simulated trends of daily peak wind gusts across Northern Europe
Lorenzo Minola

P83: EMS2017-537

Lombardia's surface wind characterization and extreme value analysis using 10m wind observations from a regional network of automatic stations
Davide Quadrelli

P84: EMS2017-788

Representation of wind gusts in regional reanalyses
Sabrina Wahl

P85: EMS2017-813

A Challenge for Wind Gust Forecasting with Convection-Permitting Models
Ken Mylne

P86: EMS2017-873

High-frequency wind and temperature structure during onsets of foehn
Hans Richner

END OF POSTER PROGRAMME UP1.4

UP1.5 Atmospheric measurements: Experiments and long-term operation using ground-, aircraft- and satellite-based instrumentation

Convener: Frank Beyrich

Co-Convener: Fred C. Bosveld, Jens Bange

Poster pitches: Wed, 15:45, Blue Room

P87: EMS2017-772

Monitoring meteorological variables in the mountainous region using multiple satellites remotely sensed data over the Korean Peninsula
Keunchang Jang

P88: EMS2017-88

Some aspects of long-term scintillometer operation and data quality control
Frank Beyrich

P89: EMS2017-401

Continuous boundary layer structure monitoring using CL31 Ceilometer
Florica Toanca

P90: EMS2017-357

ESA's Lidar Related Activities in Support of Earth Observation Missions
Dirk Schüttemeyer

P91: EMS2017-438

Peculiarities in comparing Eddy covariance measurements with Large Eddy simulations
Armin Raabe

P92: EMS2017-559

Estimation of actual evapotranspiration in two pine forests along the Túrria river basin (Eastern Spain), an eco-hydrological approach
Elisabeth Larsen

P93: EMS2017-853

Crowdsourcing urban air temperatures through smartphone battery temperatures: smartphones as an urban thermometer
Arjan Droste

P94: EMS2017-642

Sensor view and three-dimensional radiative transfer modelling for urban surface temperature estimation using ground based long wave infrared observations
William Morrison

P95: EMS2017-660

Measurements of Clouds Using 3D models Generated from Images Captured with Uncalibrated Cameras
Maya Shimono

P96: EMS2017-524

Rain events measured by two disdrometers in Prague (Czech Republic) and their comparison
Zuzana Chládková

END OF POSTER PROGRAMME UP1.5

UP2.5/OSA1.9 Meteorology, climate and space weather (co-organized)

Convener: Mauro Messerotti

Co-Convener: Suzy Bingham, David R. Jackson, Annika Seppälä, Peter Gallagher

Poster pitches: Tue, 12:45, Business school 2

P97: EMS2017-282

Raising the Roof: Vertical Coupling in an Extended Unified Model

Matthew Griffith

P98: EMS2017-531

Modeling Ensemble Forecasts of Solar Flares

Jordan Guerra Aguilera

END OF POSTER PROGRAMME UP2.5/OSA1.9

UP3.2 Mid-latitude atmospheric teleconnections

Convener: Javier Garcia-Serrano

Co-Convener: Yannick Peings, Paolo Davini

P99: EMS2017-146

Symmetry breaking of North Atlantic Oscillations: A new perspective

Dehai Luo

P100: EMS2017-200

Using NWP to assess the influence of the Arctic atmosphere on mid-latitude weather and climate

Tido Semmler

P101: EMS2017-275

Comparative analysis of different databases for study of the intra-annual variability of the Western Mediterranean Oscillation (WeMO)

Laia Arbiol-Roca

P102: EMS2017-726

Polar-mid latitude responses to sea ice reduction from long term coupled simulations

Camila Campos

P103: EMS2017-289

Influence of the upper-level Mediterranean Oscillation on the temperature variability in the Mediterranean basin

Darío Redolat

P104: EMS2017-315

The impacts of teleconnection patterns on the climatic conditions of the Pannonian region

Erzsébet Kristóf

P105: EMS2017-748

Snow-(N)AO teleconnection and its modulation by the Quasi-Biennial Oscillation

Yannick Peings

P106: EMS2017-27

Influence of Siberian autumn snow cover on the following winter atmospheric dynamics using modeling data and observations

Yuliya Martynova

P107: EMS2017-131

Increased Quasi-Stationarity and Persistence of Winter Ural Blocking and Eurasian Extreme Cold Events in Response to Arctic Warming: Insights from Observational analysis

Yao Yao

END OF POSTER PROGRAMME UP3.2

UP3.3 Synoptic climatology

Convener: Radan Huth, Rasmus Benestad

Poster pitches: Tue, 12:45, Gallery

P108: EMS2017-16

An objective circulation pattern classification for the Antarctic Peninsula Region

Klara Ambrozova

P109: EMS2017-35 (EMS YSTA)

A climatology of explosive cyclones using a multi tracking approach

Marco Reale

P110: EMS2017-76

The issues in the detection of teleconnection patterns by principal component analysis: Examples of the Arctic, Barents, and North Atlantic Oscillations

Romana Beranova

P111: EMS2017-108

An investigation into the spatial variability of air temperature field: Lithuania's case

Arūnas Bukantis

P112: EMS2017-133

Synoptic analysis of heat waves over Croatia 2012-2016

Dunja Plačko-Vršnak

P113: EMS2017-269

Proposed numerical definition of persistent cold air pools over the Carpathian Basin

Karolina Szabóné André

P114: EMS2017-348

Heavy Rainfall Related Weather Patterns during the Baiu Season and their Future Changes

Masamichi Ohba

P115: EMS2017-435

Climatological Study of Mediterranean Cyclones Affecting South-East of Europe between 1980 and 2016

Sabina Stefan

P116: EMS2017-443

An operative chain of probabilistic seasonal forecast based on circulation type classifications driven by an ensemble global model
Gianni Messeri

P117: EMS2017-596

How has the Northern Hemisphere circulation changed during the 20th century?
Vladimír Piskala

P118: EMS2017-758

Atmospheric moisture content over Europe and its circulation conditionings
Agnieszka Wypych

P119: EMS2017-761

Air masses typology for the territory of Poland - methodological approach
Michał Rożycki

P120: EMS2017-655

Heavy precipitation over Central Europe and the role of atmospheric cyclone track types
Michael Hofstätter

P121: EMS2017-528

Drivers of precipitation extremes in Poland in different spatial and temporal scales
Joanna Wibig

END OF POSTER PROGRAMME UP3.3

UP3.4 Paleoclimatology and Historical Climatology

Convener: Rudolf Brazdil

Co-Convener: Ricardo García-Herrera, Fidel González-Rouco

Poster pitches: Tue, 17:45, Business school 2

P122: EMS2017-158

Instrumental evidence of an unusually strong West African Monsoon in the 19th Century
David Gallego

P123: EMS2017-159

Instrumental evidence of an increasing trend of the Australian monsoon strength since the 19th Century
David Gallego

P124: EMS2017-173

The evolution of the Western North Pacific Summer Monsoon during the 20th Century
Inmaculada Vega

P125: EMS2017-330

Historical droughts in central Europe and their large-scale climate drivers
Jiří Mikšovský

P126: EMS2017-430

The non-stable influence of the Indian summer monsoon on the Etesian winds through ships' logbooks
F.de Paula Gómez-Delgado

P127: EMS2017-463

Windstorms in the Czech Lands I: Wind speeds and 'stilling'
Rudolf Brázdil

P128: EMS2017-494

Windstorms in the Czech Lands II: Outstanding windstorms of the 18th-19th centuries
Rudolf Brázdil

P129: EMS2017-503

Windstorms in the Czech Lands III: Severe windstorms and forests
Rudolf Brázdil

END OF POSTER PROGRAMME UP3.4

OSA1.2 Forecasting, nowcasting and warning systems

Convener: Yong Wang, Timothy Hewson

Co-Convener: Bernhard Reichert, Ken Mylne, Fulvio Stel

P1: EMS2017-85

Calibrating ensemble weather forecasts for warnings of extreme weather events
Kaisa Ylinen

P2: EMS2017-170

New ECMWF products: Probability of Precipitation Type and Most Probable Precipitation Type
Estíbaliz Gascón

P3: EMS2017-241

Statistical short-term wind forecast at a buoy in the Bay of Biscay (Spain)
Sheila Carreño-Madinabeitia

P4: EMS2017-249

ANYWHERE PROJECT (EnhANCing emergencY management and response to extreme Weather and climate Events)
Laura Pedemonte

P5: EMS2017-519

POLARA - an environment and software framework to develop nowcasting systems
Markus Kunert

P6: EMS2017-555

Development of a new seamless prediction system for very short range convective-scale forecasting at DWD
Ulrich Blahak

P7: EMS2017-669

Improving automated weather warning proposals in AutoWARN using new products based on high resolution meteorological data
Tamas Hirsch

P8: EMS2017-773

Prediction of Forest Fire Danger Rating using meteorological information observed from the Automatic Mountain Meteorology Observation Stations network
Keunchang Jang

P9: EMS2017-848

Production and Dissemination of Warnings at DWD
Bernd Erbschäuer

P10: EMS2017-849

The Operational Warning Decision Support System
 AutoWARN for Forecasting and Nowcasting Severe
 Weather at DWD
Bernhard Reichert

END OF POSTER PROGRAMME OSA1.2

OSA1.8/ES3.2 Forecast verification (co-organized)

Convener: Pertti Nurmi

Co-Convener: Anna Ghelli, Manfred Dorninger, Marion
 Mittermaier

P11: EMS2017-408

A user-oriented verification methodology for wind
 forecast.
Maria Stefania Tesini

P12: EMS2017-256

Comparing ALADIN CZ and ALADIN LAEF precipitation
 forecasts for hydrological modelling in the Czech
 Republic
Martin Vokoun

P13: EMS2017-222

Interactive web app to explore space-time variability in
 predictive skill of seasonal forecasts
Kathrin Wehrli

END OF POSTER PROGRAMME OSA1.8/ES3.2

OSA2.2 Reducing Weather Risks to Transport: air, sea and land

Convener: Fraser Ralston

Co-Convener: Christine Le Bot

Poster pitches: Tue, 15:55, Blue Room

P14: EMS2017-436

Advanced Visualization System for Road Weather
 Station Data and Forecasts as a Support for CHMI
 Forecasting Service
Jan Sulan

P15: EMS2017-612

Road weather forecasting - ICEWARN model
Pavel Sedlak

END OF POSTER PROGRAMME OSA2.2

OSA2.4 Sub-seasonal-to-seasonal (s2s) predictions and societal applications

Convener: Ángel G. Muñoz

Co-Convener: Laura Ferranti, Silvio Gualdi

Poster pitches: Wed, 18:00, Business school 2

P16: EMS2017-255

Skill of user-tailored seasonal temperature forecasts for
 agriculture in Peru
Katrin Sedlmeier

P17: EMS2017-752

Probabilistic empirical prediction of seasonal climate:
 evaluation and potential applications
Jonathan Eden

END OF POSTER PROGRAMME OSA2.4

OSA2.6 Energy Meteorology

Convener: Sven-Erik Gryning

Co-Convener: Ekaterina Batchvarova, Lucien Wald,
 Marion Schroedter-Homscheidt

Poster pitches: Wed, 17:15–18:00, Business school 2

P18: EMS2017-50

The Solar Energy Nowcasting SystEm (SENSE): Pilot
 applications and validation of results
Panagiotis Kosmopoulos

P19: EMS2017-128

Nowcasting solar radiation using cloud satellite and high
 resolution numerical model outputs
Antonio Rodriguez

P20: EMS2017-652

Solar Energy Nowcast Demonstrator
Carsten Hoyer-Klick

P21: EMS2017-136

Satellite-based surface solar radiation estimation over
 Finland: an analysis of estimation bias by cloud type
Viivi Kallio

P22: EMS2017-263

Solar power plant performance evaluation through an
 Analog Ensemble scheme, based on satellite estimation
 of global irradiance at the surface.
Elena Collino

P23: EMS2017-685

Providing intraday solar irradiance forecasts before the
 sunrise: satellite based night cloud index retrieval and
 forecast
Sylvain Cros

P24: EMS2017-265

Retrieve of aerosol information using spectral data and
 comparison with MACC forecasts.
Dario Ronzio

P25: EMS2017-392

"HC-1+HC-3" a long-term data set of daily solar radiation at surface
Benoit Gschwind

P26: EMS2017-675

An investigation of systematic errors in solar radiation in reanalysis models
Eadaoin Doddy

P27: EMS2017-723

Large scale atmospheric circulation patterns and solar energy resources in the UK and Ireland
Joao Correia

P28: EMS2017-347

Possible impact of the climate change and variations on the weather pattern in relation to wind power resources in East Japan
Masamichi Ohba

P29: EMS2017-242

Assessing the option of wind power based heat supply of buildings for various regions in Europe
Hans Georg Beyer

P30: EMS2017-328

Short-range predictions for wind power in eastern Austria using artificial neural networks
Irene Schicker

P31: EMS2017-670

Wind velocity and turbulence measurements in tall masts in Estonia
Marko Kaasik

P32: EMS2017-86

Optimizing observation impact on data assimilation for the short-term forecast with the use of Forecast Sensitivity to Observations (FSO)
Paraskevi Vourlioti

P33: EMS2017-446

The impact of the 3DVAR assimilation of SEVIRI radiance on the prediction of solar irradiance forecasts in Italy using WRF Solar mesoscale model
Sabrina Gentile

P34: EMS2017-533

Renewable energy variability and availability from high resolution reanalyses
Christopher Frank

P35: EMS2017-254

Impact of climate change on demand and supply balance
Vincent Chabot

P36: EMS2017-678

Variations in wind-solar correlations across multiple datasets
Seanie Griffin

P37: EMS2017-571

ICE CONTROL - The challenge of reasonable icing forecasts for optimizing wind energy production
Manfred Dorninger

P38: EMS2017-739

Optimising the expansion of renewable generation and transmission for the Vietnamese Power System
Alexander Kies

P39: EMS2017-363

Weather For Vage - Improving The Value Of Variable and Uncertain Power Generation In Energy System
Juha Kilpinen

P40: EMS2017-325

Building climatology of South regions of Chile: Comparative with North regions of Spain
Konstantin Verichev

P41: EMS2017-417

Improving grid safety through flexible weather and power prediction models based on stochastic and physical hybrid methods
Malte Siefert

END OF POSTER PROGRAMME OSA2.6

OSA2.8/ES1.7 Atmospheric effects on humans: Air quality, biometeorology, urban climate and UV-radiation (co-organized)

Convener: Andreas Matzarakis, Charles Chemel, Vincent-Henri Peuch

Co-Convener: Alexander Baklanov, Astrid Manders, Tanja Cegnár, Leena Järvi, K. Heinke Schluenzen

Poster pitches: Tue, 10:15–10:45, The Theatre

P42: EMS2017-370

Synoptic control of particulate matter pollution in Barcelona during the 21th century
Jessica Amaro

P43: EMS2017-530

Autoregressive temperature and air quality prediction in Budapest in the winter of 2016-2017
István Lagzi

P44: EMS2017-22

Cardiovascular admissions related to particulate matter from 2.5µm to 80µm in Heraklion, Crete Island, Greece
Anastasia Blea

P45: EMS2017-124

Regional climate modification by LULC change in Tokyo metropolitan area
Masayuki Hara

P46: EMS2017-576

Extreme daily records of urban heat island effect over Barcelona city (NE Spain) and their linkages with synoptic conditions
Maria-Dolores Martinez

P47: EMS2017-635

Creating of local climate zones and verification of urban heat island in Bratislava during four days in June 2016
Juraj Holec

P48: EMS2017-800

Analysing the relationship between the surface urban heat island intensity and the local climatic zones in Budapest
Csenge Dian

P49: EMS2017-608

The role of blue areas in mitigating the Urban Heat Island - a satellite-derived assessment
Sorin Cheval

P50: EMS2017-344

A Study on Impact Forecasting of Building-scale Resolved Heat Exposure for Local Weather Information Services
Chaeyeon Yi

P51: EMS2017-308

Mitigating the influence from AC heat release on urban microclimate using Photonic Cooling technologies
Rosmarie de Wit

P52: EMS2017-109

Intra-urban outdoor human thermal sensation based on long-term database
János Unger

P53: EMS2017-645

Evaluation of thermal comfort conditions in Moscow region for 1981-2014 period with high spatial and temporal resolution.
Pavel Konstantinov

P54: EMS2017-733

Modeling of summer thermal comfort conditions of Arctic city on microscale
Oлга Gommershtadt

P55: EMS2017-742

The impact of façade orientation and vegetation on summer heat stress - measurements and simulations from a rectangular Central-European square
Noémi Kántor

P56: EMS2017-286

Early heat warnings for European workers
Christoph Spirig

P57: EMS2017-39

Fostering Urban Climate Adaptation via a smartphone app: the Urban ClimAdApp for Amsterdam (Netherlands)
Gert-Jan Steeneveld

P58: EMS2017-305

Towards a Healthy Urban Route Planner for cyclists and pedestrians in Amsterdam
Gert-Jan Steeneveld

P59: EMS2017-54

Controlling sunbathing safety during the summer holidays - the solar UV campaign at Baltic Sea coast in 2015
Jakub Guzikowski

P60: EMS2017-470

Determination of ultraviolet exposure and vitamin D status in a group of female adolescents in Greece
Andreas Kazantzidis

END OF POSTER PROGRAMME OSA2.8/ES1.7

OSA3.1 Climate monitoring: data rescue, management, quality and homogenization

Convener: Manola Brunet-India

Co-Convener: Ingeborg Auer, Dan Hollis, Victor Venema

Poster pitches: Wed, 17:45, Gallery

P61: EMS2017-64

Cross validation of relative homogenisation algorithms using a monthly precipitation station network in Ireland
John Coll

P62: EMS2017-744

Early global warming in the period 1850 to 1930
Victor Venema

P63: EMS2017-285

Quality Control and Homogenization of Monthly Temperatures in Belgium
Charles Delvaux

P64: EMS2017-309

The EUSTACE daily LSAT dataset: A collection of 36000+ unique in-situ daily temperature series with inhomogeneities identified
Yuri Brugnara

P65: EMS2017-359

Recent developments in the European Climate Assessment & Dataset
Gerard van der Schrier

P66: EMS2017-426

Daily quality control of climatic variables involved in SPEI drought index calculation
Miquel Tomas-Burguera

P67: EMS2017-492

Temperature evolution in the Alpine region
Barbara Chimani

P68: EMS2017-828

An overview to data rescue activities
Ingeborg Auer

P69: EMS2017-795

Data Rescue in Met Éireann
Daly Conor

P70: EMS2017-611

Data rescue and quality control of the long-term summer and winter, maximum and minimum, daily air temperature records in Ireland

Carla Mateus

P71: EMS2017-573

Assessing anemometer drift as an additional cause of the stilling phenomenon: A statistical approach to minimize biases in wind speed series

Cesar Azorin-Molina

P72: EMS2017-591

Comparison of wind speed trends from homogenized and inhomogeneous time series

Pavel Zahradnicek

P73: EMS2017-650

Re-calibration of Infrared and Water-Vapor channels of imagers on EUMETSAT and JMA historical geostationary meteorological satellites using HIRS data

Tasuku Tabata

P74: EMS2017-663

A SCOPE-CM Project for the retrieval of Land Surface Albedo using imagery acquired by geostationary satellites.

Alessio Lattanzio

P75: EMS2017-227

A Global radiation dataset for the Piemonte area (Italy) over the 1990-2016 period

Veronica Manara

P76: EMS2017-230

A new dataset of visibility observations for the 1951-2014 period over Italy

Veronica Manara

P77: EMS2017-578

Management and development of a suite of national climate monitoring products for the UK

Mark McCarthy

P78: EMS2017-646

Advancing the climate data management at the Botswana Department of Meteorological Services within SASSCAL

Jens Olaf Riede

P79: EMS2017-717

Climate data management in the meteorological service of Zambia: Experience from SASSCAL

Rafael Posada

P80: EMS2017-753

Interactive access to climate observations from Germany

Frank Kaspar

END OF POSTER PROGRAMME OSA3.1**ES2.1 Communication and Media**

Convener: Tanja Cegnar

Poster pitches: Wed, 15:50, The Theatre

P130: EMS2017-209

The "Meteo-show" in the newspapers

Iñaki Orbe

P131: EMS2017-206

Twitter and Weather Services.

Santiago Gaztelumendi

P132: EMS2017-460

The Editorial Team: improving communication between meteorologists and the public

Anders D. Sivle

P133: EMS2017-498

Automated reproducible analysis for climatological reports using R

Sandra Spillane

END OF POSTER PROGRAMME ES2.1**ES3.1 Education and training: At schools, for the public, for stakeholders and professionals**

Convener: Tomas Halenka

Co-Convener: Heikki Tuomenvirta

P134: EMS2017-90

Blended learning to support training in climatology in the Andean region

Stefanie Gubler

P135: EMS2017-93

Learning and teaching about seasonal climate forecasts: a Mediterranean educational experience toward operational climate services

Vieri Tarchiani

P136: EMS2017-231

Cloud observations: citizen science, school education, and weather communication.

Anders D. Sivle

END OF POSTER PROGRAMME ES3.1



EMS ANNUAL MEETING 2018

European Conference for
Applied Meteorology and Climatology



3-7 September 2018

Budapest, Hungary

SAVE THE DATE

9-13 Sep 2019: Copenhagen

Thursday, 09:00–09:30

Keynote Lecture on Understanding Weather & Climate Processes (UP)

Effects of Arctic warming on mid-latitude weather and climate

Timo Vihma

Research Professor at FMI,

Head of Polar Meteorology and Climatology Group

Thursday, 09:45–10:45

Upload of presentations for sessions starting at 9:45 is possible from 8:40 to 09:00 and from 09:15.

UP1.1 Atmospheric dynamics and predictability

Lecture room: Blue Room

Convener: Alessandro Dell'Aquila

Co-Conveners: Christian Franzke; Fulvio Stel

09:45–10:00: EMS2017-585

Optimal excitation of asymmetric disturbances on a cylindrical vortex sheet

Toshihisa Itano

10:00–10:15: EMS2017-734

Chaotic behaviour via Lyapunov exponent of a three-layer quasigeostrophic model

Jan Skořepa

10:15–10:30: EMS2017-588

Impact of different IFS microphysics on a warm conveyor belt and the downstream flow evolution

Hanna Joos

10:30–10:45: EMS2017-2

Role of Large-Scale Tropospheric Circulation and Energetics in the Latitudinal Distribution of the Tropical Cyclone Lifecycle.

Joshua Studholme

ORAL PROGRAMME OF UP1.1 CONTINUES ON THURSDAY, 11:15

OSA1.6 Probabilistic and ensemble forecasting at short and medium-ranges

Lecture room: Gallery

Convener: Andrea Montani

Co-Conveners: Jan Barkmeijer; Fernando Prates

09:45–10:15: EMS2017-313

Predicting uncertainty in the global ICON Ensemble (solicited)

Michael Denhard

10:15–10:30: EMS2017-432

An Operational Global System for forecasting Point rainfall and Flash flood risk

Tim Hewson

10:30–10:45: EMS2017-144

Application of Blended Forecasts to High Spatial- and Temporal- Resolution Time-lagged Ensemble Forecasts

Yunsung Hwang

ORAL PROGRAMME OF OSA1.6 CONTINUES ON THURSDAY, 11:15

OSA2.6 Energy Meteorology

Lecture room: Business school 1

Convener: Sven-Erik Gryning

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

09:45–10:00: EMS2017-676

The Wind Forecast Improvement Project 2 (WFIP2)

Melinda Marquis

10:00–10:15: EMS2017-361

Evaluation of probabilistic forecasting of atmospheric and ocean conditions on the Southern North Sea using the ECWMF Ensemble Prediction System

Reinder Ronda

10:15–10:30: EMS2017-423

Representation of the atmospheric boundary layer in the WRF mesoscale meteorological model over the North Sea

Peter C. Kalverla

10:30–10:45: EMS2017-177

Short-term forecasting of wake induced wind fluctuations in offshore wind farms

Arslan Salim Dar

ORAL PROGRAMME OF OSA2.6 CONTINUES ON THURSDAY, 11:15

OSA2.7/UP3.7 High-resolution precipitation monitoring for hydrological and climate-related applications (co-organized)

Lecture room: Business school 2

Convener: Tanja Winterrath; Massimiliano Zappa

Co-Conveners: Andreas Becker; Katharina Lengfeld; Marie-Claire ten Veldhuis; Markus Ziese; Elsa Cattani; Louise Crochemore; Auguste Gires; Aart Overeem

09:45–10:00: EMS2017-360

Optimal scan strategy for fine resolved X-Band radar measurements

Yaoyao Zheng

10:00–10:15: EMS2017-840

Radar based precipitation estimation in real time for flood and drainage management in urban areas

Stefan Kraemer

10:15–10:30: EMS2017-836

Tuning radar algorithms with disdrometer data in the Paris area

Auguste Gires

10:30–10:45: EMS2017-703

Performance of High-Resolution Quantitative Precipitation Estimation from A Compact Dual-Pol X-Band Radar in Belgium with Evaluation of Different Gauge-Adjustment Techniques

Xiaohan Li

ORAL PROGRAMME OF OSA2.7/UP3.7 CONTINUES ON THURSDAY, 11:15

ES1.3 Creating national and regional climate services in Europe through partnerships

Lecture room: The Theatre

Convener: Carlo Buontempo; Clare Goodess

Co-Conveners: Tanja Cegnar; Francisco J. Doblas-Reyes; Chris Hewitt

09:45–10:00: EMS2017-625

Introducing Climateurope: Europe's network for climate services

Natalie Garrett

10:00–10:15: EMS2017-267

A synoptic overview of the use of climate information in Europe

Marta Bruno Soares

10:15–10:30: EMS2017-544

Engaging with users in climate service development in CLIPS

Tiina Ervasti

10:30–10:45: EMS2017-225

Out with it! The need to talk plain text to non-climate experts

Heike Huebener

ORAL PROGRAMME OF ES1.3 CONTINUES ON THURSDAY, 11:15

Thursday, 11:15–13:00

UP1.1 Atmospheric dynamics and predictability

Lecture room: Blue Room

Convener: Alessandro Dell'Aquila

Co-Conveners: Christian Franzke; Fulvio Stel

11:15–11:30: EMS2017-68

Structure and Evolution Characteristics of Atmospheric Intraseasonal Oscillation and its Impact on the Summer Rainfall over the Yangtze River Basin in 1998

Yanjun Qi

11:30–11:45: EMS2017-171

Dynamics and predictability of Medicanes in the ECMWF ensemble forecast system

Enrico Di Muzio

11:45–12:00: EMS2017-456

Climatology, dynamics and regional impacts of Euro-Atlantic blockings and sub-tropical ridges

Pedro M Sousa

12:00–12:15: Poster pitches

END OF ORAL PROGRAMME UP1.1

ORAL PROGRAMME OF OSA1.1 CONTINUES IN THIS ROOM

OSA1.1 Numerical aspects and physical parametrization integration in NWP model

Lecture room: Blue Room

Convener: Daniel Reinert

Co-Conveners: Guy de Morsier

12:15–12:30: Introduction to Posters

12:30–12:45: EMS2017-602

Laplace Transform Time Integration Schemes in OpenIFS

Eoghan Harney

12:45–13:00: EMS2017-677

Using the best available physiography to improve weather forecasts

Gudrun Nina Petersen

END OF ORAL PROGRAMME OSA1.1

OSA1.6 Probabilistic and ensemble forecasting at short and medium-ranges

Lecture room: Gallery

Convener: Andrea Montani

Co-Conveners: Jan Barkmeijer; Fernando Prates

11:15–11:30: Poster introduction

11:30–12:00: EMS2017-277

Generating probabilistic forecasts from convection-permitting ensembles (solicited)

Nigel M. Roberts

12:00–12:15: EMS2017-207

A new stochastic scheme perturbing partial model tendencies

Clemens Wastl

12:15–12:30: EMS2017-817

Probabilistic fog forecasting with COSMO model

Andrea Montani

12:30–12:45: EMS2017-673

Probabilistic forecasts of ice formation on wind turbines with a limited-area ensemble prediction system

Lukas Strauss

12:45–13:00: EMS2017-783

Ensemble based high-impact weather warning and its verification in Korea

Kyoungjun Lee

END OF ORAL PROGRAMME OSA1.6

OSA2.6 Energy Meteorology

Lecture room: Business school 1

Convener: Sven-Erik Gryning

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

11:15–11:30: EMS2017-654

Characteristics of Wind Turbine Wake Effect in a Southern China Lake-side Wind Farm via WRF-Fitch Modeling

Shu Wang

11:30–11:45: EMS2017-680

Meteorological icing condition detection with ceilometer

Minttu Tuononen

11:45–12:00: EMS2017-741

Use of Doppler Lidars for Model Evaluation and Studying Flow in Complex Terrain
Aditya Choukulkar

12:00–12:15: EMS2017-23

The value of Doppler LiDAR systems to monitor turbulence intensity during storm events in Iceland
Shu Yang

12:15–12:30: EMS2017-777

Ramp events in the marine boundary-layer investigated by a wind lidar.
Sven-Erik Gryning

12:30–12:45: EMS2017-769

Full-scale wake measurements with three long-range lidar at the Perdigo 2017 experiment
Norman Wildmann

12:45–13:00: EMS2017-763

Doppler lidar horizontal wind retrievals from a meteorological perspective
Ewan O'Connor

END OF ORAL PROGRAMME OSA2.6

OSA2.7/UP3.7 High-resolution precipitation monitoring for hydrological and climate-related applications (co-organized)

Lecture room: Business school 2

Convener: Tanja Winterrath; Massimiliano Zappa
Co-Conveners: Andreas Becker; Katharina Lengfeld; Marie-Claire ten Veldhuis; Markus Ziese; Elsa Cattani; Louise Crochemore; Auguste Gires; Aart Overeem

11:15–11:30: EMS2017-166

A 16-year radar-based high-resolution precipitation climatology for Germany - methodology, products, and applications
Tanja Winterrath

11:30–11:45: EMS2017-566

High resolution spatial analysis of short-term rainfall time structure variability
Marek Kašpar

11:45–12:00: EMS2017-232

New web-based tool for extracting precipitation design values at any point in Norway
Anita Verpe Dyrrdal

12:00–12:15: EMS2017-551

Rainfall erosivity in Piedmont Region (North-West Italy) and vineyards implications
Alice Baronetti

12:15–12:20: Introduction to poster session**12:20–12:40: Poster pitches****12:40–13:00: Discussion and Wrap-up**

ORAL PROGRAMME OF OSA2.7/UP3.7 CONTINUES ON THURSDAY, 13:00

ES1.3 Creating national and regional climate services in Europe through partnerships

Lecture room: The Theatre

Convener: Carlo Buontempo; Clare Goodess
Co-Conveners: Tanja Cegnár; Francisco J. Doblas-Reyes; Chris Hewitt

11:15–11:30: EMS2017-30

User co-design of state-of-the-art climate model simulations: towards a better-informed society
Erika Palin

11:30–11:45: EMS2017-511

Developing a new wave of climate services at the United Kingdom Met Office
Jason Lowe

11:45–12:00: EMS2017-593

Networking and Communicating - Building Blocks of the Swiss National Centre for Climate Services (NCCS), a National Coordination Mechanism and Partnership
Angela Michiko Hama

12:00–12:15: EMS2017-84

The new CH2018 climate scenarios in Switzerland
Andreas Fischer

12:15–12:30: EMS2017-507

Climate Ireland: Supporting Decision-making for Climate Adaptation
Barry O'Dwyer

12:30–12:45: EMS2017-268

CLimate services supporting Public activities and Safety (CLIPS)
Hilppa Gregow

12:45–13:00: EMS2017-398

Towards a next generation of climate services scientists: The EUPORIAS Masterclass experience
Alessandro Dell'Aquila

END OF ORAL PROGRAMME ES1.3

14:00: Poster pitches for session OSA1.5 are scheduled within session OSA1.10 in the Blue Room

Thursday, 14:00–16:00

UP1.2 Atmospheric Boundary-layer Processes and Turbulence

Lecture room: Blue Room

Convener: Gert-Jan Steeneveld; Sergej Zilitinkevich

Co-Conveners: Bert Holtslag

14:00–14:15: Poster pitches

14:15–14:45: EMS2017-875

Online-integrated multi-scale atmospheric modeling (solicited)

Roman Nuterman

14:45–15:00: EMS2017-633

Surface-layer turbulence and Monin-Obukhov similarity theory revisited

Sergej Zilitinkevich

15:00–15:15: EMS2017-24 (EMS YSTA)

Mesoscale-turbulence interactions in the ABL dynamics: a 10-year study in Cabauw (Netherlands)

Jon Ander Arrillaga

15:15–15:30: EMS2017-194

Effects of time-dependent inflow perturbations on urban flow

Keith Ngan

15:30–15:45: EMS2017-151

Local Characteristics of the Nocturnal Boundary Layer in Response to External Pressure Forcing

Steven van der Linden

15:45–16:00: EMS2017-260

Near-surface temperature inversion growth rate during the onset of the stable boundary layer

Ivo van Hooijdonk

ORAL PROGRAMME OF UP1.2 CONTINUES ON THURSDAY, 16:30

OSA1.3/ES1.1 Impact forecasting and impact modelling of weather and natural hazard events (co-organized)

Lecture room: Business school 1

Convener: Rebecca Hemingway; Dee Cotgrove; Haleh Kootval; Adriaan Perrels

Co-Conveners: Seungbum Kim; Tobias Pardowitz; Graeme Boyce; Will Lang; Tanja Cegnár

14:00–14:15: EMS2017-46

Why do Impact Forecasting and Impact Modelling?

Rebecca Hemingway

14:15–14:30: EMS2017-56

Development of an operational, risk-based approach to surface water flood forecasting

Robert Cowling

14:30–14:45: EMS2017-765

Current status and future plan of Risk-based Warning System in Korea

Seungbum Kim

14:45–15:00: EMS2017-792

The studies on the customized impact forecasts in Korea

Min-Jeong Youn

Delivery and communication of impact based forecasts and risk based warnings

15:00–15:15: EMS2017-656

Moving to Impact-Based Forecasting - challenges in Met Eireann

Gerry Murphy

15:15–15:30: EMS2017-479

Communicating Severe Weather during The 2016-17 Winter In Spain

Ana Casals-Carro

15:30–15:45: EMS2017-526

Innovations in communicating high impact weather events

Sarah Fysh

15:45–16:00: Poster introductions

ORAL PROGRAMME OF OSA1.3/ES1.1 CONTINUES ON THURSDAY, 16:30

OSA1.11 Cloud computing and data distribution

Lecture room: Gallery

Convener: Andrew Eccleston

Co-Conveners: Willie McCairns

14:00–14:15: EMS2017-332

JASMIN and the role of Cloud Computing in realising a Big Data facility for the Environmental Sciences
Philip Kershaw

14:15–14:30: EMS2017-639

Views on the potential of Cloud computing and IaaS/HPaaS for meteorology and climatology
Juan Antonio Añel

14:30–14:45: EMS2017-766

The Road to Democratizing Data - Opening of Data, Source Code and Infrastructure at FMI
Mikko Rauhala

14:45–15:00: EMS2017-770

A Community-Consensus Approach to Knowledge Interoperability within Heterogeneous Earth System Science based Observational Systems
Paul Stacey

15:00–15:15: EMS2017-798

Big data dissemination & impact on the met value chain
Alex Longden

15:15–15:30: EMS2017-45

Cloud Services as IT-Enablers for NMHSs
Sheldon Drobot

15:30–15:45: EMS2017-138

There's Weather in the Cloud(s)
Neil McGillis

15:45–16:00: EMS2017-335

Use cases of cloud computing and requirements towards data distribution within a private meteorological service provider
Dennis Schulze

END OF ORAL PROGRAMME OSA1.11

OSA2.7/UP3.7 High-resolution precipitation monitoring for hydrological and climate-related applications (co-organized)

Lecture room: Business school 2

Convener: Tanja Winterrath; Massimiliano Zappa

Co-Conveners: Andreas Becker; Katharina Lengfeld; Marie-Claire ten Veldhuis; Markus Ziese; Elsa Cattani; Louise Crochemore; Auguste Gires; Aart Overeem

14:00–14:15: EMS2017-834

Rainfall maps from commercial microwave links (CMLs) and urban flood prediction : Pilot tests of an early warning system in several African cities
Marielle Gosset

14:15–14:30: EMS2017-809

At which spatial and temporal scales can precipitation be measured? On the effective resolution of observation systems
Clément Guilloteau

14:30–14:45: EMS2017-184

An Index of the Statistical Heterogeneity of Rain Observations
Arthur Jameson

14:45–15:00: EMS2017-715

Classification and plausibility assessment of historical and future weather and climate anomalies (application for the Wupper River Basin, Germany)
Marc Scheibel

**END OF ORAL PROGRAMME OSA2.7/UP3.7
ORAL PROGRAMME OF OSA1.4 CONTINUES IN
THIS ROOM**

OSA1.4 Meteorological observations from GNSS and Copernicus satellites

Lecture room: Business school 2

Convener: Jonathan Jones

Co-Conveners: Guergana Guerova

15:00–15:15: Poster pitches

15:15–15:30: EMS2017-51

COST Action ES1206: Advanced GNSS Tropospheric Products for Monitoring Severe Weather Events and Climate (GNSS4SWEC)

Jonathan Jones

15:30–15:45: EMS2017-369

Comparing precipitable water from remote sensing and space geodetic techniques with numerical weather models

Daniel Landskron

15:45–16:00: EMS2017-496

The homogenization of GPS Integrated Water Vapour time series: methodology and benchmarking the algorithms on synthetic datasets

Roeland Van Malderen

ORAL PROGRAMME OF OSA1.4 CONTINUES ON THURSDAY, 16:30

ES1.4 Evaluation and quality assurance of climate services - Methods, criteria and pitfalls

Lecture room: The Theatre

Convener: Insa Meinke

Co-Conveners: Irene Fischer-Bruns; Klaus Grosfeld

14:00–14:15: Poster pitches for sessions ES1.4 and ES1.3

14:15–14:30: EMS2017-224

Assessing the value of seasonal climate forecasts in decision-making

Marta Bruno Soares

14:30–14:45: EMS2017-493

Quantifying how user-interaction can modify the perception of the value of climate information: a Bayesian approach

Edward Pope

14:45–15:00: EMS2017-338

The (Mis)understanding of Quality in Climate Services Delivery

Adriaan Perrels

15:00–15:15: EMS2017-823

Climate fit - real labor 'climate change and its impacts' in adult education

Renate Treffeisen

15:15–15:30: EMS2017-340

Estimating the added value of a climate service - from WSCA to CSCA

Adriaan Perrels

15:30–15:45: EMS2017-832

Towards a framework to the evaluation of climate service and knowledge transfer processes within climate and coastal research

Susanne Schuck-Zöller

15:45–16:00: EMS2017-833

Potential evaluation criteria and indicators for knowledge transfer activities in coastal sciences - case studies from the North Sea region.

Christiane Eschenbach

END OF ORAL PROGRAMME ES1.4

Thursday, 16:30–17:30

UP1.2 Atmospheric Boundary-layer Processes and Turbulence

Lecture room: Blue Room

Convener: Gert-Jan Steeneveld; Sergej Zilitinkevich

Co-Conveners: Bert Holtslag

16:30–16:45: EMS2017-316

Quantification of fog liquid water budget from ground-based remote sensing and LES-modelling

Eivind Wærsted

16:45–17:00: EMS2017-385

Analysing the interactions of coupled soil-atmosphere simulations on turbulent scales

Katrin Scharf

17:00–17:15: EMS2017-405

LES is more

Antoon van Hooft

17:15–17:30: EMS2017-569

Implications of atmospheric boundary layer dynamics for urban air quality: case studies from London and Beijing

Simone Kotthaus

END OF ORAL PROGRAMME UP1.2

UP3.1 Climate change detection, assessment of trends, variability and extremes

Lecture room: The Theatre

Convener: Albert M.G. Klein Tank

Co-Conveners: Monika Lakatos; Martine Rebetez

Detecting and assessing changes in temperature and temperature extremes

16:30–16:45: EMS2017-95

Long-term trends in temperature variables and their relation to sunshine duration in Switzerland

Simon C. Scherrer

16:45–17:00: EMS2017-751

Frost free season in Central Europe and its relationship with atmospheric circulation

Agnieszka Wypych

17:00–17:15: EMS2017-198

Changes in diurnal temperature range and in spring frost risk to trees in Switzerland during the last 4 decades

Martine Rebetez

17:15–17:30: Poster pitches

ORAL PROGRAMME OF UP3.1 CONTINUES ON FRIDAY, 09:00

UP3.5 Phenology: observations, monitoring and modelling across a range of scales

Lecture room: Gallery

Convener: Alison Donnelly

Co-Conveners: Emily Gleeson

16:30–16:45: EMS2017-78

Comparing net ecosystem exchange, satellite derived phenological measures and in-situ leaf observations in early spring in a temperate mixed forest

Alison Donnelly

16:45–17:00: EMS2017-387

VITCLIC project

Maja Telisman Prtenjak

17:00–17:15: EMS2017-672

Detecting changes in the timing of autumn phenology in response to climate change

Astrid Wingler

17:15–17:30: EMS2017-711

Assessing fire danger under climate change conditions for the Euro-Mediterranean fire prone ecosystems

Anna Karali

Poster pitches

END OF ORAL PROGRAMME UP3.5

OSA1.3/ES1.1 Impact forecasting and impact modelling of weather and natural hazard events (co-organized)

Lecture room: Business school 1

Convener: Rebecca Hemingway; Dee Cotgrove; Haleh Kootval; Adriaan Perrels

Co-Conveners: Seungbum Kim; Tobias Pardowitz; Graeme Boyce; Will Lang; Tanja Cegnár

Impact forecasting and impact modelling of weather and natural hazard events

16:30–16:45: EMS2017-36

Games, social media, citizen science... In the face of environmental hazards, how effective are different forms of two-way communication in informing and involving the public?

Maria Lorono-Leturiondo

16:45–17:00: EMS2017-126

Trusted Spotter Network Austria - Towards a New Standard in the Field of Crowd-Sourced Weather- and Impact- Observations?

Thomas Krennert

17:00–17:15: EMS2017-440

The study of the vulnerability to high-impact weather using web-crawling and big-data analysis in Korea

Jaein Jung

17:15–17:30: EMS2017-381

Response Mechanisms for Severe Space Weather events in the UK

Mark Gibbs

ORAL PROGRAMME OF OSA1.3/ES1.1 CONTINUES ON FRIDAY, 09:00

OSA1.4 Meteorological observations from GNSS and Copernicus satellites

Lecture room: Business school 2

Convener: Jonathan Jones

Co-Conveners: Guergana Guerova

16:30–16:45: EMS2017-582

From noise to information: Comparing GNSS Slant Delay with NWP

Siebre de Haan

16:45–17:00: EMS2017-736

Evaluation of the atmospheric water vapor content in the regional climate model ALARO-0 using GNSS observations from EPN Repro2

Julie Berckmans

17:00–17:15: EMS2017-740

A comparison of integrated water vapour products over the Iberian Peninsula

Joao Paulo Martins

END OF ORAL PROGRAMME OSA1.4

Posters Thursday, 17:30–18:30

UP1.1 Atmospheric dynamics and predictability

Convener: Alessandro Dell'Aquila
Co-Convener: Christian Franzke
Poster pitches: Thu, 12:00, Blue Room

P74: EMS2017-57

The atmospheric conditions associated with Hurricane Lenny of 1999 and its vulnerability and impacts on Antigua
Arry Simon

P75: EMS2017-110

Influence of an upper potential vorticity anomaly on a cyclogenetic event over Black Sea
Meda Daniela Andrei

P76: EMS2017-134

Analysis of a winter storm using PV-inversion techniques
Michael Langguth

P77: EMS2017-192

Variability of Extreme temperature over East Asia and its relationships with teleconnection patterns
Woo-Seop Lee

P78: EMS2017-429

Impacts of El Niño and El Niño Modoki on the streamflow in Ecuador
César Quishpe-Vásquez

P79: EMS2017-735

The Myth of Lorenz Butterflies - Or the Misunderstanding of Atmospheric Chaos
Isimar Santos

END OF POSTER PROGRAMME UP1.1

UP1.2 Atmospheric Boundary-layer Processes and Turbulence

Convener: Gert-Jan Steeneveld, Sergej Zilitinkevich
Co-Convener: Bert Holtslag
Poster pitches: Thu, 14:00, Blue Room

P80: EMS2017-18

Parameterization of physical process in blowing snow
Viktoriia Bychkova

P81: EMS2017-178

The importance of meteorology and thermodynamic conditions in the development of thermal convection used in cross - country and duration flights with sailplanes
Lucretia Alexandra Picui

P82: EMS2017-306

Interannual and seasonal variation of momentum exchange at a midlatitude mixed deciduous forest
Branislava Lalic

P83: EMS2017-329

A climatology of gravity wave drag for Lindenberg (Germany)
Astrid Eichhorn

P84: EMS2017-632

The Urban Wind Island Effect
Arjan Droste

P85: EMS2017-180

Radiation fog modelling: Unravelling physics sensitivity in a process diagram approach.
Gert-Jan Steeneveld

P86: EMS2017-201

Analysing interscale energy transfer in urban boundary layer turbulence using orthonormal wavelets
Ghar Ek Lau

P87: EMS2017-349

Effective roughness length considering sub-grid heterogeneity and form drag
Myung-Seo Koo

P88: EMS2017-700

Investigation of low-level jet events in the Laptev Sea area by ground-based remote sensing
Clemens Drüe

END OF POSTER PROGRAMME UP1.2

UP3.1 Climate change detection, assessment of trends, variability and extremes

Convener: Albert M.G. Klein Tank
Co-Convener: Monika Lakatos, Martine Rebetez
Poster pitches: Thu, 17:15, The Theatre

P108: EMS2017-20

Historical changes in dry conditions in Indonesia
Vasily Kokorev

P109: EMS2017-26

Process-oriented dynamical downscaling verification
Jose Antonio Salinas

P110: EMS2017-31

Trends and variability of convective and stratiform precipitation in the Czech Republic over 1982-2015
Zuzana Rulfova

P111: EMS2017-55

Validation of EURO-CORDEX and Med-CORDEX regional climate model ensembles over the Carpathian Region with special focus on extremes using the high resolution gridded observational database: CARPATCLIM
Csaba Zsolt Torma

P112: EMS2017-75

Impacts of Climate Change on Meteorological Wildfire Danger in the Czech Republic
Lenka Hajkova

P113: EMS2017-102

The climatic differences of extreme high temperature in China
Ting Ding

P114: EMS2017-114

Extreme monthly precipitation pattern in China and its dependence on Southern Oscillation
Shiquan Wan

P115: EMS2017-233

Liquid water path over Arctic and Antarctica between 1982 and 2015 during the summer season.
Mauro Boccolari

P116: EMS2017-321

Secular cold winter extremes in Europe - A study by means of daily climate indices, based on a high-quality station-based dataset
Andreas Hoy

P117: EMS2017-374

Climatology of water vapor pressure conditions and muggy days incidence in Slovakia
Katarína Mikulová

P118: EMS2017-375

Extreme daily rainfall event in Slovakia during the summer of 2016
Jozef Pecho

P119: EMS2017-410

Statistical downscaling of daily temperatures in Portugal for 1950-2015: variability and trends
André Fonseca

POSTER PROGRAMME OF UP3.1 CONTINUES ON FRIDAY, 10:30–11:30

OSA1.1 Numerical aspects and physical parametrization integration in NWP model

Convener: Daniel Reinert

Co-Convener: Guy de Morsier

Poster pitches: Thu, 12:15, Blue Room

P1: EMS2017-615

ESCAPE: Scaling Weather and Climate for Exascale
Alastair McKinstry

P2: EMS2017-388

Operational NWP at Met Éireann
Colm Clancy

P3: EMS2017-806

How does MeteoSwiss serve society with better weather forecasting information?
Guy de Morsier

P4: EMS2017-239

Towards a consistent treatment of cloudy air in ICON
Daniel Reinert

P5: EMS2017-350

Applications of KIAPS nonhydrostatic dynamical core on cubed sphere for refinement
Suk-Jin Choi

P6: EMS2017-351

Impact of improved ozone climatology on temperature bias at tropical tropopause layer
Raeseol Park

END OF POSTER PROGRAMME OSA1.1

OSA1.3/ES1.1 Impact forecasting and impact modelling of weather and natural hazard events (co-organized)

Convener: Rebecca Hemingway, Dee Cotgrove, Haleh Kootval, Adriaan Perrels

Co-Convener: Seungbum Kim, Tobias Pardowitz, Graeme Boyce, Will Lang, Tanja Cegnar

Poster pitches: Thu, 17:15, Business school 1

P7: EMS2017-130

Crowd Sourcing of Weather Observations at European National Meteorological Services
Thomas Krennert

P8: EMS2017-204

Statistical Modelling of Weather-Related Car Accidents in Germany
Nico Becker

P9: EMS2017-211

Floods in Vitoria-Gasteiz : economic impact and meteorological causes.
Santiago Gaztelumendi

P10: EMS2017-236

Severe weather warnings and professional users' needs
Anders D. Sivle

P11: EMS2017-434

The development of social-economic impact database caused by high-impact weather in Korea
Chang-Min Park

END OF POSTER PROGRAMME OSA1.3/ES1.1

OSA1.4 Meteorological observations from GNSS and Copernicus satellites

Convener: Jonathan Jones

Co-Convener: Guergana Guerova

Poster pitches: Thu, 15:00, Business school 2

P12: EMS2017-28

Monitoring of water cycle elements using GNSS geodetic receivers in North-East Germany at sub-daily resolution

Tzvetan Simeonov

P13: EMS2017-19

Anomalies of hydrological cycle components during the 2007 heat wave in Bulgaria.

Bilyana Mircheva

P14: EMS2017-59

BeRTISS project - Balkan-Mediterranean real time severe weather service

Haris Haralambous

P15: EMS2017-402

Quality assessment of near real-time GPS-based troposphere data in Poland since 2012

Jan Kaplon

END OF POSTER PROGRAMME OSA1.4

OSA1.6 Probabilistic and ensemble forecasting at short and medium-ranges

Convener: Andrea Montani

Co-Convener: Jan Barkmeijer, Fernando Prates

Poster pitches: Thu, 11:15, Gallery

P20: EMS2017-38

Analysis of an extreme rainfall case in Ireland using a HARMONIE-AROME physics ensemble

Emily Gleeson

P21: EMS2017-244

Spread-skill relationship of COSMO-CZ-EPS

Petr Zacharov

P22: EMS2017-371

Sensitivity of forecast skill to the parameterization of convection in limited-area ensemble mode

Matteo Vasconi

P23: EMS2017-486

A comparison of ensemble reduction methods

Stefano Serafin

P24: EMS2017-648

Member-by-member postprocessing of hydrological ensemble predictions, based on reforecasts

Joris Van den Bergh

END OF POSTER PROGRAMME OSA1.6

OSA1.11 Cloud computing and data distribution

Convener: Andrew Eccleston

Co-Convener: Willie McCairns

P35: EMS2017-216

Weather Apps, Crowdsourcing and other tendencies.

Santiago Gaztelumendi

P36: EMS2017-484

Low-cost and scalable computing framework for meteorological data

Laila Daniel

END OF POSTER PROGRAMME OSA1.11

OSA2.7/UP3.7 High-resolution precipitation monitoring for hydrological and climate-related applications (co-organized)

Convener: Tanja Winterrath, Massimiliano Zappa
Co-Convener: Andreas Becker, Katharina Lengfeld, Marie-Claire ten Veldhuis, Markus Ziese, Elsa Cattani, Louise Crochemore, Auguste Gires, Aart Overeem
Poster pitches: Thu, 12:20–12:40, Business school 2

P50: EMS2017-704

Comparison of a radar tracking and station based nowcasting of rainfall
Bora Shehu

P51: EMS2017-212

Radar-based diurnal cycle of summer precipitation in the Czech Republic
Vojtěch Blížňák

P52: EMS2017-235

A study of the dependence of the ratio between rainfall amounts measured using fixed and unrestricted intervals on the characteristic rainfall pattern of a place
Alba Llabrés-Brustenga

P53: EMS2017-829

HOMPRA Europe - A monthly gridded precipitation data set from European homogenized time series
Elke Rustemeier

P54: EMS2017-604

Africa's rainfall: Systematic literature comparison of rainfall products
Camille Le Coz

P55: EMS2017-512

Low-cost sensors for high resolution water vapor monitoring in Rotterdam
Andreas Kriemeyer

P56: EMS2017-148

Microphysical characteristics considered hydrometeor types observed in Two-Dimension Video Disdrometer data during winter seasons
Hyeonjoon Kim

END OF POSTER PROGRAMME OSA2.7/UP3.7

ES1.3 Creating national and regional climate services in Europe through partnerships

Convener: Carlo Buontempo, Clare Goodess
Co-Convener: Tanja Cegnar, Francisco J. Doblas-Reyes, Chris Hewitt
Poster pitches: Thu, 14:00, The Theatre

P136: EMS2017-247

Making use of big climate data in risk management and climate change adaptation
Rasmus Benestad

P137: EMS2017-380

Application of CORDEX modelling results to the development of climate change adaptation plans for small and medium size cities in Poland
Maciej Krystian Jefimow

P138: EMS2017-414

The foundations for climate services in Belgium: CORDEX.be
Bert Van Schaeybroeck

P139: EMS2017-520

Operational summer outlooks developed from 6-week forecasts in CLIPS
Terhi Laurila

END OF POSTER PROGRAMME ES1.3

ES1.4 Evaluation and quality assurance of climate services - Methods, criteria and pitfalls

Convener: Insa Meinke
Co-Convener: Irene Fischer-Bruns, Klaus Grosfeld
Poster pitches: Thu, 14:00, The Theatre

P140: EMS2017-653

Evaluation Quality Control with MAVIS - A meteorological analyzing and visualization software toolbox
Jennifer Lenhardt

P141: EMS2017-831

On the evaluation of regional climate services by its users - A case study in Northern Germany
Claus Winter

END OF POSTER PROGRAMME ES1.4

EMS ANNUAL MEETING 2018

European Conference for
Applied Meteorology and Climatology

3-7 September 2018

Budapest, Hungary



SAVE THE DATE
9-13 Sep 2019: Copenhagen

Friday, 09:00–10:30

UP1.3 Understanding and modelling of atmospheric hazards and severe weather phenomena

Lecture room: Business school 1

Convener: Fulvio Stel

Co-Conveners: Victoria Sinclair; Mario Marcello Miglietta; Dario Giaiotti; Jordi Mazon; Sante Laviola

09:30–09:45: Short poster presentation

Heavy precipitations from synoptics to numerics

09:45–10:00: EMS2017-221

Synoptic aspects of large floods in the south of Catalonia (Spain)

Juan Carlos Peña

10:00–10:15: EMS2017-383

Heavy precipitation events over Liguria (Italy): high-resolution hydro-meteorological forecasting and rainfall data assimilation

Silvio Davolio

10:15–10:30: EMS2017-161

Reliability in modeling extreme precipitation rain rates supports in progress strategies for the improvement of operational severe weather forecasts and simulations of climate change scenarios

Dario Giaiotti

ORAL PROGRAMME OF UP1.3 CONTINUES ON FRIDAY, 11:30

UP3.1 Climate change detection, assessment of trends, variability and extremes

Lecture room: The Theatre

Convener: Albert M.G. Klein Tank

Co-Conveners: Monika Lakatos; Martine Rebetez

09:00–09:15: EMS2017-613

Collective significance of climatic trends over Europe

Radan Huth

09:15–09:30: EMS2017-743

Temperature extremes assessment using the Land Surface Analysis Climate Data Record of Land Surface Temperature

Joao Paulo Martins

09:30–09:45: EMS2017-273

Temperature trends in different European mountain regions and their changes with elevation

Lucie Pokorná

09:45–10:00: EMS2017-307

Attribution to climate change of trends on European heatwaves conditioned to circulation

Aglaé Jézéquel

10:00–10:15: EMS2017-176

Meteorodiversity: A new concept for quantifying meteorological diversity

Jordi Mazon

10:15–10:30: EMS2017-248

New assessment on the physics of climate change in the Arctic

Rasmus Benestad

ORAL PROGRAMME OF UP3.1 CONTINUES ON FRIDAY, 11:30

OSA1.3/ES1.1 Impact forecasting and impact modelling of weather and natural hazard events (co-organized)

Lecture room: Business school 1

Convener: Rebecca Hemingway; Dee Cotgrove; Haleh Kootval; Adriaan Perrels

Co-Conveners: Seungbum Kim; Tobias Pardowitz; Graeme Boyce; Will Lang; Tanja Cegnar

High-impact weather forecasting: Socio-economic benefits and user perspectives

09:00–09:15: EMS2017-154

Blackpool Community Flood Warning System

Tadhg O'Leary

09:15–09:30: EMS2017-695

The impact of implementing CAP (Common Alerting Protocol) for issuing weather warnings

Solfrid Agersten

END OF ORAL PROGRAMME OSA1.3/ES1.1

ORAL PROGRAMME OF UP1.3 CONTINUES IN THIS ROOM

OSA1.10 The Weather Research and Forecasting Model (WRF): Development, Research and Applications

Lecture room: Blue Room

Convener: Gert-Jan Steeneveld

Co-Conveners: Hugo Hartmann

09:00–09:15: EMS2017-400

WRF simulations of a flash flood event in central Italy: a comparison between variational data assimilation methods

Vincenzo Mazzeola

09:15–09:30: EMS2017-234

A comparison of daily evaporation downscaled using WRFDA model and GLEAM dataset over the Iberian Peninsula.

Santos J. González-Rojí

09:30–09:45: EMS2017-631

Frequency and evolution of Low Level Jet events over the southern North Sea analysed from WRF simulations and LiDAR measurements

David Wagner

09:45–10:00: EMS2017-258

Variable resolution modelling in the grey-zone with the Model for Prediction Across Scales (MPAS)

Matthijs Kramer

10:00–10:15: EMS2017-266

Using data assimilation in WRF to model the urban climate of Amsterdam

Sytse Koopmans

10:15–10:30: Poster pitches for sessions OSA1.10 and OSA1.5

ORAL PROGRAMME OF OSA1.10 CONTINUES ON FRIDAY, 11:30

OSA2.5 Agricultural Meteorology

Lecture room: Gallery

Convener: Keith Lambkin

Co-Conveners: Emily Gleeson; Josef Eitzinger

09:00–09:15: EMS2017-92

Agrometeorological Services for smallholder farmers in West Africa

Vieri Tarchiani

09:15–09:30: EMS2017-882

Revealing turning points in ecosystem functioning over the Northern Eurasian agricultural frontier (EMS Tromp Award Lecture)

Stéphanie Horion

09:30–09:45: EMS2017-500

Wildfire in Ireland - A meteorological perspective.

Ciaran Nugent

09:45–10:00: EMS2017-628

Weather amplifications of agricultural diffuse pollution: developing climate-chemical indicators

Per-Erik Mellander

10:00–10:15: EMS2017-419

Airborne Animal Disease Atmospheric Dispersion System

Keith Lambkin

ORAL PROGRAMME OF OSA2.5 CONTINUES ON FRIDAY, 11:30

OSA3.4/ES1.6 Deriving actionable information from climate prediction on decadal to scenario time scales (co-organized)

Lecture room: Business school 2

Convener: Mark Liniger

Co-Conveners: Clare Goodess; Martin Widmann; Jean-Pierre Céron; Andreas Fischer

09:00–09:15: EMS2017-279

User needs and user-oriented products for decadal predictions

Andreas Paxian

09:15–09:30: EMS2017-845

A synthesis of the VALUE perfect predictor experiment

Douglas Maraun

09:30–09:45: EMS2017-246

Strategy for generation of climate change projections feeding Spanish impact community

María P. Amblar-Francés

09:45–10:00: EMS2017-304

Safeguarding Cultural Heritage against Climate Change using Regional Climate Projections and Statistical Downscaling

Rosmarie de Wit

10:00–10:15: EMS2017-750

Modelling the impact of land use and climate changes at the regional scale

Julie Berckmans

10:15–10:30: Poster pitches for sessions OSA3.4 and OSA3.2

END OF ORAL PROGRAMME OSA3.4/ES1.6

Friday, 11:30–13:00

UP1.3 Understanding and modelling of atmospheric hazards and severe weather phenomena

Lecture room: Business school 1

Convener: Fulvio Stel

Co-Conveners: Victoria Sinclair; Mario Marcello Miglietta; Dario Giaiotti; Jordi Mazon; Sante Laviola

11:30–11:45: EMS2017-9

Analysis of orographic influence on hail parameters in NW Croatia

Damir Počakal

11:45–12:00: EMS2017-32

The impact of urbanization on an extreme precipitation event over Jakarta

Aristofanis Tsiringakis

Gravity waves and lightning

12:00–12:15: EMS2017-710

Detection of gravity waves across the Snaefellsnes Peninsula: A case study

Ioana Colfescu

12:15–12:30: EMS2017-214

Assessing the relationship between lightning density and cloud top height parameters, based on NWC SAF estimations and lightning observations

Athanassios Karagiannidis

Large convective systems

12:30–12:45: EMS2017-756

The "Multi-hazard" effect of Tropical cyclones

Liudmila Vanina-Dart

12:45–13:00: EMS2017-217

Birth of the Biscane

Michael Maier-Gerber

ORAL PROGRAMME OF UP1.3 CONTINUES ON FRIDAY, 14:00

UP3.1 Climate change detection, assessment of trends, variability and extremes

Lecture room: The Theatre

Convener: Albert M.G. Klein Tank

Co-Conveners: Monika Lakatos; Martine Rebetez

Detecting and assessing changes in precipitation and weather extremes

11:30–11:45: EMS2017-579

Assessing variations and trends in drought conditions over Central Europe

Stephanie Hänsel

11:45–12:00: EMS2017-253

Weather extremes associated with atmospheric blockings from reanalyses and model simulations

Aleksandr Timazhev

12:00–12:15: EMS2017-327

Meteorological droughts in central Europe and their drivers

Jiří Mikšovský

12:15–12:30: EMS2017-334

Droughts in Canada: An Overview

Barrie Bonsal

12:30–12:45: EMS2017-364

Extreme future central European summer droughts in a high-resolution global climate model

Eveline van der Linden

12:45–13:00: EMS2017-721

Extreme precipitation in the Netherlands: an event attribution case study

Jonathan Eden

ORAL PROGRAMME OF UP3.1 CONTINUES ON FRIDAY, 14:00

OSA1.10 The Weather Research and Forecasting Model (WRF): Development, Research and Applications

Lecture room: Blue Room

Convener: Gert-Jan Steeneveld

Co-Conveners: Hugo Hartmann

11:30–11:45: EMS2017-762

Added Value of 1km WRF-ARW Predictions over the North-Western Iberian Peninsula
Guillermo Fernández

11:45–12:00: EMS2017-243

Evaluation of multi-physics urban-scale forecasts in the city of Madrid
Markel García-Díez

12:00–12:15: EMS2017-844

Urban heat island in WRF weather prediction
Tomas Halenka

END OF ORAL PROGRAMME OSA1.10

ORAL PROGRAMME OF OSA1.5 CONTINUES IN THIS ROOM

OSA1.5 Data assimilation and use of observations in meteorology and oceanography

Lecture room: Blue Room

Convener: Alexander Cress

Co-Conveners: Sarah Dance

10:15: Poster pitches for session OSA1.5 are scheduled within session OSA1.10 in the Blue Room

12:30–12:45: EMS2017-80

Ensemble Data Assimilation Implemented to the Unstructured Centroidal Voronoi Hexagonal Mesh Model with a C-grid Staggering and a Selective Grid Refinement
Ji-Sun Kang

12:45–13:00: EMS2017-346

Ensemble Singular Vectors as additive inflation in the Local Ensemble Transform Kalman Filter framework with a global NWP model
Seoleun Shin

ORAL PROGRAMME OF OSA1.5 CONTINUES ON FRIDAY, 14:00

OSA2.5 Agricultural Meteorology

Lecture room: Gallery

Convener: Keith Lambkin

Co-Conveners: Emily Gleeson; Josef Eitzinger

Soil & Crops

11:30–11:45: EMS2017-490

Machine learning classification of soil drainage status using multispectral
Rob O'Hara

11:45–12:00: EMS2017-287

Modelling Soil Carbon and Extreme Weather for Irish Agricultural Soils
Padraig Flattery

12:00–12:15: EMS2017-125

Assessing weather related risks for crop production in Austria
Josef Eitzinger

12:15–12:30: EMS2017-379

Assessment of winter wheat yield potential at spatially contrasting sites in Ireland using daily temperature, radiation and rainfall data.
Joseph Lynch

12:30–12:45: EMS2017-67

Growing Degree Days and precipitation as assessment factors for future responses in agriculture over selected Greek areas with different climate conditions
Spyridon Paparrizos

12:45–13:00: EMS2017-667

The impact of Climate on potato crop in Ireland: A case study
Basanta Kumar Samala

ORAL PROGRAMME OF OSA2.5 CONTINUES ON FRIDAY, 14:00

OSA3.2 Spatial Climatology

Lecture room: Business school 2

Convener: Ole Einar Tveito

Co-Conveners: Mojca Dolinar; Christoph Frei

10:15: Poster pitches for sessions OSA3.2 are scheduled within Session OSA3.4 in room Business school 2

11:30–12:00: EMS2017-880

Developing a new gridded daily climatology for Finland (Young Scientist Award Lecture 2017)

Juha Aalto

12:00–12:15: EMS2017-425

An Ensemble Version of the Daily E-OBS Dataset

Richard Cornes

12:15–12:30: EMS2017-624

The EUSTACE project: delivering global, daily information on surface air temperature

Nick Rayner

12:30–12:45: EMS2017-598

An analysis system for production of globally complete daily air temperature analyses for the EUSTACE project

Colin Morice

12:45–13:00: EMS2017-444

Analyzing trends and variability of cloud and radiation parameters based on CM SAF's satellite climate data records

Uwe Pfeifroth

ORAL PROGRAMME OF OSA3.2 CONTINUES ON FRIDAY, 14:00

Friday, 14:00–16:00

UP1.3 Understanding and modelling of atmospheric hazards and severe weather phenomena

Lecture room: Business school 1

Convener: Fulvio Stel

Co-Conveners: Victoria Sinclair; Mario Marcello Miglietta; Dario Giaiotti; Jordi Mazon; Sante Laviola

14:00–14:15: EMS2017-626

Impact of aerosol-atmosphere interactions on Medicanes

Juan Pedro Montavez

14:15–14:30: EMS2017-143

Development and maintenance of MCS associated with SST variations over the Yellow Sea, Korea

Dong-In Lee

Winter atmospheric hazards

14:30–14:45: EMS2017-127

Revisiting the synoptic-scale predictability of severe European winter storms using ECMWF ensemble reforecasts

Florian Pantillon

14:45–15:00: EMS2017-659

Development of a reliable modeling system for the calculation of rime ice loads on overhead transmission lines

Øyvind Byrkjedal

15:00–15:15: EMS2017-439

Understanding the Cause of False Alarms in Observational Fog Prediction

Jonathan Izett

15:15–15:30: EMS2017-708

Study of the fronts associated to the extratropical cyclone evolution in case of a severe weather event in Romania

Elena Mirela Polifronie

END OF ORAL PROGRAMME UP1.3

UP3.1 Climate change detection, assessment of trends, variability and extremes

Lecture room: The Theatre

Convener: Albert M.G. Klein Tank

Co-Conveners: Monika Lakatos; Martine Rebetez

14:00–14:15: EMS2017-483

Signature of weather types on climate change projections of precipitation in Western Europe

João Andrade Santos

14:15–14:30: EMS2017-337

Changes in precipitation variability in Croatia for 1951-1980 and 1981-2010 periods

Mladen Maradin

14:30–14:45: EMS2017-543

An evaluation of dry spells in central Italy (Tuscany)

Giorgio Bartolini

14:45–15:00: EMS2017-389

The regional analysis of dry spells in Croatia from the period 1961-2015

Ksenija Cindric Kalin

15:00–15:15: EMS2017-160

Advancing Climate Change Detection and Attribution

Andreas Hense

15:15–15:30: EMS2017-693

Detection of spatio-temporal changes in extreme precipitation on the Island of Ireland

Shaun Harrigan

15:30–15:45: EMS2017-665

Ensemble of Regional Climate Model Projections for Ireland

Paul Nolan

15:45–16:00: EMS2017-558

An analysis of sub-daily rainfall to characterise long term trends in UK rainfall

Mark McCarthy

END OF ORAL PROGRAMME UP3.1

OSA1.5 Data assimilation and use of observations in meteorology and oceanography

Lecture room: Blue Room

Convener: Alexander Cress
Co-Conveners: Sarah Dance

14:00–14:30: EMS2017-215

Diagnosing observation error statistics for numerical weather prediction
Joanne Waller

14:30–14:45: EMS2017-318

High Quality Consumer Weather Observations with Machine Learning
Tom de Ruijter

14:45–15:00: EMS2017-515

Assimilation of high-resolution radiosonde reports in the ALADIN-HIRLAM NWP System
Eoin Whelan

15:00–15:15: EMS2017-574

Impact of COSMIC GPSRO assimilation on Indian summer monsoon simulation using variable resolution LMDZ5-DART data assimilation system
Tarkeshwar Singh

15:15–15:30: EMS2017-714

GNSS tropospheric tomography in Near-Real Time mode as a valuable data source for Numerical Weather Prediction models
Witold Rohm

15:30–15:45: EMS2017-563

Assimilation of GNSS slant delay information for numerical nowcasting
Siebre de Haan

15:45–16:00: EMS2017-281

Assimilation of land surface temperature in the coupled land atmosphere system
Christine Sgoff

END OF ORAL PROGRAMME OSA1.5

OSA2.5 Agricultural Meteorology

Lecture room: Gallery

Convener: Keith Lambkin
Co-Conveners: Emily Gleeson; Josef Eitzinger

Grass & Milk

14:00–14:15: EMS2017-300

Verification and bias correction of ECMWF weather forecasts for inclusion in an Irish grass growth model
Jack McDonnell

14:15–14:30: EMS2017-314

Watching grass grow: A spatial and geoclimatic analysis of grass growth in Ireland using remote sensed data
Edward Knapp

14:30–14:45: EMS2017-237

Impact of climate change on grass growth at two sites in Ireland
Elodie Ruelle

14:45–15:00: EMS2017-796

Utilisation of meteorological forecasts for the prediction of milk yield and renewable energy generation in dairy production
Fan Zhang

15:00–15:15: EMS2017-719

The effect of future climate scenario on carbon footprint of milk production in Ireland
Pooja Sharma

Environmental Relationships

15:15–15:30: EMS2017-850

Relationship between monthly precipitation and 850 hPa air temperature in a typical East Mediterranean mountain area
Fadi Karam

15:30–15:45: EMS2017-692

Spatial and temporal characterisation of the hydrological regime of an unregulated European floodplain meadows with implications for plant communities
Caitriona Maher

15:45–16:00: Discussion and Summary

END OF ORAL PROGRAMME OSA2.5

OSA3.2 Spatial Climatology

Lecture room: Business school 2

Convener: Ole Einar Tveito

Co-Conveners: Mojca Dolinar; Christoph Frei

14:00–14:15: EMS2017-575

Use of an Ensemble Kalman Filter technique for two-meter temperature analysis
Luca Cantarello

14:15–14:30: EMS2017-65

High resolution daily gridded minimum, mean and maximum temperature datasets for Germany and river catchments
Stefan Krähenmann

14:30–14:45: EMS2017-601

Development of a WMO compliant climate monitoring products for Croatia
Melita Perčec Tadić

14:45–15:00: EMS2017-592

An assessment of the quality of near real time gridded monthly and daily rainfall products over Ireland
Seamus Walsh

15:00–15:15: EMS2017-87

High resolution climate data supporting success of bioeconomy
Ari Venäläinen

15:15–15:30: EMS2017-274

1845-2016 gridded database of monthly precipitation series for Adda basin (Italy): long-term variability and trend in rainfall-runoff comparison
Alice Crespi

15:30–15:45: EMS2017-671

Comparing climate indices between a northern (arid) and a southern (humid) basin in Mexico during the last decades.
Martin Jose Montero-Martinez

15:45–16:00: EMS2017-521

Long term monthly gridded snow data for Norway
Ole Einar Tveito

END OF ORAL PROGRAMME OSA3.2

Posters Friday, 10:30–11:30

UP1.3 Understanding and modelling of atmospheric hazards and severe weather phenomena

Convener: Fulvio Stel

Co-Convener: Victoria Sinclair, Mario Marcello Miglietta, Dario Giajotti, Jordi Mazon, Sante Laviola

Poster pitches: Fri, 09:30, Business school 1

Extreme temperatures

P89: EMS2017-203

Evaluation of meteorological factors associated with recent severe heat waves and cold spells in EURO-CORDEX RCMs over Central Europe

Ondřej Lhotka

P90: EMS2017-759

Spatial extent and intensity of temperature extremes - multicomponent analysis in different scales (the example for Europe)

Agnieszka Sulikowska

P91: EMS2017-471

Consecutive cold waves over Greece during winter time 2017

Kyriakoula Papachristopoulou

P92: EMS2017-713

Weather patterns of joint modes of extreme climate indices over Greece.

Iliana D. Polychroni

P93: EMS2017-407

Threshold correction of regional climate model ensembles for climate extreme assessments on the country level

Peter Hoffmann

Heavy rainfall

P94: EMS2017-356

Nowcasting of heavy rainfall using the stability indices obtained from the ground-based microwave radiometer network in Seoul metropolitan area

Yunyoung Song

P95: EMS2017-310

Flash floods in Portugal in the period 1950 - 2003 and their interconnection to large scale atmospheric drivers

Mónica Santos

P96: EMS2017-584

The spatial and seasonal variability of extreme precipitation events in Central Europe

Blanka Gvoždíková

P97: EMS2017-345

Observational study and High Resolution Numerical Experiment for Localized Heavy Precipitation Events in Seoul metropolitan area

Joon-Woo Roh

Tropical and extratropical cyclones

P98: EMS2017-647

A meteorological analysis and model inter-comparison of Storm Doris over Ireland

Aurélie Tillet

P99: EMS2017-523

On the kinetic energies of tropical cyclones of different origins

Márk Iván

P100: EMS2017-13 (EMS YSTA)

An explicit method of mesoscale convective storm prediction for Central region of Russia

Inna Gubenko

P101: EMS2017-617

Ensemble Forecasting on a Tropical – like Cyclone over Southwestern Greece

Markos Mylonas Dirdiris

Synoptic patterns and atmospheric hazards

P102: EMS2017-776

On the Relationship Between Atmospheric Rivers, Weather Types and Floods in Galicia (NW Spain)

Jorge Eiras-Barca

P103: EMS2017-727

Atmospheric circulation conditions during events of high precipitable water content in troposphere (PW) over south-west Poland.

Hanna Ojrzyńska

Moisture and aerosols and lightning

P104: EMS2017-226

Spatial and temporal Lightning distribution in Basque Country.

Santiago Gaztelumendi

P105: EMS2017-757

An unusual fog episode at Lisbon airport (Portugal): Performance of ECMWF and AROME models

Margarida Belo-Pereira

P106: EMS2017-755

Application of GNSS tomography in 3D representation of atmospheric moisture during large scale intense precipitation events with Poland as an example

Marek Błaś

P107: EMS2017-295

Scavenging of radioactive gases due to adsorption by atmospheric nanoaerosols

Tov Elperin

END OF POSTER PROGRAMME UP1.3

UP3.1 Climate change detection, assessment of trends, variability and extremes

Convener: Albert M.G. Klein Tank

Co-Convener: Monika Lakatos, Martine Rebetez

Poster pitches: Thu, 17:15, The Theatre

P120: EMS2017-427

Assessment of Future Drought Conditions over the Iberian Peninsula using the WRF model

Matilde García-Valdecasas Ojeda

P121: EMS2017-468

Evaluation of surface temperature regional climate projections over the Iberian Peninsula

Juan Luis Garrido Irigoyen

P122: EMS2017-545

Climatic changes in Romania since the first half of the 20th century

Marius-Victor Birsan

P123: EMS2017-554

Long-term evaluation of hydro-meteorological characteristics of European winters

Stephanie Hänsel

P124: EMS2017-712

Regional climate change scenarios over Europe using an on-line coupled regional atmosphere-chemistry model.

Juan Pedro Montavez

P125: EMS2017-687

Climate projections for Poland using two downscaling strategies

Abdelkader Mezghani

P126: EMS2017-117

Quantitative estimation of the climatic effects of carbon transferred by international trade

Ting Wei

P127: EMS2017-455

Projecting South Asian Summer Precipitation in CMIP3 Models: a Comparison in Simulations with Black Carbon and Those without Black Carbon

Shuanglin Li

P128: EMS2017-441

Extreme precipitation totals under present and future climatic conditions according to regional climate models

Lukáš Dolák

P129: EMS2017-561

Statistical-dynamical downscaling of climate projections for climate change adaptations of transport infrastructure

Michael Haller

P130: EMS2017-547

A world-wide analysis of the time variability of Integrated Water Vapour, based on ground-based GNSS and GOMESCIA satellite retrievals, and with reanalyses as auxiliary tools

Roeland Van Malderen

P131: EMS2017-437

Integrated water vapor trends and variability in GPS, ERA-Interim and climate model simulations

Ana Parracho

END OF POSTER PROGRAMME UP3.1

UP3.5 Phenology: observations, monitoring and modelling across a range of scales

Convener: Alison Donnelly

Co-Convener: Emily Gleeson

Poster pitches: Thu, 17:30, Gallery

Phenology posters

P132: EMS2017-257

The dependences of temperature and soil moisture on the soil CO₂ efflux rates in a cool-temperate forest ecosystem in Seoul, Korea

Seung Jin Joo

P133: EMS2017-416

Predicting grapevine winery production in the Douro based on favourable weather conditions

Helder Fraga

P134: EMS2017-422

Climate change impacts on the thermal growing conditions of cherry trees in Portugal

João Andrade Santos

P135: EMS2017-342

Phenological modelling of trees in Alpine regions of north-western Italy

Simone Falzoi

END OF POSTER PROGRAMME UP3.5

OSA1.5 Data assimilation and use of observations in meteorology and oceanography

Convener: Alexander Cress

Co-Convener: Sarah Dance

Poster pitches: Fri, 10:15 (part of OSA1.10), Blue Room

P16: EMS2017-122

Data Assimilation Effects of WISE Urban Observations and Radiosonde Balloon Drift Information over the Seoul Metropolitan Area

Seung On Hwang

P17: EMS2017-638

Performance of a quality control system in complex terrain with open access data

Birgit Eibl

P18: EMS2017-73

Observation impact in data assimilation for flood inundation forecasting.

Elizabeth Cooper

P19: EMS2017-534

Assimilation of objects based on 3D radar reflectivities on the convective scale with an ensemble-based data assimilation system

Christian Welzbacher

END OF POSTER PROGRAMME OSA1.5

OSA1.10 The Weather Research and Forecasting Model (WRF): Development, Research and Applications

Convener: Gert-Jan Steeneveld

Co-Convener: Hugo Hartmann

Poster pitches: Fri, 10:15, Blue Room

P25: EMS2017-8

Prediction of wind circulation patterns in the central part of the Pyrenees by means of artificial neuronal network.

Nerea Pérez

P26: EMS2017-21

Dynamical downscaling study for urban environment using non-hydrostatic WRF model to estimate the potential local impacts of climate change

Júlia Góndöcs

P27: EMS2017-366

Study specifics of the meso-scale circulation under different large-scale conditions for Sofia region

Evgenia Egova

P28: EMS2017-391

Satellite data assimilation impact on short-term forecasts for the Sofia region

Evgeni Vladimirov

P29: EMS2017-622

Tuning and validation of WRF ARW in BULATSA, first phase of its implementation as a driver for new aeronautical meteorological forecasting products

Rosen Penchev

P30: EMS2017-666

Application of WRF simulations to improve our understanding of stable isotope composition of precipitation

Hajnalka Breuer

P31: EMS2017-698

Effect of satellite soil moisture initialization on WRF simulated summer precipitation in Central Europe

Hajnalka Breuer

P32: EMS2017-707

Annual comparison of global irradiance simulations of WRF-ARW model using different land-use data over Southeast of Paraguay

Ever Barreto

P33: EMS2017-778

Performance of four PBL schemes in WRF at Villum Research Station, Station Nord, Greenland

Hristina Kirova

P34: EMS2017-674

Sensitivity of WRF model estimates to choice of Land use Land cover and Reanalysis dataset over India

Preeti Gunwani

END OF POSTER PROGRAMME OSA1.10

OSA2.5 Agricultural Meteorology

Convener: Keith Lambkin

Co-Convener: Emily Gleeson, Josef Eitzinger

Poster pitches: Fri, 10:15, Gallery

P42: EMS2017-552

Consumptive use of green and blue water for wheat and tomato cultivated in Southern Italy as affected by climate change

Domenico Ventrella

P43: EMS2017-485

Probabilistic forecast of major arable crops in Serbia and Austria

Ana Firanj Sremac

P44: EMS2017-488

Modelling irrigated maize yield response to climate change scenarios in Portugal

Chenyao Yang

P45: EMS2017-296

An Analysis of Possibilities of Forecasting the AVISO Agrometeorological Model Input

Petr Münster

P46: EMS2017-634

Establishing a Platform for Integrated Pest Management in Irish Crops

Michael Gaffney

P47: EMS2017-428

The use of agrometeorological data for crop disease risk forecasting in Ireland: a case of potato late blight
Mladen Cucak

P48: EMS2017-450

Assessment of Enhanced Vegetation Index (EVI) derived agro-climatic zonation map of Ireland based on various partitioning cluster algorithms
Mohana Priya Logakrishnan

P49: EMS2017-497

Prediction of Drought Based on Medium-term Forecast Data
Filip Chuchma

END OF POSTER PROGRAMME OSA2.5**OSA3.2 Spatial Climatology**

Convener: Ole Einar Tveito

Co-Convener: Mojca Dolinar, Christoph Frei

Poster pitches: Fri, 10:15 (part of OSA3.4), Business School 2

P57: EMS2017-814

Spatial climatology of surface solar radiation in Slovenia based on satellite and in-situ measurements
Katja Kozjek

P58: EMS2017-518

Spatial prediction of sunshine duration climatology over Germany merging satellite and in situ data
Jakub P. Walawender

P59: EMS2017-445

Comparison of surface solar irradiance measurements over Ireland: Satellite data, in-situ observations and high resolution regional re-analysis model data.
Willemien van Hoeve Phelan

P60: EMS2017-620

On the accuracy of gridded daily rainfall amounts for the UK at a range of spatial resolutions
Timothy Legg

P61: EMS2017-541

Comparison of E-OBS and CARPATCLIM gridded datasets by Analysis of Variance (ANOVA) method
Monika Lakatos

P62: EMS2017-229

Bayesian hierarchical modeling of extreme sub-daily precipitation in Norway
Anita Verpe Dyrrdal

P63: EMS2017-553

Integrating ground observation data and meteorological reanalysis for wind mapping
Alexandru Dumitrescu

P64: EMS2017-415

Uncertainty propagation in the generation of reference crop evapotranspiration database in Spain
Miquel Tomas-Burguera

P65: EMS2017-453

Towards a new quality-controlled daily climate dataset for the Pyrenees, 1950-2015
Roberto Serrano-Notivoli

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OSA3.4/ES1.6 Deriving actionable information from climate prediction on decadal to scenario time scales (co-organized)

Convener: Mark Liniger

Co-Convener: Clare Goodess, Martin Widmann, Jean-Pierre Céron, Andreas Fischer

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P66: EMS2017-218

Ensemble generation method based on Bred Vectors (BV) for inter-annual to decadal climate prediction.
Vanya Romanova

P67: EMS2017-238

Climate change impact on future heating and cooling needs in Gospić (Croatia)
Lidija Cvitan

P68: EMS2017-377

Downscaling of heat stress indices in Europe: evaluation and climate change projections
Ana Casanueva

P69: EMS2017-609

The South America CORDEX Flagship Pilot Study: Extreme precipitation events in Southeastern South America: a proposal for a better understanding and modeling
Radan Huth

P70: EMS2017-720

CzechAdapt - System for Exchange of Information on Climate Change Impacts, Vulnerability and Adaptation Measures on the Territory of the Czech Republic
Miroslav Trnka

P71: EMS2017-760

A Gridded Weather Generator SPAGETTA: Towards the finer resolution
Martin Dubrovsky

P72: EMS2017-799

The potential selection of the most appropriate setup of RegCM to contributing to the national climate change scenario of Hungary
Tímea Kalmár

P73: EMS2017-250

High-resolution projections for soil frost conditions in Finland with regard to timber harvesting and transport availability
Ilari Lehtonen

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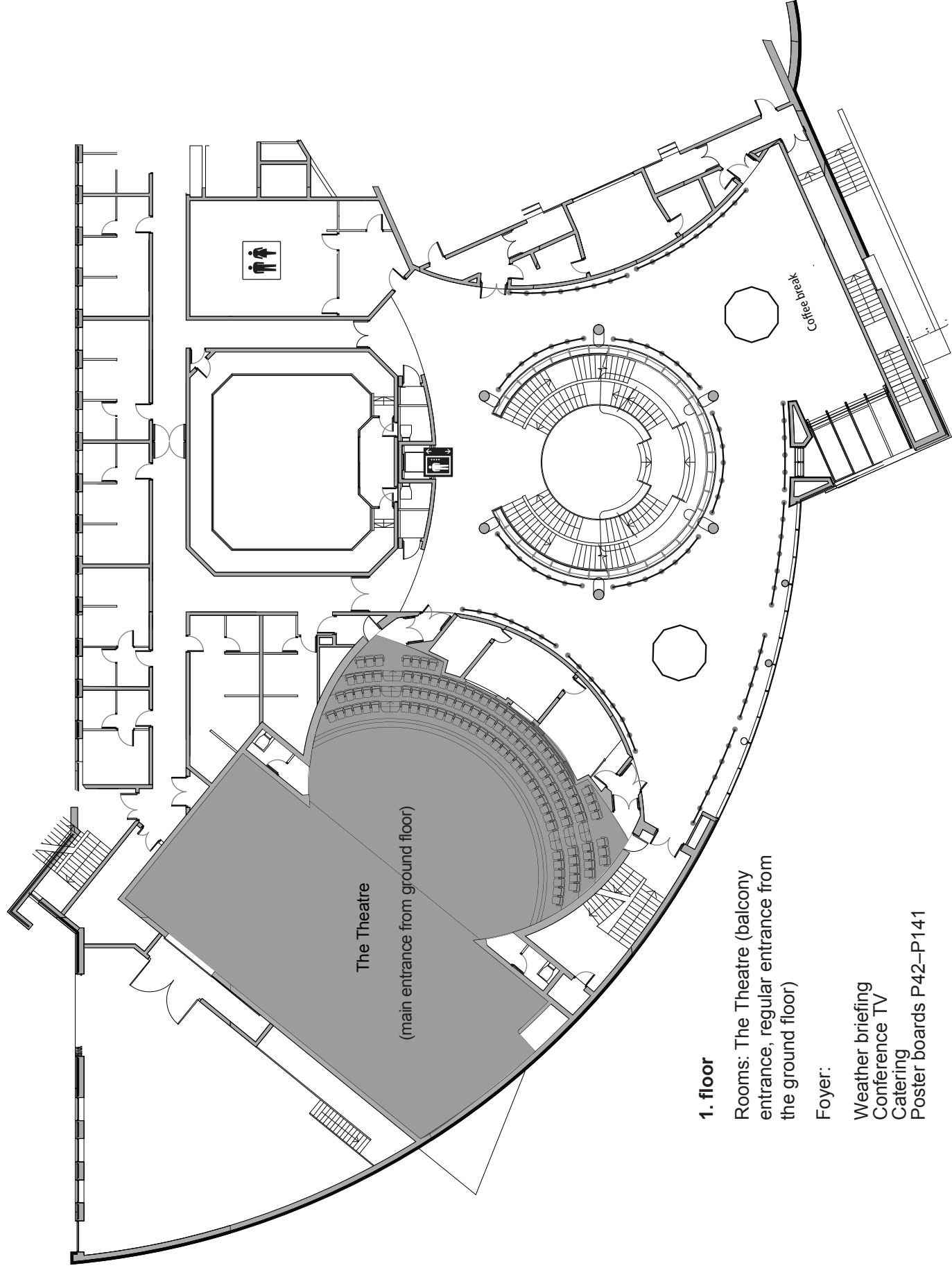
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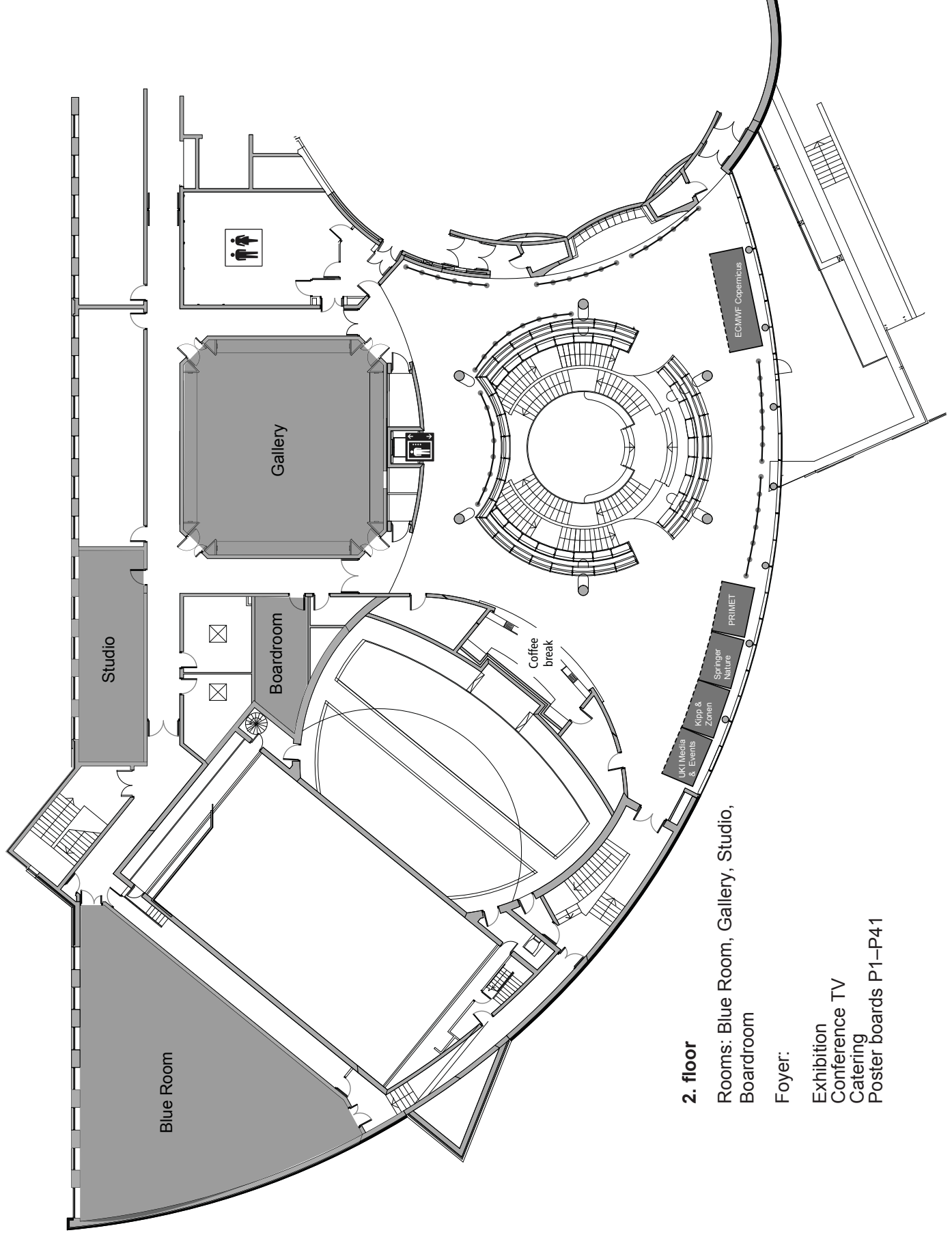


1. floor

Rooms: The Theatre (balcony entrance, regular entrance from the ground floor)

Foyer:

Weather briefing
Conference TV
Catering
Poster boards P42-P141



2. floor

Rooms: Blue Room, Gallery, Studio,
Boardroom

Foyer:

Exhibition
Conference TV
Catering
Poster boards P1-P41

SENSITIVITY OF THE REGIONAL CLIMATE MODEL ALARO-0 TO LAND SURFACE CHANGES: A CONCEPTUAL FRAMEWORK

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Motivation

Current status on coupled models

- No full coupling of the climate, land surface and socio-economic system
- Low resolution models

What we will deliver

- A full coupling of the climate, land surface and socio-economic system
- High resolution models

Approach

- 3 models:** regional climate model, dynamic vegetation model, agent-based land use model
- Country-scale assessment tool for **Belgium**
- Coupling done at **4 km** horizontal resolution, but case studies will be performed at **1 km** horizontal resolution
- Future period of **2015-2035**

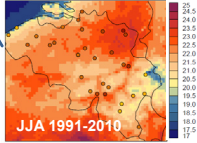
Initial setup of the models

Global reanalysis
ERA-Interim

Dynamical downscaling

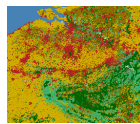
Atmospheric model
ALARO-0

T2M_max (°C)



Land surface model
SURFEX

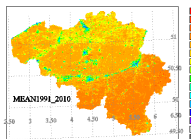
Static land use:
ECOCLIMAP II



- Water surfaces
- Urban area
- Crops
- Pastures
- Mixed cultivation
- Forest
- Grassland
- Other

The regional climate model ALARO-0 [1] is forced with lateral boundary conditions from ERA-Interim and coupled to the land surface model SURFEX [2]. The land covers in SURFEX are described by the ECOCLIMAP-II database [3].

LAI (m² m⁻²) [JJA]



Dynamic vegetation model
CARAIB

CRU Global Climate
Dataset

- Belgium is highly urbanised.
- The T2M_max shows the orographic cooling in the southeastern part. This region is covered by large forests, which is also indicated by the LAI.
- A region in the northeast (de Kempen) has higher maximum temperatures, due to the presence of sandy soils. Also, this region shows lower LAI.

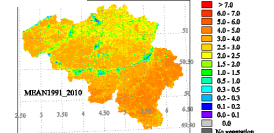
The dynamic vegetation model CARAIB [4] is forced monthly with climate data from the CRU [5] database (at 0.5° resolution) combined with WorldClim [6] data (at 30"~1 km).

Coupling to dynamic vegetation model

Atmospheric model
ALARO-0

Land surface model
SURFEX

LAI (m² m⁻²) [JJA]



Dynamic vegetation model
CARAIB

The atmospheric parameters, wind speed, relative humidity, temperature, precipitation and incoming downward solar radiation, are exchanged at the lowest model level at 4 km horizontal resolution. The vegetation parameters, leaf area index, albedo, emissivity and roughness length are exchanged at 1 km horizontal resolution.

- Lower LAI when using ALARO-SURFEX vs CRU
- Possible relation with higher temperature in ALARO-SURFEX vs CRU

Coupling to dynamic vegetation model + agent-based model

Atmospheric model
ALARO-0

Land surface model
SURFEX

Agent-based
land use model

Dynamic vegetation model
CARAIB

The dynamic vegetation model is coupled to the agent-based land use model and together, they provide the **land surface dynamics**. The agent-based model consists of land dynamics, agent dynamics and crop dynamics.

Full coupling in a future climate

ARPEGE CM5
RCP2.6, RCP4.5,
RCP8.5

Atmospheric model
ALARO-0

Land surface model
SURFEX

Agent-based
land use model

Dynamic vegetation model
CARAIB

Discussion and future outlook

- Most likely **scenarios** will be chosen for Belgium:
 - Urban land type increases, at the expense of agriculture & forest if:
 - high urban pressure
 - allowed by spatial plans
 - Forest is a relatively stable land type
- Case studies selected in collaboration with follow-up committee members within project
- Assessment** of the impact of the land use changes on the climate at a local scale, by performing 1 km SURFEX simulations in offline mode (no feedback to atmosphere)
- Recommendations** to policy makers in relation to climate change mitigation

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