



THE  
CLIMATE SYMPOSIUM  
2014

Climate Research and Earth  
Observations from Space:    Climate Information  
for Decision Making

Darmstadt, Germany  
13-17 October 2014

2nd Announcement



Early registration by 15 May 2014:  
[www.theclimatesymposium.com](http://www.theclimatesymposium.com)

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### Organising committee

- Roberta Boscolo, WCRP
- Paul Counet, EUMETSAT
- Rowanna Comerford, EUMETSAT
- Vladimir Ryabinin, WCRP
- Roberta Lupis, European Commission

### The venue

The symposium will take place in the futuristic Darmstadt Science and Congress Centre (<http://www.darmstadtium.de>), located in the heart of the city of Darmstadt.



Darmstadt is located just 30 km south of Frankfurt and only 20 minutes drive to the city's major international airport. Darmstadt enjoys a reputation as a 'City of Science' thanks to the many public and private scientific research establishments located there, not to mention the headquarters of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) and the European Space Operations Centre (ESOC) of the European Space Agency (ESA).

Darmstadt is not only a "city of science", but also a city of art and culture. It is a hub of art deco architecture and has been the home to top researchers, musicians, engineers and artists for centuries. Today Darmstadt is the product of a unique fusion between artistic traditions and technological advancement. The pedestrian area in the city centre offers numerous restaurants, shopping and relaxation possibilities. Just a short trip out of town lie the beautiful Odenwald hills, a haven for nature lovers and outdoor enthusiasts and also home to the famous Bergstrasse, one of the best wine regions in Germany.



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



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The main goal of the symposium is to provide a forum for discussing the current state of climate science and climate observations in order to evaluate recent achievements, ascertain critical objectives to be achieved with satellite-based climate information, and identify gaps in the current space-based component of the climate observing system. A major topic that will be discussed is the proposed Architecture for sustained Climate Monitoring from Space that has been developed under the auspices of the Committee on Earth Observation Satellites (CEOS), the Coordination Group of Meteorological Satellites (CGMS) and the World Meteorological Organization (WMO). Beyond the monitoring of the current state of the Climate System, the conference will also consider how Earth observation contributes to future developments in climate prediction and climate change projection.

The symposium and the follow-on activities are expected to benefit climate-related risk management, and help to underpin the development of responsible and affordable climate change mitigation and adaptation options. A key aspect will be the detection and attribution of climate change beyond the basic variables.

The symposium will also benefit climate science by putting in motion a process for creating a joint action plan for the planning and development of an international space-based climate observing system that will be responsive to the current and emerging needs in the areas of climate research, modelling and services (i.e. Global Framework for Climate Services).

### Conference programme

The overarching theme of the symposium is "Enhanced Understanding of Climate Processes through Earth Observation."

The symposium will consist of two segments. The first segment will focus on findings from the Fifth assessment of the Intergovernmental Panel on Climate Change (IPCC), and the necessary dialogue between information providers and users of science-based climate information for decision making. The second segment will be organised around the following key scientific themes:

- Clouds, circulation and climate sensitivity
- The changing water cycle
- Cryosphere in a warming world
- Ocean circulation and regional sea level rise
- Prediction and attribution of extremes: from climate to weather
- Regional climate variability and change: enabling climate services

#### Poster and themed sessions

The scientific and technical oral and poster presentations for each of the themes (mentioned above) will be organised in the form of plenary sessions (two themes per day), including dialogue and discussion with participants, and poster sessions with dedicated viewing time and one-on-one discussions with authors.

#### Social events

- Icebreaker, hosted by the City of Darmstadt, on Monday 13 October
- Gala dinner, hosted by the European Space Agency, on Wednesday 15 October

## Preliminary programme – the week at a glance

	Monday, 13 October 2014	Tuesday, 14 October 2014	Wednesday, 15 October 2014	Thursday, 16 October 2014	Friday, 17 October 2014
<b>Morning</b>	<p>Welcome and opening remarks</p> <p>Keynote talk: <b>Presentation of IPCC WGII (Impacts, adaptation and vulnerability) Report</b></p> <p>Setting the Scene: Copernicus, GEO, GFCS, IPCC</p> <p>Observations from Space: Recent Accomplishments, Future Challenges and Opportunities for Climate Science</p>	<p>Theme 1: <b>Clouds, Circulation and Climate Sensitivity</b> (Bjorn Stevens and Sandrine Bony)</p> <ul style="list-style-type: none"> <li>• Keynote talk</li> <li>• Six contributed talks</li> <li>• Poster presentations</li> </ul>	<p>Theme 3: <b>Cryosphere in a Warming World</b> (Greg Flato and Vladimir Kattsov)</p> <ul style="list-style-type: none"> <li>• Keynote talk</li> <li>• Six contributed talks</li> <li>• Poster presentations</li> </ul>	<p>Theme 5: <b>Prediction and Attribution of Extremes: From Climate to Weather</b> (Gabi Hegerl and Francis Zwiers)</p> <ul style="list-style-type: none"> <li>• Keynote talk</li> <li>• Six contributed talks</li> <li>• Poster presentations</li> </ul>	<p><b>Concluding Session</b></p> <p><b>Climate Research, Prediction, Services and Observations from Space in a 10-year Perspective</b> (the Vision of the Symposium)</p> <p><b>Presentation of the Symposium Statement</b></p> <p><b>The Architecture for Climate Monitoring from Space</b></p> <p>Panel discussion: <b>Future Directions and Next Steps</b></p> <p><b>Closing Remarks</b></p>
<b>Afternoon</b>	<p>Monitoring, Understanding and Predicting Changes in Atmospheric Composition: Greenhouse Gases and Aerosols</p> <p>Evaluating and Improving Climate System Models: Earth Observation in Data Assimilation, Inverse Modelling and Field Experiments</p> <p>Earth System Processes and Detecting Earth System Change (Future Earth-Terrestrial and Marine Ecosystems)</p> <p>Assessing Progress and Requirements for Systematic Observation of Climate (GCOS)</p> <p>Reanalysis: Reconstructing the Past Weather and Climate from Earth Observation</p> <p>Earth Observation and Climate Services: Monitoring and Predicting the Climate System from Months to Decades</p> <p>WCRP Grand Science Challenges - Climate Information for Decision Makers</p>	<p>Theme 2: <b>The Changing Water Cycle</b> (Graeme Stephens and Catherine Senior)</p> <ul style="list-style-type: none"> <li>• Keynote talk</li> <li>• Six contributed talks</li> <li>• Poster presentations</li> </ul> <p><b>"Climate Information for Decision Makers"</b></p> <ul style="list-style-type: none"> <li>• Panel discussion followed by Q&amp;A</li> </ul>	<p>Theme 4: <b>Ocean Circulation and Regional Sea Level Rise</b> (Detlef Stammer and Anny Cazenave)</p> <ul style="list-style-type: none"> <li>• Keynote talk</li> <li>• Six contributed talks</li> <li>• Poster presentations</li> </ul> <p>ESA Earth Observations and Climate Change Initiative</p>	<p>Theme 6: <b>Regional Climate Variability and Change: Enabling Climate Services</b> (Lisa Goddard and Filippo Giorgi)</p> <ul style="list-style-type: none"> <li>• Keynote talk</li> <li>• Six contributed talks</li> <li>• Poster presentations</li> </ul>	

Participants are invited to submit abstracts for posters and oral presentations at the conference website:  
[www.theclimatesymposium.com](http://www.theclimatesymposium.com)



Deadline for abstract submission:  
**15 April 2014**

More information for people interested in presenting talks or posters can also be found on the conference website.

## Support for students, early career scientists and scientists from developing countries

Grants are available to enable and support the participation of students, early career scientists and scientists from developing countries to attend the symposium. Please consult the Climate Symposium website for more information and to apply for a grant.

## Important dates

- 15 MAR 2014** Deadline to submit application for travel support
- 15 APR 2014** Deadline to submit abstracts for those requesting travel support
- 15 APR 2014** Deadline to submit abstracts (everyone)
- 15 MAY 2014** Early Registration deadline

Register now at:



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