



## Union Award Presentations and Medal ceremony

**US1 Wednesday 15:30-19:30, Room D, Convener Gerald Ganssen.**

**After a short update on the International Year of Planet Earth, all winners will receive their medal. The medal ceremony and the Union Medal Lectures will be broadcasted live and online. Please enter the Live Stream on 16 April from 16:00 at: [www.web-stream.at/egu](http://www.web-stream.at/egu).**

**Jean-Pierre Bibring**

Jean Dominique Cassini Medal

Lecture: Mars history and evolution, revisited by on-going space exploration.

Present space exploration of Mars enlightens its history and evolution in an unprecedented way, exhibiting eras during which Mars might

have harboured life. Jean-Pierre Bibring will present results in the framework of the planned missions in which Europe might play a major role.

He receives the Cassini Medal for his outstanding contributions to planetology over many years.

**Pierre Morel**

Alfred Wegener Medal.

Lecture: Models and Reality

Models are needed to create new and more powerful frameworks for understanding nature.

Observational facts or data are needed to validate and falsify the accepted models, so that new theoretical ideas could take form.

Computing machines have enabled fast scientific advances, but do these stand upon an adequate factual

basis? Climate modelling will be used as an example to discuss the opportunities and risks of these new developments.

**Anthony B. Watts**

Arthur Holmes Medal

Oral lecture: Isostasy, Flexure and Geological Processes

The Earth's crust tends to an equilibrium state of flotation on the underlying mantle.

Loads such as earthquakes, ice, and volcanoes deform the crust and mantle on a range of spatial and temporal scales and may delay, or even prevent, this equilibrium from being reached.

In this lecture, we will examine the patterns of deformation and their implications for the physical properties of the crust and mantle, and the tectonic control on geological processes.

**Planet Earth: Directions on Use**

Presentation by Angie Rattay

Angie Rattay designed the "Planet Earth - directions for use" box. Every visitor of the General Assembly will receive one. The design consists of a set of 4 directions-on-use for our planet: atmosphere (air), biosphere (biomass), hydrosphere (water), litho- and pedosphere (soil). The project has been nominated for the European Design Awards. Today, Angie Rattay will present her project during this Union Symposium.

More info: [www.neongruen.net](http://www.neongruen.net) or [www.angierattay.net](http://www.angierattay.net).



## Geosciences is responsibility

**The point of view of...**

**Natalia Bezaeva. Expert in the Effect of pressure, shock and irradiation on magnetic properties of meteorites and terrestrial rocks at University of d'Aix-Marseille 3 and the University of Moscow.**

"We scientists are those responsible for solving problems. We have a responsibility in communicating science to the general public. Take for example environmental problems. I'm sure people

will change their behaviour for the benefit of the environment if they have the knowledge how to accomplish this.

In my work I've met scientists, especially in Russia, who do not share their science with the public. They think that ordinary people won't understand.

But during a public lecture in France, I've seen a different approach. My professor talked then about his fieldwork on finding meteorites. Afterwards people

stuck to him for two hours to ask questions. They were so interested.

To summarize: Scientists, come back to Earth, and explain people in normal language what you do in your laboratories!"

Natalia Bezaeva has posted her CV on the vacancy board (Yellow Level)

Want to share your view on geosciences?  
Please contact us at [egu-press@landforms.org](mailto:egu-press@landforms.org)

### *Wildfires, Weather and Climate*

*This session, which is included in the Natural Hazards Programme, will consider the relation between weather/climate and wildfire activity. Special attention is devoted to the impacts of weather systems, large-scale tele-connections, extreme events, and climate change on different aspects of wildfires using both analytical and model approaches. IS35 Wednesday 08:30-12:00, Room 28, Convener Mario Pereira.*



## Medal Lectures

Jean-Pierre Brun  
Stephan Mueller Medal  
Room 5, 11:15.

Theo W.J. van Asch  
Sergey Soloviev Medal  
Room 25, 10:40.

William Richard Peltier  
Milutin Milankovic Medal  
Room 13, 08:30.

Donald B. Dingwell  
Robert Wilhelm Bunsen  
Medal. Room 22, 15:30.

Guri I. Marchuk  
Vilhelm Bjerknes Medal  
Room 10, 10:30.

## CARBOOCEAN: How much CO<sub>2</sub> do the oceans take-up?

The ocean is a major sink for anthropogenic CO<sub>2</sub>: currently 25% of the CO<sub>2</sub> emissions is absorbed by the world's oceans. Carbon dioxide is the most important manageable driving agent for climate change. Hence, for future climate predictions it is essential to quantify the amount and timing of oceanic CO<sub>2</sub> up-take. The EU funded CARBOOCEAN program combines field measurements, advanced models and process studies to accurately constrain the marine carbon cycle and possible climate feedbacks. BG3.1 Wednesday 15:30 – 17:00, Room 21, Convener Christoph Heinze.

## COLOPHON

### EGU Press Office

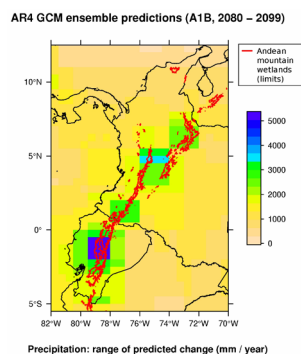
Dick van der Wateren  
Jacobijn Zeijlemaker  
Thomas Kruijer  
Anne Martens

## Is modelling more than a fashionable indoor sport?

Speakers: Keith Beven,  
David Stainforth, Stephan Sobolev

Computer models are useful tools for environmental prediction. However, they are constrained by the availability of data, computer power and scientific knowledge. In an interactive discussion, world-leading experts from different disciplines give their view on the predictive capacity of environmental models, their uncertainty and the implications for

society. TM1 Wednesday 19:00-20:00, Room 5, Convener Wouter Buytaert.



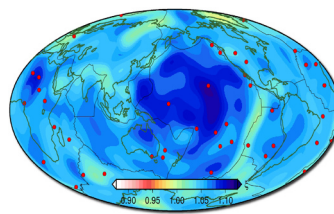
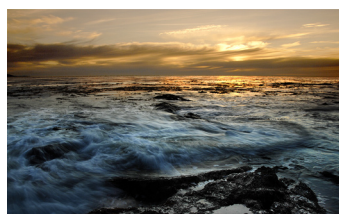
Picture above: For some ecosystems, climate change predictions show an extreme variability.

## Keynote Lecture

'Plates, slabs, and keels' by Thorsten Becker  
Plate tectonics is part of thermal mantle convection, yet significantly complicated by chemical heterogeneity due to fractionation. Applied Geodynamics provides new insights by integrating mineral physics and large-scale computa-

tions into a grain- to plate-scale flow model.

Seismic anisotropy can be used to infer lateral viscosity variations, the stirring action of continental keels, and the volatile content of the asthenosphere, with implications for the long-term evolution of the Earth. KL1 Wednesday 19:00-20:00, Room 10.



## Science impact in hydrology

How should young hydrologists deal with future research activities to find solutions to the urgent worldwide water problems? How should they deal with water scarcity and sanitation? How will they be able to handle water resource

management, drought and flood management or pollution remediation? Highly experienced hydrologists will participate in this open discussion and the convener aims to produce a published report of the debate. TM4 Wednesday 19:00-20:00, Room 29, Convener Alberto Montanari.

You can reach us at the Press Centre of the Austria Center Vienna. Any comments or contributions are more than welcome.

Telephone: +31 (0)6 54604741  
E-mail: [egu-press@landforms.org](mailto:egu-press@landforms.org)

## Living in extreme environments

Research programmes on Life in Extreme Environments (LEXEN) are brought together in a new European project.

The project aims to do research in a coordinated, strategic, multidisciplinary and multinational way. This will hopefully result in an increased knowledge on extreme life, varying from subglacial lakes to hot deserts, both on Earth as well as in Space.

Anybody who is interested in this project and in airing their views on LEXEN, can join today's Town Hall meeting.

TM6 Wednesday 19.00-20.00, Room 7, Convener Cynan Ellis-Evans.

## ANDRILL - Drilling into Antarctica's dynamic past

More than 2 kilometres of deep drill holes in Antarctica tell a fascinating and very complete story of advancing and retreating ice, rising mountain chains and emerging rifts. One project drilled into the sea floor beneath an 85 m-thick shelf of ice and nearly 900 metres of water. Together, the two deepest drill-holes on the Antarctic continent give an unprecedented and detailed picture of the last 17.5 million years of Antarctica's geological history. Various lectures during: CL31 Wednesday 10.30-12:00, Room 26, Conveners Fabio Florindo, David Harwood, and Rainer Gersonde.

