



# EGU Today

DAILY NEWSLETTER  
FROM THE GENERAL ASSEMBLY

THURSDAY  
APRIL 23  
2009

## Abruzzo Earthquake, Italy, 6 April 2009



After the devastating earthquake that shook central Italy on Monday 6 April 2009, geoscientists continued to record aftershocks, landslides and regional deformation of the land surface. This session comprises four invited presentations that focus on different aspects of the earthquake, followed by a discussion. Massimo Cocco and Riccardo Lanari will come straight from the field to present the latest measurement data.

## Can we control climate change risks and what does it cost?

In order to control climate change risks to manageable levels, global emissions of greenhouse gases need to be reduced to more than 50% below 1990 levels by 2050. This means that they have to start declining by 2015-2020, Bert Metz argues. Metz is Fellow of the European Climate Foundation and former co-chair IPCC Working Group on Mitigation. He will review the options

These include seismic measurements of the whole earthquake cycle (Massimo Cocco) and surface deformation based on microwave imaging from space (Riccardo Lanari). Fabrizio Storti will provide the geological background for the earthquake, while Warner Marzocchi will focus on the possibility of earthquake forecasting.

**US6, Thursday April 23**

**18:00-20:00, Room 13**

**Convener: Fabrizio Storti**

that exist to achieve these very challenging objectives. The economic reduction potential of these options, as well as their costs and the policies needed to achieve tangible results, will be discussed. This Union Symposium has even more to offer. Andy Chadwick's talk will focus on methods and tools of monitoring CO<sub>2</sub> storage sites, while Hans Müller-Steinhagen and Franz Trieb will discuss sustainable electricity and water for Europe, Middle East and North Africa.

**US5, Thursday April 23**

**13:30-14:00, Room D**

**Convener: Hermann Held**

## Reassuring the future

Natural catastrophes have a disastrous effect on people and the environment. The Willis Research Network (WRN), supported by Munich Re Group, Risk Management Solutions and Swiss Re, organises a session on natural catastrophe risk assessment. In order to effectively manage imposing risks, there is a pressing necessity to accurately estimate the scale and likelihood of future natural hazards worldwide. The scientific community provides the critical link between theory and practice of natural catastrophes and the multi-faceted risks involved. Key topics include the impact of natural hazards on effective decision making in public policy, the relevance of commercial applications in assessing natural

## Exploring deep Earth through deep scientific drilling

Scientific drilling provides access to information recorded in deep subsurface layers. Understanding climate and environmental changes, sea-level variations, geohazards, natural resources, the structure and evolution of the Earth's crust and the nature and extent of the deep biosphere all require input from scientific drilling data. The ICDP and IODP international programmes undertake drilling respectively in continental and oceanic environments. Today, IODP presents two highlights: an interdivision ses-



## Flood barriers in the River Thames

hazards and future trends in natural catastrophe risk assessment. Prevention of seismic risk in Italy, reassurance of flooding risk in the Thames Gateway and temperate climate hurricane prediction are all hot-off-the-press topics that will receive considerable attention in this session. Three of the world's leading experts in catastrophe risk modelling will round off the day with a discussion and panel session.

**NH10.1/EG5, Thursday April**

**23 08:30-19:00, Room 6**

**Convener: Matthew Foote**

sion called "Beyond 2013: The Future of European Scientific Drilling Research" (**SSP18/EG12/CL64/GMPV23/TS9.3, Thursday 13:30-15:00, Room 36**). Today's townhall meeting is an opportunity to identify remaining exciting challenges to take up for a better understanding of the Earth system and its changing environment (**TM2, Thursday 19:00-20:00, Room 1**).



## Today's EGU Medal Lectures

Petrus Peregrinus Medal  
**Christopher A. Jones**  
ML10, 17:30-18:30, Room 33

Petrus Peregrinus Medal  
**Eigil Friis-Christensen**  
ML11, 18:30-19:30, Room 33

Henry Darcy Medal  
**Demetris Koutsoyiannis**  
ML13, 18:30-19:30, Room 31

Fridtjof Nansen Medal  
**Jochem Marotzke**  
ML21, 10:30-11:15, Room D

Hans Oeschger Medal  
**Thomas Stocker**  
ML23, 10:30-11:15, Room 13

Plinius Medal  
**Helen Crowley**  
ML24, 15:45-16:30, Room 6

Lewis Fry Richardson Medal  
**Stéphan Fauve**  
ML25, 13:30-14:20, Room 15

Outstanding Young Scientist  
**Johan Weijers**  
ML29, 10:30-11:00, Room 22

## The significance of marine technology in science communication

Enormous progress has been made in the field of marine technology. Sophisticated underwater vehicles have been operated on seagoing expeditions. By deploying camera and video systems on these instruments new and fascinating insights about deep ocean ecosystems

## Molecular fossils reveal continental climate history

Climate scientists have always had problems describing past climate changes on land. Continental records are usually short and fragmentary. The key to reconstructing continental climate change lies in the ocean. Johan Weijers developed a new proxy for continental temperature reconstruction based on membrane molecules of soil bacteria. The relative distribution of the fossilized molecules in marine sedimentary archives close to river mouths re-

tems have been gained. In this session public relations experts will discuss challenges and opportunities of how to communicate marine research to journalists, teachers, students, and the wider public, particularly by using videos and photos from the deep sea. Assisted by Nature Geoscience editor Heike Langenberg a (hopefully) vivid discussion with the audience will be fostered.

**EOS12, Thursday 15:30-17:00, Room 9**  
**Convener: Albert Gerdes**

veal the temperature history of the adjacent river basin. This finding gives a crucial insight into the climatic relationship between continent and ocean. Johan Weijers will receive the Outstanding Young Scientist Award for his distinguished research on biomarkers.  
**ML29, Outstanding Young Scientist Lecture, Thursday 10:30-11:00, Room 22**  
**Convener: Jelle Bijma**

## EGU Premiere: Sustainable development in geosciences

**EG3, Thursday 17:30-19:00, Room 16, Convener: Daniel Schertzer**

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**The remotely operated vehicle MARUM-QUEST takes a sample with his grabber at 4,000 m depth in the Atlantic Ocean (credit: MARUM Bremen).**

## Lunar science and exploration

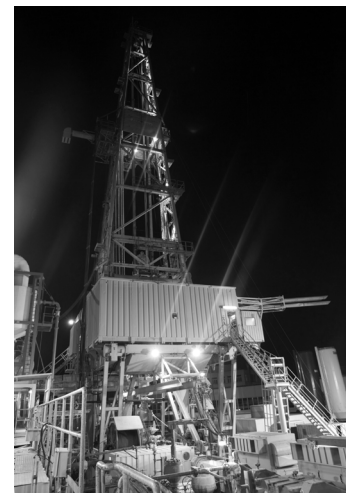
Lunar science is having a renaissance with new exciting missions being developed and with possible human return to the Moon around 2020. **PS2.8, Thu 13:30-19:00, Room 11**  
**Convener: Bernard Foing**

## Ten education sessions (EOS) at EGU 2009

This year, EGU is bringing education much more prominently. Through a concentrated effort there are nine general EOS sessions (125 abstracts) in addition to the popular GIFT (Geosciences Information for Teachers workshop). This is a

## Colophon

**EGU Today 2009**  
**Landforms Science & Media**  
**Thomas Kruijer**  
**Rogier Overkamp**



## An inexhaustible heat source

Heat stored in the Earth is an inexhaustible source of energy that could be used almost anywhere in the world. Continuously rising oil and gas prices and the increase of the greenhouse gas CO<sub>2</sub> calls for more sustainable energy resources. Geothermal technologies for power generation or direct use operate with little or no greenhouse gas emissions and thus have great CO<sub>2</sub> emission reduction potential when substituting fossil energy sources. Various speakers, including Ladislaus Rybach, will go into detail about modern technologies for deep and shallow geothermal energy. **HS3.3, Thursday 13:30-17:00, Room 33**  
**Convener: Philipp Blum**

significant increase over previous years, and a strong attempt to make EGU more relevant for education. Education themes range from natural hazards, climate, and hydrology, to cryospheric sciences and non-linear processes. **Please refer to <http://meetingorganizer.compernicus.org/EGU2009/meetingprogramme/EOS> for more information on these sessions.**

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