



IUGG Conference Website: <http://www.iugg2011.com/program.asp>

Outreach Program Appeal

In 2011 Australia will hold one of the world's largest meetings of earth scientists. They will explore all the physical aspects of our planet, from deep in the Earth's core to our place in space.

Given recent natural disasters-such as the Pakistan floods, Black Saturday bushfires, Hurricane Katrina, the 2004 Boxing Day Tsunami, 2010 Chile earthquake, Iceland's Eyjafjallajökull volcano-the Earth seems ever more restless and destructive, and the impact on human life and infrastructure is increasingly heavy.

So it is important to understand how the Earth works-which means the 25th General Assembly of the International Union of Geophysics and Geodesy in Melbourne from 28 June to 7 July 2011 will be a focus of attention, not only for the 3,000 delegates expected to attend, but for many others besides.

We want to extend the conversation from the conference, bringing earth science to the wider community. We'd welcome your thoughts and support to achieve this.

We're helping the conference team create a public and media outreach program to bring the ideas of the speakers to the widest possible audience and to engage the community in discussing the hot issues in earth science-from water security to climate change; from natural disaster warnings to tracking the best surf waves.

This note is intended to start that conversation. Over the next two months we want to identify:

- Groups interested in hosting public events in association with the conference;
- Opportunities to reach students and teachers;
- Potential supporters and sponsors of public and media outreach; and
- Any other ideas that will engage a wide audience in Australia and internationally.

To get you thinking, here are notes on some of the conference speakers, and a list of potential topics.

Speakers already committed to the conference include:

- **Thomas H. Jordan**, director of the Southern California Earthquake Center, who has helped redefine plate tectonics and how our continents 'sail' across the surface of the Earth;
- **Greg Ayers**, director of the Australian Bureau of Meteorology;
- **David Vaughan** from the British Antarctic Survey who is leading the efforts to measure ice fields and deliver global sea-level rise projections for the next 200 years;
- **Demetris Koutsoyiannis**, a hydrologist at the National Technical University of Athens. His work in modelling water resources is challenging the assumptions behind global climate change models. He has also written on the history of water resource development during antiquity. Who invented the bathroom and when?
- **Daniel Baker** leads the Laboratory for Atmospheric and Space Physics at the University of Colorado-Boulder. He is working to access data from the nuclear explosion detectors that are built into every GPS satellite and which could reveal much about powerful lightning strikes, space hazards like meteoroids and man-made debris, and severe solar and space weather events;

- **Stephen Self**, from the US Nuclear Regulatory Commission, who has published widely on the impact of large-scale volcanic eruptions on the environment and society;
- **Brian Kennett**, chair of the Australian Academy of Science Committee on Earth Science, has conducted a systematic study of the seismic properties across our continent; and
- **Anny Cazenave** from the French space agency CNES whose work on ocean topography suggests that sea levels are rising faster than predicted.

The conference will cover practically everything physical about our planet including:

- natural disaster warning systems;
- remote sensing and satellite measurement;
- climate change;
- earthquakes, tsunamis and tectonic plate movement;
- seamounts, life, and geological activity of the deep ocean;
- deep sea drilling and mining;
- hot rocks and geothermal energy;
- underground water resources;
- radioactive elements;
- space weather and cosmic radiation;
- icebergs, glaciers and polar science;
- snow and avalanches;
- mountain formation;
- evolution of the earth;
- volcanoes;
- new remote exploration technologies, such as magnetotellurics;
- Earth's magnetic field, its reversal, and the wandering magnetic poles;
- geoengineering and renewable energy;
- interplanetary comparisons; and
- mineral formation.

For further information on the Public and Media Outreach program, please contact me:

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