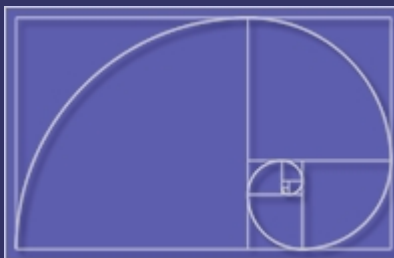
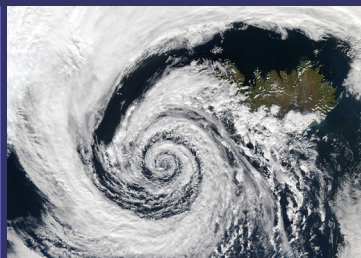




CMG 2010



28th IUGG Conference on Mathematical Geophysics

Modelling Earth Dynamics: Complexity, Uncertainty and Validation

7-11 June 2010, Pisa, Italy

Understanding the evolution of our planet is becoming of increasing importance. The variable dynamics of the Earth's solid and fluid components testify to the complexity of non-linear relationships governing such coupled and multiphase systems. Mathematical models are a key tool for understanding these relationships, and represent the only mean for forecasting their evolution. The goal of this meeting is to present the state-of-the-art modelling capability to represent the different dynamics of Earth's components. Theoretical models of solid-earth dynamics, such as earthquake and volcanic processes, and of atmospheric and oceanic dynamics, including climatic and biological evolutionary processes, are welcome. The focus will be on the capability of models to describe the complex evolution of Earth systems and quantify the sources of uncertainty in their dynamics, as well as to reproduce direct observations and laboratory experiments of the investigated processes.

Scientific program

Planned sessions

- Geophysical fluid dynamics I - Volcanoes
Conveners: Giovanni Macedonio and Michael Manga
- Geophysical fluid dynamics II - Sub-surface and surface flows
Conveners: Einat Aharonov and Daniel Schertzer
- Geophysical fluid dynamics III – Atmosphere and ocean
Conveners: Claudia Pasquero and Dick Peltier
- Brittle deformation and computational seismology
Conveners: Yehoda Ben-Zion and Massimo Cocco
- Geodynamics and geomagnetism
Conveners: Matthias Holschneider and Mioara Mandea
- Environmental systems and climate
Conveners: Daniel Rothman and Eli Tziperman
- Quantifying the uncertainty in Earth systems
Conveners: Willy Aspinall and Gordon Woo
- Data assimilation and model validation
Conveners: George Bergantz and Alik Ismail-Zadeh
- Computational geophysics: modern algorithms and applications
Conveners: Marc Spiegelman and Dave Yuen

Special session in memory of Prof. Albert Tarantola (by invitation only)

Can our models only predict the irrelevant?

Chairs: Daniel Rothman and Augusto Neri

Local Organizing Committee

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Dick Peltier (IAMAS representative)
Gordon Swaters (IAPSO representative)
Yehuda Ben-Zion (IASPEI representative)
Augusto Neri (IAVCEI representative)

Important dates

- **18 January 2010** - registration, abstract submission and hotel booking open
- **15 March 2010** - abstract submission deadline
- **15 April 2010** - conference programme and schedule
- **30 April 2010** - online registration deadline
- **7/11 June 2010** - 28th CMG Conference

Conference venue

The conference will take place at the Dean's building of the Faculty of Mathematics, Physics and Natural Sciences of the University of Pisa. The building, located in the Polo Fibonacci campus inside the walls of Pisa, includes a conference room for about 230 people (where all sessions will take place), two smaller conference rooms and a large hall dedicated to poster exhibitions.

Field trip

A one-day excursion focusing on the marble quarries and geology of the Apuan Alps will take place on Wednesday 9 June.

Leaders: Ilaria Isola, Patrizia Landi, Francesco Mazzarini, Giancarlo Molli

Information

For receiving forthcoming conference information, circulars, and notifications please send your name, affiliation, and e-mail address to cmg2010@pi.ingv.it or visit <http://cmg2010.pi.ingv.it>

Technical support : Luca Nannipieri , Patrizia Pantani , Renata Rapuzzi - INGV Pisa

