

Dear Colleagues,

We would like to draw your attention to the session 'Inverse Problems and Data Assimilation in Geosciences' (session NP5.2, Programme Group 'Nonlinear Processes in Geosciences') to be held during the 2011 General Assembly of the European Geosciences Union (Vienna, Austria, 03 – 08 April 2011).

This session will be devoted to all aspects of inverse problems and data assimilation in geophysics. A detailed description is given below.

The deadline for submission of abstracts is 10 January 2011, 24:00 (UTC +1).

Limited financial support is available to assist participants in the General Assembly. The deadline for submission of request for financial support is 03 December 2010, 24:00 (UTC +1).

General information on the General Assembly, in particular instructions for submitting abstracts and information on financial support, is available at the address

<http://meetings.copernicus.org/egu2011/>

Please forward this announcement to colleagues you think may be interested.

With regards,

Olivier Talagrand
Peter Jan van Leeuwen
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Conveners

Description of the session

Inverse Problems are encountered in most fields of Geosciences. One particularly important class of inverse problems, in the context of predictability, is assimilation of observations in numerical models of geophysical processes. A large fraction of observations (in particular, satellite observations, as well as all forms of tomographic observations) are 'indirect' observations, bearing on complicated combinations (often, integrals over some line in space) of the physical parameters to be estimated. The associated 'data retrieval' procedures are either an integral part of assimilation, or a necessary preliminary step preceding assimilation proper.

This session will be devoted to the presentation and discussion of methods for inverse problems, and particularly data assimilation, in ocean and atmosphere dynamics, solid earth geophysics, atmospheric chemistry, hydrology and, more generally, in all fields of geophysics. The presentation and discussion of recent progress due to the use of data assimilation in geophysics will be of particular interest.

Special emphasis will be put on methods and recent developments of mathematical aspects of inverse problems, particularly in situations when a local linear hypothesis is not valid. Contributions dealing with algorithmic aspects and numerical implementation of the solution of inverse problems are welcome.