



IAHS 2017 SCIENTIFIC ASSEMBLY

10 – 14 JULY 2017

Port Elizabeth, South Africa

**"Water and Development: scientific challenges
in addressing societal issues"**

The South African National Committee of the International Association of Hydrological Scientists (SANCIAHS) invites you to participate in the 2017 IAHS General Assembly to be held from July 10-14 in Port Elizabeth, South Africa.

The theme of the meeting is "Water and Development: scientific challenges in addressing societal issues" which is particularly appropriate in the context of an IAHS General Assembly meeting being held for the first time in sub-Saharan Africa and is well aligned with the IAHS Panta Rhei.

South Africa has a rich and varied hydrological history and has been a research leader in many aspects of hydrology through years of paired catchment and process hydrology research, model development and in the inclusion of scientific knowledge as exemplified by the South African National Water of 1998. SANCIAHS is a strong and active network representing South African hydrologists and has been active for nearly 40 years recently hosting its 18th national symposium. SANCIAHS is joined by Waternet as a major scientific partner in hosting the 2017 General Assembly. WaterNet is a southern Africa regional network of university departments and research and training institutes active in integrated water resources management.

Topic: Extreme events: links between science and practice

Conveners: Ennio Ferrari, David Hannah, M. Carmen Llasat, Enrica Caporali, Radu Drobot, Jasna Plavsic, Yves Trambly, Elena Volpi

Supporting commission(s) / organisations: ICSW, ICSH, Panta Rhei

Extreme climate events often cause several kinds of water-related disasters. Moreover, changes in the frequency and severity of the physical events mainly affect their hazard, but population and assets at risk have also increased, with serious consequences for the huge damages deriving from disasters. Aiming at mitigating the impacts of water-related natural disasters, the hydrological community is effectively involved in the analysis of spatial and temporal distribution of the water-related extreme events. In particular, the use of high-resolution models at timescales relevant to decision-making, and an increasing attention on the uncertainty estimation of hydrological modelling allow to evaluate the features of the different models and to improve predictive skill. Scientific results have to be transformed into applied procedures for reducing the vulnerability of people exposed to high risks. To successfully cope with extreme events, efficient civil protection strategies also need the transfer of the correct information of the risks from scientists to end-users. This link between science and practice requires serious efforts for an actual improvement.

Aiming at reducing risks of vulnerable population and economic and social costs associated with extreme events, connections with government and public agencies, local authorities and communities, voluntary groups and individuals have to be strengthened. The main aim of the topic is to focus on the actual gap between science and practise. Contributions are expected on the following subjects:

- Theoretical approaches and methodological strategies for coping with hydrological extreme events.
- Spatial distributions of water-related extreme events at timescales relevant to decision-making.
- Efficiency of predicting extreme events (real-time forecasting, nowcasting models and warning systems).
- Use of remote sensing for advance in understanding and predictions of extremes.
- Reduction of uncertainty in estimating extreme events at ungauged sites.
- Prediction of impacts of climate and land-use change on extreme events.
- Transfer of knowledge to environmental protection agencies and water utilities.
- From hazard and risk maps to risk management plans.
- Monitoring and communication of extreme events for sharing of resources and information.
- Prevention and education of society for improving resilience against extreme events.
- Interaction with local stakeholders for ensuring assistance to vulnerable people and preparedness of population before, during and after extreme events.

Conference web site: <http://cwrr.ukzn.ac.za/iahs/call-for-papers/iahs-2017-in-south-africa---invitation>

Submission of abstracts is open via the Copernicus online system
http://meetings.copernicus.org/iahs2017/contribution_management/how_to_submit.html.