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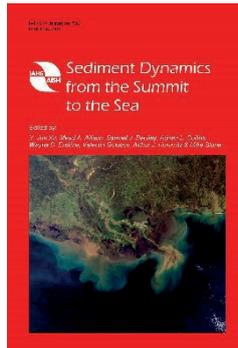
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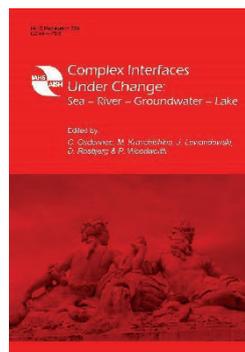
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HP2: Land–Ocean Interaction – Hydrodynamics and Biogeochemistry, and

HP3: Implications of Sea Level Change for the Coastal Zone.

The hydrosphere is dynamic across the major compartments of the Earth system: the atmosphere, the oceans and seas, the land surface water, and the groundwater within the strata below, and the interfaces between them are complex.



Available spring 2015

Hydrological Sciences and Water Security: Past, Present and Future

(IAHS Publ. 366) Proceedings of the June 2014 Kovacs Colloquium, UNESCO, Paris

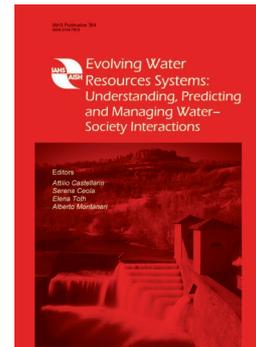
Remote Sensing and GIS for Hydrology and Water Resources

(IAHS Publ. 368) Proceedings RSHS14 and ICGRHWE14, Guangzhou, China, August 2014

Evolving Water Resources Systems: Understanding, Predicting and Managing Water–Society Interactions

Editors: *Attilio Castellarin, Serena Ceola, Elena Toth & Alberto Montanari*

IAHS Publ. 364 (June 2014)
ISBN 978-1-907161-42-1, 548 + xii pp. Price £118.00



A selection of 89 peer-reviewed papers addressing topics associated with water resources assessment and management in a changing environment, and particularly

the two-way interaction between water and society, the focus of the Pantarhei IAHS research initiative (<http://www.iahs.info/pantarhei>). Water resources systems, catchment hydrology, eco-hydrology, groundwater hydrology, water security and socio-hydrology are driving scientific areas, which are covered.

Hydrology in a Changing World: Environmental and Human Dimensions

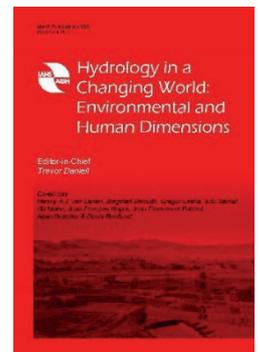
Editor: *Trevor M. Daniell*

Co-Editors: *H.A.J. Van Lanen, S. Demuth, G. Laaha, E. Servat, G. Mahe, J.-F. Boyer, J.-E. Paturel, A. Dezetter & D. Ruelland*

IAHS Publ. 363 (October 2014)
ISBN 978-1-907161-41-4, 478 + xii pp. Price £105.00

FRIEND-Water (Flow Regimes from International and Experimental Network Data) programme is a collaborative research initiative under the umbrella of UNESCO's International Hydrological Programme (IHP); it facilitates understanding of how climate, river basin and human factors influence the spatio-temporal distribution of water. This reviewed

proceedings of the 7th World FRIEND Conference (France, October 2014) contains 75 contributions on changes in hydrological processes and their impacts, including ecological flows, erosion and sedimentation, and the development of adaptable water management and water policies to account for these impacts, as well as changes in the frequency and variability of floods and droughts due to a variety of factors.



Considering Hydrological Change in Reservoir Planning and Management

Editor: *Andreas Schumann*

Co-editors: *Vladimir Belyaev, Emna Gargouri, George Kuczera, Gil Mahé & Stephen Mallory*

IAHS Publ. 362 (July 2013)

ISBN 978-1-907161-40-7, 214 + x pp. Price £61.00

An excellent overview of contemporary problems in reservoir management, from planning aspects of large multi-objective reservoirs and of small farm dams in Africa, to governmental matters, to sedimentation issues, to climate change impacts. Given the stochastic nature of hydrological conditions, the limited information available to characterize it and the multi-faceted targets of reservoir

management, reservoir planning and operation are ambitious challenges for hydrologists and water managers.

Understanding Freshwater Quality Problems in a Changing World

Edited by *Berit Arheimer*

Co-edited by *A. Collins, V. Krysanova, El. Lakshmanan, M. Meybeck & M. Stone*

IAHS Publ. 361 (July 2013)

ISBN 978-1-907161-39-1, 372 + xii pp. Price £87.00

Contributions from each continent provide a review of water quality problems worldwide, describing present regional/local freshwater quality status and highlighting research needs. Development into the future, given on-going changes in environment and society, is discussed. Questions addressed are: How to understand the behaviours of changing hydrological systems and impacts on

freshwater quality? How to effectively bring together theoretical and experimental hydrology, and new measurement techniques to advance knowledge of water quality processes for the future? How can the typical

timescales of change be identified? How to estimate/predict the behaviours and patterns of freshwater quality with uncertainty assessment to support risk evaluation?

Cold and Mountain Region Hydrological Systems Under Climate Change: Towards Improved Projections

Edited by *Alexander Gelfan, Daqing Yang, Yeugeniy Gusev & Harald Kunstmann*

IAHS Publ. 360 (July 2013)

ISBN 978-1-907161-38-4, 184 + viii pp. Price £57.00

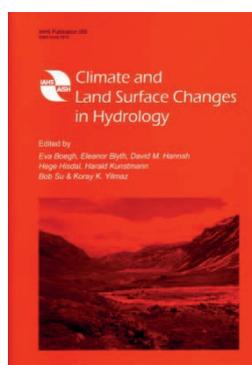
Presents results obtained from experimental and modelling studies of river basins, snow cover, permafrost, glaciers and ecosystems in cold regions located in different physiographic and climatic conditions. Collectively, they reveal physical mechanisms that control cold region hydrological responses to climate change, and consider the sources and magnitude of uncertainties to improve projections of these responses under different geographical conditions and at various time scales.

Climate and Land Surface Changes in Hydrology

Edited by *E. Boegh, E. Blyth, D. M. Hannah, H. Hisdal, H. Kunstmann, B. Su & K. Yilmaz*

IAHS Publ. 359 (July 2013)

ISBN 978-1-907161-37-7, 470 + x pp. Price £95.00



Focuses on field-based and modelling studies addressing the sensitivity of hydrological and hydro-meteorological fluxes of the coupled land-atmosphere system to climate and land-use change at local, regional and global scales.

Includes model-based studies that evaluate methodologies and impacts of using climate and weather prediction data. Several empirical studies, some from remote data-scarce regions, and others using Earth Observations to evaluate temporal and spatial variability in precipitation, evapotranspiration and hydrological predictions, are included.

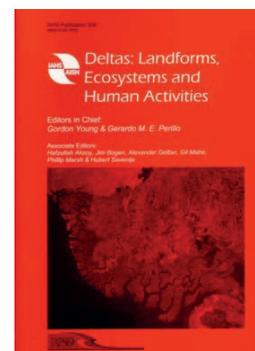
Deltas: Landforms, Ecosystems and Human Activities

Editors *Gordon Young & Gerardo M. E. Perillo*

Associate Editors *H. Aksoy, J. Bogen, Al. Gelfan, G. Mahé, P. Marsh & H. Savenije*

IAHS Publ. 358 (July 2013)

ISBN 978-1-907161-36-0, 246 + x pp. Price £65.00



Deltas pose great challenges, whether marine or lacustrine, as regions of purely natural conditions or of intense human activity set in the context of complex and often rapidly changing

natural environments. Physically they are complex systems, the end-products of catchment processes involving water supply, sediment delivery and water quality – elements that are fast changing over time as a result both of human influences and change in climatic drivers. The contributions result from a joint symposium of the international associations of Hydrological Sciences (IAHS) and of Physical Sciences of the Ocean (IAPSO).

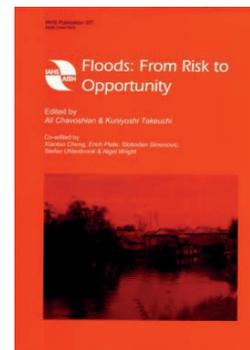
Floods: From Risk to Opportunity

Edited by *A. Chavoshian & K. Takeuchi*

Co-edited by *X. Cheng, E. Plate, S. Simonovic, S. Uhlenbrook & N. Wright*

IAHS Publ. 357 (February 2013)

ISBN 978-1-907161-35-3, 470 + x pp. £96.00



A paradigm shift from focusing on emergency response and recovery to flood risk management is required to build the capacity necessary to cope with floods. The process should

be supported by vulnerability monitoring and development of tools such as standard measures of risk and preparedness in an integrated approach to improve capacity to deal with floods, taking advantage of their benefits while minimizing the social, economic and environmental risks. sediment transport, sediment-associated contamination and pollution, and sediment dynamics in coastal systems.



Further details of these volumes and abstracts of the papers can be seen at: www.iahs.info with information about other IAHS publications and IAHS activities and membership

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