

News

Recent IAHS Publications

International Association of Hydrological Sciences (IAHS) Press,
Centre for Ecology and Hydrology, Wallingford, Oxfordshire OX10 8BB, UK
(web: www.iahs.info)

Streamflow Generation Processes (*First volume in the new **Benchmark Papers in Hydrology Series***)

Selection, Introduction and Commentary by Keith J. Beven
ISBN 1-901502-53-8 (March 2006)

The 30+ papers reproduced in the volume span the period from 1933 to 1984, commencing with Horton's early papers on infiltration and on maximum groundwater levels. With the aid of the Introduction and Commentary, they provide a stimulating insight to developments in this part of the field of hydrology.

<http://www.cig.ensmp.fr/~iahs/benchmark.htm>

Geomorphological Processes and Human Impacts in River Basins

Edited by Ramon J. Batalla & Celso Garcia
IAHS Publ. 299 (October 2005) ISBN 1-901502-28-7

Progress towards a present-day diagnosis of, and future strategies for, environmental management of rivers and catchments, with particular reference to Mediterranean (semi-arid) environments. Geomorphological processes at both the basin and the river levels, and their interactions and relations with human activities that interfere with them, are explored.

<http://www.cig.ensmp.fr/~iahs/redbooks/299.htm>

Hydrology 2020: An Integrating Science to Meet World Water Challenges

Edited by Taikan Oki, Caterina Valeo & Kate Heal
IAHS Publ. 300 (April 2006) ISBN 1-901502-33-3

A milestone capturing the state of the art in hydrological science at the beginning of the 21st century, a chart for hydrologists exploring the new frontiers in hydrology, and a guide for those involved with developing and implementing water policies. It considers the capability that hydrological sciences will and should have by 2020, and what needs to be done now in order to achieve this. There is an emphasis on societal issues and interdisciplinary work pertinent to hydrology as hydrologists cannot work in isolation from society.

<http://www.cig.ensmp.fr/~iahs/redbooks/300.htm>

Predictions in Ungauged Basins: International Perspectives on the State of the Art and Pathways Forward

Edited by Stewart Franks, Murugesu Sivapalan, Kuniyoshi Takeuchi & Yasuto Tachikawa
IAHS Publ. 301 (December 2005) ISBN 1-901502-38-4

Hydrological prediction where data are available is relatively easily achieved, albeit subject to uncertainty that is often unquantified. But, ungauged catchments (by far the majority) present major difficulties for hydrological prediction, hence the IAHS Predictions in Ungauged Basins (PUB) initiative. This volume combines chapters presenting innovative theoretical and practical possibilities of different approaches for prediction, with contributions describing the differing perspectives and specific needs of Australia and Japan in particular.
<http://www.cig.ensmp.fr/~iahs/redbooks/301.htm>

Predictions in Ungauged Basins: Promises and Progress

Edited by Murugesu Sivapalan, Thorsten Wagener, Stefan Uhlenbrook, Erwin Zehe, Venkat Lakshmi, Xu Liang, Yasuto Tachikawa & Praveen Kumar
IAHS Publ. 303 (May 2006) ISBN 1-901-502-48-1

Presents peer-reviewed papers selected from a symposium which coincided with completion of Phase 1 of the IAHS PUB initiative (2003-2012). Guided by the PUB Science and Implementation Plan, the papers are organized into five sections that focus on the distinct PUB themes: Model Improvements through Detailed Process Studies; Model Evaluation and Comparison: Uncertainty Analysis and Diagnostics; New Data Collection Approaches and Model Development; New Modelling Approaches and Methods for Testing Models Against Observations; Progress in PUB Implementation: PUB Working Groups.
<http://www.cig.ensmp.fr/~iahs/redbooks/303.htm>

Calibration and Reliability in Groundwater Modelling: From Uncertainty to Decision Making

Edited by M.F.P. Bierkens, J.C. Gehrels & K. Kovar
IAHS Publ. 304 (May 2006) ISBN 1-901-502-58-9

Great advances have been made in assessment of uncertainty of groundwater model outputs and how to decrease this uncertainty. However, the last step of the triplet uncertainty assessment, uncertainty reduction, and uncertainty management has not yet been properly made. In practice, policy makers still find it hard to cope with model predictions that have been enriched with measures of quantified uncertainty. Several contributions deal with decision making under uncertainty. Considerable progress is reported in the science of determining stochastic well head protection zones and another noticeable advance is the combined modeling and upscaling of spatially heterogeneous hydraulic and geochemical parameters. Further progress in the calibration of groundwater modeling is evident from the use of model reduction techniques in order to calibrate models with millions of grid nodes and the use of remote sensing data.
<http://www.cig.ensmp.fr/~iahs/redbooks/304.htm>

INDIAN NATIONAL COMMITTEE ON HYDROLOGY (INCOH)
(IHP National Committee of India for UNESCO)
Constituted by the Ministry of Water Resources in 1982

INCOH Activities Related to UNESCO's IHP-VI Program

India is actively participating in IHP-VI activities and a detailed program has been chalked out in accordance with IHP-VI themes towards preparation of reports, taking up research studies, organisation of seminars/symposia at national and regional level, and promotion of hydrological education in the country. It is envisaged to participate in all the relevant and feasible programs identified under the various focal areas of IHP-VI themes as given below.

India's participation in IHP-VI program

Theme	Selected Focal Area
1. Global Changes and Water Resources	Integrated assessment of water resources in the context of global land based activities and climate change
2. Integrated Watershed and Aquifer Dynamics	Extreme events in land and water resources
3. Land Habitat Hydrology	Dry lands
4. Water and Society	Raising public awareness on water interactions
5. Water Education and Training	Continuing education and training for selected target groups

INCOH Publications

Publication of Jalvigyan Sameeksha Journal

To disseminate information and promote hydrological research in the country, INCOH brings out the Journal '*Jalvigyan Sameeksha*' (Hydrology Review Journal). The papers published in the Journal are by invitation only. The Journal is widely circulated amongst major organisations and agencies dealing with water resources.

Publication of State of Art Reports

In pursuance of its objectives to periodically update the research trends in different branches of hydrology, state of art reports authored by experts identified by INCOH from various institutes and organisations in India, are published regularly. These reports are circulated free of cost to central and state government agencies including academic and research organisations.

The contents of Jalvigyan Sameeksha Journal do not imply the expression of any opinion whatsoever on the part of the INCOH or the publishers.

JALVIGYAN SAMEEKSHA

(HYDROLOGY REVIEW)

Volume 21, 2006

**THEME: WATER MANAGEMENT UNDER EXTREME
EVENTS – DROUGHTS AND FLOODS**

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Technical Papers

Role of Remote Sensing in Water Management under Extreme Events of Droughts and Floods G. Behera, V. Bhanumurthy, P.V. Raju, S. Jonna, V.V. Rao, G.S. Rao, C.S. Murthy, E. Siva Sankar, K. Abdul Hakeem and K.H.V. Durga Rao	1
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