

# Hydrology Research

An International Journal

volume 49 | issue 3 | June 2018

## Contents

- 597 A multi-scale nested experiment for understanding flood wave generation across four orders of magnitude of catchment area  
**Mark E. Wilkinson and James C. Bathurst**
- 616 Revealing hydrological relations of adjacent karst springs by partial correlation analysis  
**Ana Kadić, Vesna Denić-Jukić and Damir Jukić**
- 634 Role of riparian wetlands and hydrological connectivity in the dynamics of stream thermal regimes  
**Jonathan J. Dick, Doerthe Tetzlaff and Chris Soulsby**
- 648 A calibration-free, robust estimation of monthly land surface evapotranspiration rates for continental-scale hydrology  
**Jozsef Szilagyi**
- 658 Forecasting daily streamflow values: assessing heuristic models  
**Sepideh Karimi, Jalal Shiri, Ozgur Kisi and Tongren Xu**
- 670 Five decades of warming: impacts on snow cover in Norway  
**Jonathan Rizzi, Irene Brox Nilsen, James Howard Stagge, Kjersti Gisnås and Lena M. Tallaksen**
- 689 Evaluating the surface temperature and vegetation index ( $T_s/V_i$ ) method for estimating surface soil moisture in heterogeneous regions  
**Zhaofei Liu, Zhijun Yao and Rui Wang**
- 700 Storm event-based frequency analysis method  
**Changhyun Jun, Xiaosheng Qin, Yeou-Koung Tung and Carlo De Michele**
- 711 Improving forecasting accuracy of river flow using gene expression programming based on wavelet decomposition and de-noising  
**Xiaorong Lu, Xuelei Wang, Liang Zhang, Ting Zhang, Chao Yang, XinXin Song and Qing Yang**
- 724 A multiscale time-space approach to analyze and categorize the precipitation fluctuation based on the wavelet transform and information theory concept  
**Kiyoumars Roushangar, Vahid Nourani and Farhad Alizadeh**



British  
Hydrological  
Society



Società Idrologica Italiana  
Italian Hydrological Society



Deutsche  
Hydrologische  
Gesellschaft



- 744 Improving ANN model performance in runoff forecasting by adding soil moisture input and using data preprocessing techniques  
**Huanhuan Ba, Shenglian Guo, Yun Wang, Xingjun Hong, Yixuan Zhong and Zhangjun Liu**
- 761 Error features of the hourly GSMaP multi-satellite precipitation estimates over nine major basins of China  
**Xianhui Tan, Bin Yong and Liliang Ren**
- 780 Temporal variability of springs in catchment areas located in the Sudeten Mountains  
**Sebastian Buczyński**
- 794 A self-organizing map approach to characterize hydrogeology of the fractured Serra-Geral transboundary aquifer  
**Fabio Iwashita, Michael J. Friedel and Francisco J. F. Ferreira**
- 815 Explicit prediction of expanding channels hydraulic jump characteristics using gene expression programming approach  
**Kiyomars Roushangar and Roghayeh Ghasempour**
- 831 Imputing missing groundwater observations  
**Achiya Dax and Michael Zilberbrand**
- 846 Evaluation of the SWAT model performance for simulating river discharge in the Himalayan and tropical basins of Asia  
**Sangam Shrestha, Manish Shrestha and Pallav Kumar Shrestha**
- 861 Groundwater storage changes and estimation of stream lateral seepage to groundwater in desert riparian forest region  
**Haiyang Xi, Qi Feng, Lu Zhang, Jianhua Si and Tengfei Yu**
- 878 Improved structure of vertical flow velocity distribution in natural rivers based on mean vertical profile velocity and relative water depth  
**S. Song, B. Schmalz and N. Fohrer**
- 893 Impact of GCM structure uncertainty on hydrological processes in an arid area of China  
**Gonghuan Fang, Jing Yang, Yaning Chen, Zhi Li and Philippe De Maeyer**
- 908 Hydrological simulation in a tropical humid basin in the Cerrado biome using the SWAT model  
**Richarde Marques da Silva, José Carlos Dantas, Joyce de Araújo Beltrão and Celso A. G. Santos**
- 924 Determining discharge coefficient of labyrinth and arced labyrinth weirs using support vector machine  
**Kiyomars Roushangar, Mohammad Taghi Alami, Jalal Shiri and Mahdi Majedi Asl**
- 939 New formulation for forecasting streamflow: evolutionary polynomial regression vs. extreme learning machine  
**Mohammad Rezaie-Balf and Ozgur Kisi**
- 954 Quantifying multi-source uncertainties in multi-model predictions using the Bayesian model averaging scheme  
**Shanhu Jiang, Liliang Ren, Chong-Yu Xu, Shuya Liu, Fei Yuan and Xiaoli Yang**