

Research Articles

- 1544** *Joel Arnault, Richard Knoche, Jianhui Wei, and Harald Kunstmann*
Evaporation tagging and atmospheric water budget analysis with WRF: A regional precipitation recycling study for West Africa (doi 10.1002/2015WR017704)
- 1568** *John M. Zachara, Xingyuan Chen, Chris Murray, and Glenn Hammond*
River stage influences on uranium transport in a hydrologically dynamic groundwater-surface water transition zone (doi 10.1002/2015WR018009)
- 1591** *Ylva Sjöberg, Ethan Coon, A. Britta K. Sannel, Romain Pannetier, Dylan Harp, Andrew Frampton, Scott L. Painter, and Steve W. Lyon*
Thermal effects of groundwater flow through subarctic fens: A case study based on field observations and numerical modeling (doi 10.1002/2015WR017571)
- 1607** *S.S. Uhlemann, J. P. R. Sorensen, A. R. House, P. B. Wilkinson, C. Roberts, D. C. Goody, A. M. Binley, and J. E. Chambers*
Integrated time-lapse geoelectrical imaging of wetland hydrological processes (doi 10.1002/2015WR017932)
- 1626** *Tiantian Yang, Xiaogang Gao, Soroosh Sorooshian, and Xin Li*
Simulating California reservoir operation using the classification and regression-tree algorithm combined with a shuffled cross-validation scheme (doi 10.1002/2015WR017394)
- 1652** *Joost R. Delsman, Pieter Winters, Alexander Vandenbohede, Gualbert H. P. Oude Essink, and Luc Lebbe*
Global sampling to assess the value of diverse observations in conditioning a real-world groundwater flow and transport model (doi 10.1002/2014WR016476)
- 1673** *Fabian Nippgen, Brian L. McGlynn, Ryan E. Emanuel, and James M. Vose*
Watershed memory at the Coweeta Hydrologic Laboratory: The effect of past precipitation and storage on hydrologic response (doi 10.1002/2015WR018196)
- 1696** *X. Sanchez-Vila, P. Ackerer, F. Delay, and A. Guadagnini*
Characterization of reciprocity gaps from interference tests in fractured media through a dual porosity model (doi 10.1002/2015WR018171)
- 1705** *Mark Bakker*
The effect of loading efficiency on the groundwater response to water level changes in shallow lakes and streams (doi 10.1002/2015WR017977)
- 1716** *Kamaljit Singh, Branko Bijeljic, and Martin J. Blunt*
Imaging of oil layers, curvature and contact angle in a mixed-wet and a water-wet carbonate rock (doi 10.1002/2015WR018072)
- 1729** *Kevan B. Moffett and Steven M. Gorelick*
Relating salt marsh pore water geochemistry patterns to vegetation zones and hydrologic influences (doi 10.1002/2015WR017406)
- 1746** *M. Panzeri, M. Riva, A. Guadagnini, and S.P. Neuman*
Theory and generation of conditional, scalable sub-Gaussian random fields (doi 10.1002/2015WR018348)
- 1762** *Clelia Luisa Marti, Jörg Imberger, Letizia Garibaldi, and Barbara Leoni*
Using time scales to characterize phytoplankton assemblages in a deep subalpine lake during the thermal stratification period: Lake Iseo, Italy (doi 10.1002/2015WR017555)
- 1781** *Linfeng Fan, Peter Lehmann, and Dani Or*
Effects of soil spatial variability at the hillslope and catchment scales on characteristics of rainfall-induced landslides (doi 10.1002/2015WR017758)
- 1800** *Vivek Sharma, Ayse Kilic, and Suat Irmak*
Impact of scale/resolution on evapotranspiration from Landsat and MODIS images (doi 10.1002/2015WR017772)
- 1820** *Keirnan J. A. Fowler, Murray C. Peel, Andrew W. Western, Lu Zhang, and Tim J. Peterson*
Simulating runoff under changing climatic conditions: Revisiting an apparent deficiency of conceptual rainfall-runoff models (doi 10.1002/2015WR018068)
- 1847** *Ida K. Westerberg, Thorsten Wagener, Gemma Coxon, Hilary K. McMillan, Attilio Castellarin, Alberto Montanari, and Jim Freer*
Uncertainty in hydrological signatures for gauged and ungauged catchments (doi 10.1002/2015WR017635)
- 1866** *A. R. Kacimov and Yu. V. Obnosov*
Tension-saturated and unsaturated flows from line sources in subsurface irrigation: Riesenkampf's and Philip's solutions revisited (doi 10.1002/2015WR018221)
- 1881** *Jinsong Chen, Susan S. Hubbard, Kenneth H. Williams, and Darren L. Ficklin*
Estimating groundwater dynamics at a Colorado River floodplain site using historical hydrological data and climate information (doi 10.1002/2015WR017777)

- 1899** *Piotr Cienciala and Marwan A. Hassan*
Sampling variability in estimates of flow characteristics in coarse-bed channels: Effects of sample size (doi 10.1002/2015WR017259)
- 1923** *Saket Pande and Hubert H. G. Savenije*
A sociohydrological model for smallholder farmers in Maharashtra, India (doi 10.1002/2015WR017841)
- 1948** *Weifeng Yue, Tiejun Wang, Trenton E. Franz, and Xunhong Chen*
Spatiotemporal patterns of water table fluctuations and evapotranspiration induced by riparian vegetation in a semiarid area (doi 10.1002/2015WR017546)
- 1961** *Troy E. Gilmore, David P. Genereux, D. Kip Solomon, John E. Solder, Briant A. Kimball, Helena Mitsova, and François Birgard*
Quantifying the fate of agricultural nitrogen in an unconfined aquifer: Stream-based observations at three measurement scales (doi 10.1002/2015WR017599)
- 1984** *Wei Gong, Qingyun Duan, Jianduo Li, Chen Wang, Zhenhua Di, Aizhong Ye, Chiyuan Miao, and Yongjiu Dai*
Multiobjective adaptive surrogate modeling-based optimization for parameter estimation of large, complex geophysical models (doi 10.1002/2015WR018230)
- 2009** *Tanja de Boer-Euser, Hilary K. McMillan, Markus Hrachowitz, Hessel C. Winsemius, and Hubert H. G. Savenije*
Influence of soil and climate on root zone storage capacity (doi 10.1002/2015WR018115)
- 2025** *Troy E. Gilmore, David P. Genereux, D. Kip Solomon, and John E. Solder*
Groundwater transit time distribution and mean from streambed sampling in an agricultural coastal plain watershed, North Carolina, USA (doi 10.1002/2015WR017600)
- 2045** *Behzad Ghanbarian, Allen G. Hunt, and Hugh Daigle*
Fluid flow in porous media with rough pore-solid interface (doi 10.1002/2015WR017857)
- 2059** *James L. McCallum and Margaret Shanfield*
Residence times of stream-groundwater exchanges due to transient stream stage fluctuations (doi 10.1002/2015WR017441)
- 2074** *Pejman Tahmasebi and Muhammad Sahimi*
Enhancing multiple-point geostatistical modeling: 1. Graph theory and pattern adjustment* (doi 10.1002/2015WR017806)
*Companion to *Tahmasebi and Sahimi* [2016], doi:10.1002/2015WR017807
- 2099** *Pejman Tahmasebi and Muhammad Sahimi*
Enhancing multiple-point geostatistical modeling: 2. Iterative simulation and multiple distance function* (doi 10.1002/2015WR017807)
*Companion to *Tahmasebi and Sahimi* [2016], doi:10.1002/2015WR017806
- 2123** *Kurt C. Solander, John T. Reager, and James S. Famiglietti*
How well will the Surface Water and Ocean Topography (SWOT) mission observe global reservoirs? (doi 10.1002/2015WR017952)
- 2141** *YaoQun Zhou, David Lim, Fausto Cupola, and Michael Cardiff*
Aquifer imaging with pressure waves—Evaluation of low-impact characterization through sandbox experiments (doi 10.1002/2015WR017751)
- 2157** *J. Constantz, R. Naranjo, R. Niswonger, K. Allander, B. Neilson, D. Rosenberry, D. Smith, C. Rosecrans, and D. Stonestrom*
Groundwater exchanges near a channelized versus unmodified stream mouth discharging to a subalpine lake (doi 10.1002/2015WR017013)
- 2178** *E. D. Johnson and E. A. Cowen*
Remote monitoring of volumetric discharge employing bathymetry determined from surface turbulence metrics (doi 10.1002/2015WR017736)
- 2194** *S. Schlüter, S. Berg, M. Rücker, R. T. Armstrong, H.-J. Vogel, R. Hilfer, and D. Wildenschild*
Pore-scale displacement mechanisms as a source of hysteresis for two-phase flow in porous media (doi 10.1002/2015WR018254)
- 2206** *Thomas Ritschel and Kai Uwe Totsche*
Closed-flow column experiments—Insights into solute transport provided by a damped oscillating breakthrough behavior (doi 10.1002/2015WR018317)
- 2222** *Mohammad Azmi, Christoph Rüdiger, and Jeffrey P. Walker*
A data fusion-based drought index (doi 10.1002/2015WR017834)
- 2240** *Khandu, Ehsan Forootan, Maïke Schumacher, Joseph L. Awange, and Hannes Müller Schmied*
Exploring the influence of precipitation extremes and human water use on total water storage (TWS) changes in the Ganges-Brahmaputra-Meghna River Basin (doi 10.1002/2015WR018113)
- 2259** *Athanasios Paschalis, Gabriel G. Katul, Simone Fatichi, Gabriele Manoli, and Peter Molnar*
Matching ecohydrological processes and scales of banded vegetation patterns in semiarid catchments (doi 10.1002/2015WR017679)
- 2279** *R. Farajzadeh, P. Bedrikovetsky, M. Lotfollahi, and L. W. Lake*
Simultaneous sorption and mechanical entrapment during polymer flow through porous media (doi 10.1002/2015WR017885)

- 2299** *John Quilty, Jan Adamowski, Bahaa Khalil, and Maheswaran Rathinasamy*
Bootstrap rank-ordered conditional mutual information (broCMI): A nonlinear input variable selection method for water resources modeling (doi 10.1002/2015WR016959)
- 2327** *Ali Sarhadi, Donald H. Burn, María Concepción Ausín, and Michael P. Wiper*
Time-varying nonstationary multivariate risk analysis using a dynamic Bayesian copula (doi 10.1002/2015WR018525)

Commentary

- 2350** *Martyn P. Clark, Bettina Schaeffli, Stanislaus J. Schymanski, Luis Samaniego, Charles H. Luce, Bethanna M. Jackson, Jim E. Freer, Jeffrey R. Arnold, R. Dan Moore, Erkan Istanbuluoglu, and Serena Ceola*
Improving the theoretical underpinnings of process-based hydrologic models (doi 10.1002/2015WR017910)

Technical Reports: Methods

- 2366** *Qinzhuo Liao and Dongxiao Zhang*
Probabilistic collocation method for strongly nonlinear problems: 3. Transform by time (doi 10.1002/2015WR017724)