Volume 52, Issue 9, September 2016
Pages 6707–7544
ISSN 1944-7973

Water Resources Research

Research Articles

6710 *Boris F. Ochoa-Tocachi, Wouter Buytaert, and Bert De Bièvre*
Regionalization of land-use impacts on streamflow using a network of paired catchments (doi 10.1002/2016WR018596)

6730 *José Luis Salinas, Andrea Kiss, Alberto Viglione, Reinhard Viertl, and Günter Blöschl*
A fuzzy Bayesian approach to flood frequency estimation with imprecise historical information (doi 10.1002/2016WR019177)

6751 *S. Culley, S. Noble, A. Yates, M. Timbs, S. Westra, H. R. Maier, M. Giuliani, and A. Castelletti*
A bottom-up approach to identifying the maximum operational adaptive capacity of water resource systems to a changing climate (doi 10.1002/2015WR018253)

6769 *A. Soueid Ahmed, A. Jardani, A. Revil, and J. P. Dupont*
Joint inversion of hydraulic head and self-potential data associated with harmonic pumping tests (doi 10.1002/2016WR019058)

6792 *Don B. Fox, Donald L. Koch, and Jefferson W. Tester*
An analytical thermohydraulic model for discretely fractured geothermal reservoirs (doi 10.1002/2016WR018666)

6818 *Mariaines Di Dato, Felipe P. J. de Barros, Aldo Fiori, and Alberto Bellin*
Effects of the hydraulic conductivity microstructure on macrodispersivity (doi 10.1002/2016WR019086)

6833 *Tom Bultreys, Luc Van Hoorebeke, and Veerle Cnudde*
Simulating secondary waterflooding in heterogeneous rocks with variable wettability using an image-based, multiscale pore network model (doi 10.1002/2016WR018950)

6851 *Jonathan Reeves and Christine E. Hatch*
Impacts of three-dimensional nonuniform flow on quantification of groundwater-surface water interactions using heat as a tracer (doi 10.1002/2016WR018841)

6867 *Alina R. Tyukhova and Matthias Willmann*
Conservative transport upscaling based on information of connectivity (doi 10.1002/2015WR018331)

6881 *Scott C. Kronholm and Paul D. Capel*
Estimation of time-variable fast flow path chemical concentrations for application in tracer-based hydrograph separation analyses (doi 10.1002/2016WR018797)

6897 *G. H. Steinbakk, T. L. Thorarinsdottir, T. Reitan, L. Schlichting, S. Hølleland, and K. Engeland*
Propagation of rating curve uncertainty in design flood estimation (doi 10.1002/2015WR018516)

6916 *Xu Zhao, Junguo Liu, Hong Yang, Rosa Duarte, Martin R Tillotson, and Klaus Hubacek*
Burden shifting of water quantity and quality stress from megacity Shanghai (doi 10.1002/2016WR018595)

6928 *M. Giuliani, Y. Li, A. Castelletti, and C. Gandolfi*
A coupled human-natural systems analysis of irrigated agriculture under changing climate (doi 10.1002/2016WR019363)

6948 *Youzuo Lin, Daniel O'Malley, and Velimir V. Vesselinov*
A computationally efficient parallel Levenberg-Marquardt algorithm for highly parameterized inverse model analyses (doi 10.1002/2016WR019028)

6978 *O. D. L. Strack, L. Stoeckl, K. Damm, G. Houben, B. K. Ausk, and W. J. de Lange*
Reduction of saltwater intrusion by modifying hydraulic conductivity (doi 10.1002/2016WR019037)

6989 *Chunhui Lu, Pei Xin, Jun Kong, Ling Li, and Jian Luo*
Analytical solutions of seawater intrusion in sloping confined and unconfined coastal aquifers (doi 10.1002/2016WR019101)

7005 *Clara Orrú, Astrid Blom, Victor Chavarrías, Velia Ferrara, and Guglielmo Stecca*
A new technique for measuring the bed surface texture during flow and application to a degradational sand-gravel laboratory experiment (doi 10.1002/2016WR018938)

7023 *Mouadh Addassi, Lynn Schreyer, Björn Johannesson, and Hai Lin*
Pore-scale modeling of vapor transport in partially saturated capillary tube with variable area using chemical potential (doi 10.1002/2016WR019165)

7036 *M. S. Bartlett, A. J. Parolari, J. J. McDonnell, and A. Porporato*
Framework for event-based semidistributed modeling that unifies the SCS-CN method, VIC, PDM, and TOPMODEL (doi 10.1002/2016WR019084)

7053 *Amin Elshorbagy, Thorsten Wagener, Saman Razavi, and David Sauchyn*
Correlation and causation in tree-ring-based reconstruction of paleohydrology in cold semiarid regions (doi 10.1002/2016WR018985)

MAJETEK
ÚSTŘEDNÍ KNIHOVNY ČVUT

7070 *Omar Alminagorta, David E. Rosenberg, and Karin M. Kettenring*
Systems modeling to improve the hydro-ecological performance of diked wetlands (doi 10.1002/2015WR018105)

7086 *M. Hofstätter, B. Chimani, A. Lexer, and G. Blöschl*
A new classification scheme of European cyclone tracks with relevance to precipitation (doi 10.1002/2016WR019146)

7105 *Minseok Kim, Luke A. Pangle, Charléne Cardoso, Marco Lora, Till H. M. Volkmann, Yadi Wang, Ciaran J. Harman, and Peter A. Troch*
Transit time distributions and StorAge Selection functions in a sloping soil lysimeter with time-varying flow paths: Direct observation of internal and external transport variability (doi 10.1002/2016WR018620)

7130 *C. J. Harman, A. S. Ward, and A. Ball*
How does reach-scale stream-hyporheic transport vary with discharge? Insights from rSAS analysis of sequential tracer injections in a headwater mountain stream (doi 10.1002/2016WR018832)

7151 *Ido Sirota, Ali Arnon, and Nadav G. Lensky*
Seasonal variations of halite saturation in the Dead Sea (doi 10.1002/2016WR018974)

7163 *Sha Zhou, Bofu Yu, Lu Zhang, Yuefei Huang, Ming Pan, and Guangqian Wang*
A new method to partition climate and catchment effect on the mean annual runoff based on the Budyko complementary relationship (doi 10.1002/2016WR019046)

7178 *María Pool, Marco Dentz, and Vincent E. A. Post*
Transient forcing effects on mixing of two fluids for a stable stratification (doi 10.1002/2016WR019181)

7198 *J. P. Pereira Nunes, B. Bijeljic, and M. J. Blunt*
Pore-space structure and average dissolution rates: A simulation study (doi 10.1002/2016WR019313)

7213 *Randal D. Koster, Luca Brocca, Wade T. Crow, Mariko S. Burgin, and Gabrielle J. M. De Lannoy*
Precipitation estimation using L-band and C-band soil moisture retrievals (doi 10.1002/2016WR019024)

7226 *Hitoshi Miyamoto and Ryo Kimura*
Tree population dynamics on a floodplain: A tradeoff between tree mortality and seedling recruitment induced by stochastic floods (doi 10.1002/2015WR018528)

7244 *Jeffrey Kennedy, Ty P. A. Ferré, and Benjamin Creutzfeldt*
Time-lapse gravity data for monitoring and modeling artificial recharge through a thick unsaturated zone (doi 10.1002/2016WR018770)

7262 *Thomas Hermans, Erasmus Oware, and Jef Caers*
Direct prediction of spatially and temporally varying physical properties from time-lapse electrical resistance data (doi 10.1002/2016WR019126)

7284 *Hasan A. Nooruddin and Martin J. Blunt*
Analytical and numerical investigations of spontaneous imbibition in porous media (doi 10.1002/2015WR018451)

7311 *Trent W. Biggs, Michael Marshall, and Alex Messina*
Mapping daily and seasonal evapotranspiration from irrigated crops using global climate grids and satellite imagery: Automation and methods comparison (doi 10.1002/2016WR019107)

7327 *Harrison B. Zeff, Jonathan D. Herman, Patrick M. Reed, and Gregory W. Characklis*
Cooperative drought adaptation: Integrating infrastructure development, conservation, and water transfers into adaptive policy pathways (doi 10.1002/2016WR018771)

7347 *Hassan Rouhani and Robert Leconte*
A novel method to estimate the maximization ratio of the Probable Maximum Precipitation (PMP) using regional climate model output (doi 10.1002/2016WR018603)

7366 *Zhenyang Peng, Fuqiang Tian, Jingwei Wu, Jiesheng Huang, Hongchang Hu, and Christophe J. G. Darnault*
A numerical model for water and heat transport in freezing soils with nonequilibrium ice-water interfaces* (doi 10.1002/2016WR019116)

*This article is part of a Special Section—The Arctic: An AGU Joint Special Collection

7382 *Marwan Fahs, Behzad Ataie-Ashtiani, Anis Younes, Craig T. Simmons, and Philippe Ackerer*
The Henry problem: New semianalytical solution for velocity-dependent dispersion (doi 10.1002/2016WR019288)

7408 *Maura C. Allaire*
Disaster loss and social media: Can online information increase flood resilience? (doi 10.1002/2016WR019243)

7424 *V. Mansanarez, J. Le Coz, B. Renard, M. Lang, G. Pierrefeu, and P. Vauchel*
Bayesian analysis of stage-fall-discharge rating curves and their uncertainties (doi 10.1002/2016WR018916)

7444 *Allen G. Hunt and Behzad Ghanbarian*
Percolation theory for solute transport in porous media: Geochemistry, geomorphology, and carbon cycling* (doi 10.1002/2016WR019289)

*This article is part of a Special Section—Modeling highly heterogeneous aquifers: Lessons learned in the last 30 years from the MADE experiments and others

7460 *A. Fox, G. Laube, C. Schmidt, J. H. Fleckenstein, and S. Arnon*
The effect of losing and gaining flow conditions on hyporheic exchange in heterogeneous streambeds (doi 10.1002/2016WR018677)

Technical Reports: Data

7478 *Jessica D. Lundquist, James W. Roche, Harrison Forrester, Courtney Moore, Eric Keenan, Gwyneth Perry, Nicoleta Cristea, Brian Henn, Karl Lapo, Bruce McGurk, Daniel R. Cayan, and Michael D. Dettinger*
Yosemite Hydroclimate Network: Distributed stream and atmospheric data for the Tuolumne River watershed and surroundings (doi 10.1002/2016WR019261)

7490 *David N. Wiese, Felix W. Landerer, and Michael M. Watkins*
Quantifying and reducing leakage errors in the JPL RL05M GRACE mascon solution (doi 10.1002/2016WR019344)

Technical Reports: Methods

7503 *Jianshi Zhao, Dingbao Wang, Hanbo Yang, and Murugesu Sivapalan*
Unifying catchment water balance models for different time scales through the maximum entropy production principle (doi 10.1002/2016WR018977)

7513 *Noah P. Molotch, David M. Barnard, Sean P. Burns, and Thomas H. Painter*
Measuring spatiotemporal variation in snow optical grain size under a subalpine forest canopy using contact spectroscopy (doi 10.1002/2016WR018954)

Comments and Replies

7523 *Patrick Belmont, John R. Stevens, Jonathan A. Czuba, Karthik Kumarasamy, and Sara A. Kelly*
Comment on "Climate and agricultural land use change impacts on streamflow in the upper midwestern United States" by Satish C. Gupta et al. (doi 10.1002/2015WR018476)

7529 *Satish C. Gupta, Andrew C. Kessler, Melinda K. Brown, and William M. Schuh*
Reply to comment by Belmont et al. on "Climate and agricultural land use change impacts on streamflow in the upper midwestern United States" (doi 10.1002/2016WR018926)

7536 *Efi Foufoula-Georgiou, Patrick Belmont, Peter Wilcock, Karen Gran, Jacques C. Finlay, Praveen Kumar, Jonathan A. Czuba, Jon Schwenk, and Zeinab Takbiri*
Comment on "Climate and agricultural land use change impacts on streamflow in the upper midwestern United States" by Satish C. Gupta et al. (doi 10.1002/2015WR018494)

7540 *Satish C. Gupta, Andrew C. Kessler, Melinda K. Brown, and William M. Schuh*
Reply to comment by Foufoula-Georgiou et al. on "Climate and agricultural land use change impacts on streamflow in the upper midwestern United States" (doi 10.1002/2016WR019003)