

Research Articles

- 3225** *K. R. Roche, G. Blois, J. L. Best, K. T. Christensen, A. F. Aubeneau, and A. I. Packman*
Turbulence Links Momentum and Solute Exchange in Coarse-Grained Streambeds
(<https://doi.org/10.1029/2017WR021992>)
- 3243** *J. D. Hyman and J. Jiménez-Martínez*
Dispersion and Mixing in Three-Dimensional Discrete Fracture Networks: Nonlinear Interplay Between Structural and Hydraulic Heterogeneity (<https://doi.org/10.1029/2018WR022585>)
- 3259** *Chengji Shen, Chenming Zhang, Pei Xin, Jun Kong, and Ling Li*
Salt Dynamics in Coastal Marshes: Formation of Hypersaline Zones (<https://doi.org/10.1029/2017WR022021>)
- 3277** *Shuangmei Zou, Ryan T. Armstrong, Ji-Youn Arns, Christoph H. Arns, and Furqan Hussain*
Experimental and Theoretical Evidence for Increased Ganglion Dynamics During Fractional Flow in Mixed-Wet Porous Media (<https://doi.org/10.1029/2017WR022433>)
- 3290** *M. J. Tourian, J. T. Reager, and N. Sneeuw*
The Total Drainable Water Storage of the Amazon River Basin: A First Estimate Using GRACE
(<https://doi.org/10.1029/2017WR021674>)
- 3313** *D. Gaeuman, R. L. Stewart, and S. Pittman*
Toward the Prediction of Bed Load Rating Curve Parameter Values: The Influence of Scale, Particle Size, and Entrainment Threshold (<https://doi.org/10.1002/2017WR021627>)
- 3335** *Eiichi Ishii*
Assessment of Hydraulic Connectivity of Fractures in Mudstones by Single-Borehole Investigations
(<https://doi.org/10.1029/2018WR022556>)
- 3357** *Jun Wang and Yiping Guo*
An Analytical Stochastic Approach for Evaluating the Performance of Combined Sewer Overflow Tanks
(<https://doi.org/10.1029/2017WR022286>)
- 3376** *Amir H. Delgoshai, Patrick Jenny, and Hamdi A. Tchelepi*
Temporal Markov Processes for Transport in Porous Media: Random Lattice Networks
(<https://doi.org/10.1029/2018WR022735>)
- 3392** *Keirnan Fowler, Murray Peel, Andrew Western, and Lu Zhang*
Improved Rainfall-Runoff Calibration for Drying Climate: Choice of Objective Function
(<https://doi.org/10.1029/2017WR022466>)
- 3409** *Kaniska Mallick, Erika Toivonen, Ivonne Trebs, Eva Boegh, James Cleverly, Derek Eamus, Harri Koivusalo, Darren Drewry, Stefan K. Arndt, Anne Griebel, Jason Beringer, and Monica Garcia*
Bridging Thermal Infrared Sensing and Physically-Based Evapotranspiration Modeling: From Theoretical Implementation to Validation Across an Aridity Gradient in Australian Ecosystems*
(<https://doi.org/10.1029/2017WR021357>)
- *This article is part of a Special Section—Hydrology Delivers Earth System Sciences to Society (HESS54): Improving and Integrating Knowledge Across Disciplines on Global Energy, Water and Carbon Cycles
- 3436** *Judith Robinson, Lee Slater, Andreas Weller, Kristina Keating, Tonian Robinson, Carla Rose, and Beth Parker*
On Permeability Prediction From Complex Conductivity Measurements Using Polarization Magnitude and Relaxation Time (<https://doi.org/10.1002/2017WR022034>)
- 3453** *J. Bolson, M. C. Sukop, M. Arabi, G. Pivo, and A. Lanier*
A Stakeholder-Science Based Approach Using the National Urban Water Innovation Network as a Test Bed for Understanding Urban Water Sustainability Challenges in the U.S. (<https://doi.org/10.1029/2017WR021191>)
- 3472** *A. Builes-Jaramillo and G. Poveda*
Conjoint Analysis of Surface and Atmospheric Water Balances in the Andes-Amazon System
(<https://doi.org/10.1029/2017WR021338>)
- 3490** *WuRong Shih and Panayiotis Diplas*
A Unified Approach to Bed Load Transport Description Over a Wide Range of Flow Conditions via the Use of Conditional Data Treatment (<https://doi.org/10.1029/2017WR022373>)

- 3510** *Liqing Peng, Dan Li, and Justin Sheffield*
Drivers of Variability in Atmospheric Evaporative Demand: Multiscale Spectral Analysis Based on Observations and Physically Based Modeling (<https://doi.org/10.1029/2017WR022104>)
- 3530** *Jeongsook Jeon, Ji Yong Lee, and Seokkoo Kang*
Experimental Investigation of Three-Dimensional Flow Structure and Turbulent Flow Mechanisms Around a Nonsubmerged Spur Dike With a Low Length-to-Depth Ratio (<https://doi.org/10.1029/2017WR021582>)
- 3557** *Bryan Riel, Mark Simons, Daniel Ponti, Piyush Agram, and Romain Jolivet*
Quantifying Ground Deformation in the Los Angeles and Santa Ana Coastal Basins Due to Groundwater Withdrawal (<https://doi.org/10.1029/2017WR021978>)
- 3583** *Lian Feng, Chuanmin Hu, and Junsheng Li*
Can MODIS Land Reflectance Products be Used for Estuarine and Inland Waters?
(<https://doi.org/10.1029/2017WR021607>)
- 3602** *M. Arshadi, M. Khishvand, A. Aghaei, M. Piri, and G. A. Al-Muntasheri*
Pore-Scale Experimental Investigation of Two-Phase Flow Through Fractured Porous Media
(<https://doi.org/10.1029/2018WR022540>)
- 3632** *Congsheng Fu, Xuhui Lee, Timothy J. Griffis, John M. Baker, and Peter A. Turner*
A Modeling Study of Direct and Indirect N₂O Emissions From a Representative Catchment in the U.S. Corn Belt
(<https://doi.org/10.1029/2017WR022108>)
- 3654** *Giovanni Moretti and Stefano Orlandini*
Hydrography-Driven Coarsening of Grid Digital Elevation Models (<https://doi.org/10.1029/2017WR021206>)
- 3673** *Wenjuan Zheng, Saiqi Zeng, Harsh Bais, Jacob M. LaManna, Daniel S. Hussey, David L. Jacobson, and Yan Jin*
Plant Growth-Promoting Rhizobacteria (PGPR) Reduce Evaporation and Increase Soil Water Retention
(<https://doi.org/10.1029/2018WR022656>)
- 3688** *Dennis Wagenaar, Stefan Lüdtkke, Kai Schröter, Laurens M. Bouwer, and Heidi Kreibich*
Regional and Temporal Transferability of Multivariable Flood Damage Models
(<https://doi.org/10.1029/2017WR022233>)
- 3704** *Jonghyun Lee, Hojat Ghorbanidehno, Matthew W. Farthing, Tyler J. Hesser, Eric F. Darve, and Peter K. Kitanidis*
Riverine Bathymetry Imaging With Indirect Observations (<https://doi.org/10.1029/2017WR021649>)
- 3728** *Neil Debbage and J. M. Shepherd*
The Influence of Urban Development Patterns on Streamflow Characteristics in the Charlanta Megaregion
(<https://doi.org/10.1029/2017WR021594>)

Technical Reports: Methods

- 3748** *A. E. Lovell, S. Srinivasan, S. Karra, D. O'Malley, N. Makedonska, H. S. Viswanathan, G. Srinivasan, J. W. Carey, and L. P. Frash*
Extracting Hydrocarbon From Shale: An Investigation of the Factors That Influence the Decline and the Tail of the Production Curve (<https://doi.org/10.1029/2017WR022180>)
- 3758** *D. O'Malley, S. Karra, J. D. Hyman, H. S. Viswanathan, and G. Srinivasan*
Efficient Monte Carlo With Graph-Based Subsurface Flow and Transport Models
(<https://doi.org/10.1029/2017WR022073>)