

Commentary

- 9712** *L. Yeghiazarian and V. Nistor*
The HydroGrid as a Framework for Interconnected Water Systems: Emerging Technologies
(<https://doi.org/10.1029/2017WR022499>)

Review Articles

- 9724** *J. Sheffield, E. F. Wood, M. Pan, H. Beck, G. Coccia, A. Serrat-Capdevila, and K. Verbist*
Satellite Remote Sensing for Water Resources Management: Potential for Supporting Sustainable Development in Data-Poor Regions (<https://doi.org/10.1029/2017WR022437>)
- 9759** *Matteo Bernard Bertagni and Carlo Camporeale*
Finite Amplitude of Free Alternate Bars With Suspended Load (<https://doi.org/10.1029/2018WR022819>)

Research Articles

- 9774** *Yonggen Zhang, Marcel G. Schaap, and Yuanyuan Zha*
A High-Resolution Global Map of Soil Hydraulic Properties Produced by a Hierarchical Parameterization of a Physically Based Water Retention Model (<https://doi.org/10.1029/2018WR023539>)
- 9791** *Yahua Wang and Jing Wu*
An Empirical Examination on the Role of Water User Associations for Irrigation Management in Rural China
(<https://doi.org/10.1029/2017WR021837>)
- 9812** *Keirnan Fowler, Gemma Coxon, Jim Freer, Murray Peel, Thorsten Wagener, Andrew Western, Ross Woods, and Lu Zhang*
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(<https://doi.org/10.1029/2018WR023989>)
- 9833** *Luis Cueto-Felgueroso, Cristina Vila, David Santillán, and Juan Carlos Mosquera*
Numerical Modeling of Injection-Induced Earthquakes Using Laboratory-Derived Friction Laws
(<https://doi.org/10.1029/2017WR022363>)
- 9860** *D. Biondi and E. Todini*
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- 9883** *Nitin K. Singh, Ryan E. Emanuel, Fabian Nippgen, Brian L. McGlynn, and Chelcy F. Miniat*
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- 9901** *Takuya Ishibashi, Derek Elsworth, Yi Fang, Jacques Riviere, Benjamin Madara, Hiroshi Asanuma, Noriaki Watanabe, and Chris Marone*
Friction-Stability-Permeability Evolution of a Fracture in Granite (<https://doi.org/10.1029/2018WR022598>)
- 9919** *Wei He, Jian Zhang, Xiaodong Yu, Sheng Chen, and Jian Luo*
Effect of Runoff Variability and Sea Level on Saltwater Intrusion: A Case Study of Nandu River Estuary, China
(<https://doi.org/10.1029/2018WR023285>)
- 9935** *Stephanie K. Kampf, Joshua Faulconer, Jeremy R. Shaw, Michael Lefsky, Joseph W. Wagenbrenner, and David J. Cooper*
Rainfall Thresholds for Flow Generation in Desert Ephemeral Streams
(<https://doi.org/10.1029/2018WR023714>)
- 9951** *J. L. Stein*
An Enhanced Pfafstetter Catchment Reference System
(<https://doi.org/10.1029/2018WR023218>)
- 9964** *Ricardo Medina, Russell L. Detwiler, Romain Prioul, Wenyue Xu, and Jean E. Elkhoury*
Settling and Mobilization of Sand-Fiber Proppants in a Deformable Fracture
(<https://doi.org/10.1029/2018WR023355>)
- 9978** *L. Wang, N. F. Fang, Z. J. Yue, Z. H. Shi, and L. Hua*
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(<https://doi.org/10.1029/2018WR022786>)
- 9996** *Lisa M. Wild, Bernhard Mayer, and Florian Einsiedl*
Decadal Delays in Groundwater Recovery from Nitrate Contamination Caused by Low O₂ Reduction Rates
(<https://doi.org/10.1029/2018WR023396>)
- 10,013** *Xing Zheng, David R. Maidment, David G. Tarboton, Yan Y. Liu, and Paola Passalacqua*
GeoFlood: Large-Scale Flood Inundation Mapping Based on High-Resolution Terrain Analysis
(<https://doi.org/10.1029/2018WR023457>)

- 10,034** *T. Lan, K. R. Lin, Z. Y. Liu, Y. H. He, C. Y. Xu, H. B. Zhang, and X. H. Chen*
A Clustering Preprocessing Framework for the Subannual Calibration of a Hydrological Model Considering Climate-Land Surface Variations (<https://doi.org/10.1029/2018WR023160>)
- 10,053** *J. de La Bernardie, O. Bour, T. Le Borgne, N. Guihéneuf, E. Chatton, T. Labasque, H. Le Lay, and M.-F. Gerard*
Thermal Attenuation and Lag Time in Fractured Rock: Theory and Field Measurements From Joint Heat and Solute Tracer Tests (<https://doi.org/10.1029/2018WR023199>)
- 10,076** *Liwen Wu, Tanu Singh, Jesus Gomez-Velez, Gunnar Nützmann, Anders Wörman, Stefan Krause, and Jörg Lewandowski*
Impact of Dynamically Changing Discharge on Hyporheic Exchange Processes Under Gaining and Losing Groundwater Conditions (<https://doi.org/10.1029/2018WR023185>)
- 10,094** *Qian Shao, Marwan Fahs, Hussein Hoteit, Jesus Carrera, Philippe Ackerer, and Anis Younes*
A 3-D Semianalytical Solution for Density-Driven Flow in Porous Media (<https://doi.org/10.1029/2018WR023583>)
- 10,117** *Songbai Wu, Li Chen, Ninglian Wang, Minghui Yu, and Shmuel Assouline*
Modeling Rainfall-Runoff and Soil Erosion Processes on Hillslopes With Complex Rill Network Planform (<https://doi.org/10.1029/2018WR023837>)
- 10,134** *F. Castellví*
An Advanced Method Based on Surface Renewal Theory to Estimate the Friction Velocity and the Surface Heat Flux into a High-Resolution Hydrological Model: A Synthetic Study (<https://doi.org/10.1029/2018WR022808>)
- 10,155** *Quanrong Wang, Wenguang Shi, Hongbin Zhan, Haochen Gu, and Kewei Chen*
Models of Single-Well Push-Pull Test With Mixing Effect in the Wellbore (<https://doi.org/10.1029/2018WR023317>)
- 10,172** *M. L. Erickson, S. M. Elliott, C. A. Christenson, and A. L. Krall*
Predicting geogenic Arsenic in Drinking Water Wells in Glacial Aquifers, North-Central USA: Accounting for Depth-Dependent Features (<https://doi.org/10.1029/2018WR023106>)
- 10,188** *Saurabh Chawdhary, Dionysios Angelidis, Jonathan Colby, Dean Corren, Lian Shen, and Fotis Sotiropoulos*
Multiresolution Large-Eddy Simulation of an Array of Hydrokinetic Turbines in a Field-Scale River: The Roosevelt Island Tidal Energy Project in New York City (<https://doi.org/10.1029/2018WR023345>)
*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
- 10,205** *L. Archer, J. C. Neal, P. D. Bates, and J. I. House*
Comparing TanDEM-X Data With Frequently Used DEMs for Flood Inundation Modeling (<https://doi.org/10.1029/2018WR023688>)
- 10,223** *A. Tatomir, K. De Vriendt, D. Zhou, H. Gao, F. Duschl, F. Sun, T. Licha, and M. Sauter*
Kinetic Interface Sensitive Tracers: Experimental Validation in a Two-Phase Flow Column Experiment. A Proof of Concept (<https://doi.org/10.1029/2018WR022621>)
- 10,242** *Zhonghao Sun, Junbong Jang, and J. Carlos Santamarina*
Time-Dependent Pore Filling (<https://doi.org/10.1029/2018WR023066>)
- 10,254** *Rasmus Jakobsen, Jolanta Kazmierczak, Helle Ugilt Sør, and Dieke Postma*
Spatial Variability of Groundwater Arsenic Concentration as Controlled by Hydrogeology: Conceptual Analysis Using 2-D Reactive Transport Modeling (<https://doi.org/10.1029/2018WR023685>)
- 10,270** *Luyan Ji, Peng Gong, Jie Wang, Jiancheng Shi, and Zhiliang Zhu*
Construction of the 500-m Resolution Daily Global Surface Water Change Database (2001–2016) (<https://doi.org/10.1029/2018WR023060>)
*This article is part of a Special Section—Big Data & Machine Learning in Water Sciences: Recent Progress and Their Use in Advancing Science
- 10,293** *L. W. de Vos, T. H. Raupach, H. Leijnse, A. Overeem, A. Berne, and R. Uijlenhoet*
High-Resolution Simulation Study Exploring the Potential of Radars, Crowdsourced Personal Weather Stations, and Commercial Microwave Links to Monitor Small-Scale Urban Rainfall (<https://doi.org/10.1029/2018WR023393>)
- 10,313** *Chao Wang, Jesus D. Gomez-Velez, and John L. Wilson*
The Importance of Capturing Topographic Features for Modeling Groundwater Flow and Transport in Mountainous Watersheds (<https://doi.org/10.1029/2018WR023863>)

Technical Reports: Methods

- 10,339** *R. W. Webb, K. S. Jennings, M. Fend, and N. P. Molotch*
Combining Ground-Penetrating Radar With Terrestrial LiDAR Scanning to Estimate the Spatial Distribution of Liquid Water Content in Seasonal Snowpacks (<https://doi.org/10.1029/2018WR022680>)
*This article is part of a Special Section—Advances in Remote Sensing, Measurement, and Simulation of Seasonal Snow

- 10,350** *Valentijn R. N. Pauwels and Remko Uijlenhoet*
Confirmation of a Short-Time Expression for the Hydrograph Rising Limb of an Initially Dry Aquifer Using Laboratory Hillslope Outflow Experiments (<https://doi.org/10.1029/2018WR023580>)
- 10,362** *Anette Eltner, Melanie Elias, Hannes Sardemann, and Diana Spieler*
Automatic Image-Based Water Stage Measurement for Long-Term Observations in Ungauged Catchments (<https://doi.org/10.1029/2018WR023913>)

Technical Reports: Data

- 10,372** *Wondmageyn Yigzaw, Hong-Yi Li, Yonas Demissie, Mohamad I. Hejazi, L. Ruby Leung, Nathalie Voisin, and Rob Payn*
A New Global Storage-Area-Depth Data Set for Modeling Reservoirs in Land Surface and Earth System Models (<https://doi.org/10.1029/2017WR022040>)