

## Commentary

- 7548** *Christopher Hutton, Thorsten Wagener, Jim Freer, Dawei Han, Chris Duffy, and Berit Arheimer*  
Most computational hydrology is not reproducible, so is it really science? (doi 10.1002/2016WR019285)

## Research Articles

- 7556** *Hayley A. Corson-Rikert, Steven M. Wondzell, Roy Haggerty, and Mary V. Santelmann*  
Carbon dynamics in the hyporheic zone of a headwater mountain stream in the Cascade Mountains, Oregon (doi 10.1002/2016WR019303)
- 7577** *Jun Man, Jiangjiang Zhang, Weixuan Li, Lingzao Zeng, and Laosheng Wu*  
Sequential ensemble-based optimal design for parameter estimation (doi 10.1002/2016WR018736)
- 7593** *Mohammad Danesh-Yazdi, Efi Foufoula-Georgiou, Diana L. Karwan, and Gianluca Botter*  
Inferring changes in water cycle dynamics of intensively managed landscapes via the theory of time-variant travel time distributions (doi 10.1002/2016WR019091)
- 7615** *Ayan S. Fleischmann, Rodrigo C. D. Paiva, Walter Collischonn, Mino V. Sorribas, and Paulo R. M. Pontes*  
On river-floodplain interaction and hydrograph skewness (doi 10.1002/2016WR019233)
- 7631** *Yonggen Zhang, Marcel G. Schaap, Alberto Guadagnini, and Shlomo P. Neuman*  
Inverse modeling of unsaturated flow using clusters of soil texture and pedotransfer functions (doi 10.1002/2016WR019016)
- 7645** *Avinoam Rabinovich, Boxiao Li and Louis J. Durlofsky*  
Analytical approximations for effective relative permeability in the capillary limit (doi 10.1002/2016WR019234)
- 7668** *Mahesh Pandit and Krishna P. Paudel*  
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- 7690** *Jianzhi Dong, Susan C. Steele-Dunne, Tyson E. Ochsner, Christine E. Hatch, Chadi Sayde, John Selker, Scott Tyler, Michael H. Cosh, and Nick van de Giesen*  
Mapping high-resolution soil moisture and properties using distributed temperature sensing data and an adaptive particle batch smoother (doi 10.1002/2016WR019031)
- 7711** *M. Taka, J. Aalto, J. Virkanen, and M. Luoto*  
The direct and indirect effects of watershed land use and soil type on stream water metal concentrations (doi 10.1002/2016WR019226)
- 7726** *Stephen A. McCord, Marc W. Beutel, Stephen R. Dent, and S. G. Schladow*  
Evaluation of mercury cycling and hypolimnetic oxygenation in mercury-impacted seasonally stratified reservoirs in the Guadalupe River watershed, California (doi 10.1002/2016WR019061)
- 7744** *Carlos R. Wyss, Dieter Rickenmann, Bruno Fritschi, Jens M. Turowski, Volker Weitbrecht, and Robert M. Boes*  
Laboratory flume experiments with the Swiss plate geophone bed load monitoring system: 1. Impulse counts and particle size identification (doi 10.1002/2015WR018555)
- 7760** *Carlos R. Wyss, Dieter Rickenmann, Bruno Fritschi, Jens M. Turowski, Volker Weitbrecht, Eric Travaglini, Eric Bardou, and Robert M. Boes*  
Laboratory flume experiments with the Swiss plate geophone bed load monitoring system: 2. Application to field sites with direct bed load samples (doi 10.1002/2016WR019283)
- 7779** *O. Rakovec, R. Kumar, S. Attinger, and L. Samaniego*  
Improving the realism of hydrologic model functioning through multivariate parameter estimation (doi 10.1002/2016WR019430)
- 7793** *L. Milanesi, M. Pilotti and B. Bacchi*  
Using web-based observations to identify thresholds of a person's stability in a flow (doi 10.1002/2016WR019182)
- 7806** *Alexander H. McCluskey, Stanley B. Grant, and Michael J. Stewardson*  
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- 7819** *Melissa D. Masbruch, Christine A. Rumsey, Subhrendu Gangopadhyay, David D. Susong, and Tom Pruitt*  
Analyses of infrequent (quasi-decadal) large groundwater recharge events in the northern Great Basin: Their importance for groundwater availability, use, and management (doi 10.1002/2016WR019060)



- 7837** *C. Bracken, B. Rajagopalan and C. Woodhouse*  
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- 7851** *Huangxin Chen, Amgad Salama, and Shuyu Sun*  
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- 7869** *Seokkoo Kang, Craig Hill, and Fotis Sotiropoulos*  
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- 7892** *Dominik Schneider and Noah P. Molotch*  
Real-time estimation of snow water equivalent in the Upper Colorado River Basin using MODIS-based SWE Reconstructions and SNOTEL data (doi 10.1002/2016WR019067)
- 7911** *Ryan D. Stewart, Majdi R. Abou Najm, David E. Rupp, and John S. Selker*  
Modeling multidomain hydraulic properties of shrink-swell soils (doi 10.1002/2016WR019336)
- 7931** *Kyle D. Trostle, J. Ray Runyon, Michael A. Pohlmann, Shelby E. Redfield, Jon Pelletier, Jennifer McIntosh, and Jon Chorover*  
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- \*This article is part of a Special Section—Concentration-discharge relations in the critical zone
- 7945** *Corentin Girard, Jean-Daniel Rinaudo, and Manuel Pulido-Velazquez*  
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- 7963** *Chengzhong Pan, Lan Ma, and John Wainwright*  
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- 7980** *M. Buchholz, G. Holst, and O. Musshoff*  
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- 7999** *Hongkai Gao, Markus Hrachowitz, Nutchant Sriwongsitanon, Fabrizio Fenicia, Shervan Gharari, and Hubert H. G. Savenije*  
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- 8023** *Michael D. Novak*  
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- 8039** *A. Overeem, H. Leijnse, and R. Uijlenhoet*  
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- 8066** *Simonetta Rubol, Ilenia Battiato, and Felipe P. J. de Barros*  
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- 8081** *Milad Hooshyar, Dingbao Wang, Seoyoung Kim, Stephen C. Medeiros, and Scott C. Hagen*  
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- 8103** *M. Schmid and O. Köster*  
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- 8117** *Matthias Loschko, Thomas Wöhling, David L. Rudolph, and Olaf A. Cirpka*  
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- 8138** *C. Gregoretti, M. Degetto, M. Bernard, G. Crucil, A. Pimazzoni, G. De Vido, M. Berti, A. Simoni, and S. Lanzoni*  
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- 8159** *Derek M. Schook, Jonathan M. Friedman and Sara L. Rathburn*  
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- 8174** *Carlos A. Oroza, Zeshi Zheng, Steven D. Glaser, Devis Tuia, and Roger C. Bales*  
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- 8190** *N. C. Finlay, K. Johnson, and F. Worrall*  
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- 8202** *Matthew P. Miller, Elizabeth W. Boyer, Diane M. McKnight, Michael G. Brown, Rachel S. Gabor, Carolyn T. Hunsaker, Lidiia Iavorivska, Shreeram Inamdar, Dale W. Johnson, Louis A. Kaplan, Henry Lin, William H. McDowell, and Julia N. Perdril*  
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- 8217** *Xiaogang He, Nathaniel W. Chaney, Marc Schleiss, and Justin Sheffield*  
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- 8238** *James C. Bennett, Q. J. Wang, Ming Li, David E. Robertson, and Andrew Schepen*  
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- 8260** *Yuting Yang, Randall J. Donohue and Tim R. McVicar*  
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- 8277** *Alberto Garcia-Prats, Antonio D. del Campo, and Manuel Pulido-Velazquez*  
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- 8295** *Markus Wehrer, Andrew Binley and Lee D. Slater*  
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- 8317** *Barbara Glaser, Julian Klaus, Sven Frei, Jay Frentress, Laurent Pfister, and Luisa Hopp*  
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- 8343** *Ciaran Broderick, Tom Matthews, Robert L. Wilby, Satish Bastola, and Conor Murphy*  
Transferability of hydrological models and ensemble averaging methods between contrasting climatic periods (doi 10.1002/2016WR018850)

### **Technical Reports: Methods**

- 8374** *Xiongyu Chen, Amir Kianinejad and David A. DiCarlo*  
An extended JBN method of determining unsteady-state two-phase relative permeability (doi 10.1002/2016WR019204)
- 8384** *Mohammad Mahadi Hasan, Ashish Sharma, Fiona Johnson, Gregoire Mariethoz, and Alan Seed*  
Merging radar and in situ rainfall measurements: An assessment of different combination algorithms (doi 10.1002/2015WR018441)