

Hydrologic Measurement Methods

Introduction

- W00D00** *John Selker and Ty P. A. Ferre*
(page 1) The ah ha moment of measurement: Introduction to the special section on Hydrologic Measurement Methods, *Water Resour. Res.*, 45, doi:10.1029/2009WR007966

Meteorologic, Interception, and Evapotranspiration Measurement

- W00D15** *Friesen, J., C. van Beek, J. Selker, H. H. G. Savenije, and N. van de Giesen*
(3) Tree rainfall interception measured by stem compression, *Water Resour. Res.*, 44, doi:10.1029/2008WR007074
- W00D02** *Heather E. Golden, Elizabeth W. Boyer, Michael G. Brown, Emily M. Elliott, and Don Koo Lee*
(8) Simple approaches for measuring dry atmospheric nitrogen deposition to watersheds, *Water Resour. Res.*, 44, doi:10.1029/2008WR006952
- W00D04** *Jessica D. Lundquist and Brian Huggett*
(16) Evergreen trees as inexpensive radiation shields for temperature sensors, *Water Resour. Res.*, 44, doi:10.1029/2008WR006979
- W00D25** *Jessica Lundquist, Brian Huggett, Heidi Roop, and Natalie Low*
(21) Use of spatially distributed stream stage recorders to augment rain gages by identifying locations of thunderstorm precipitation and distinguishing rain from snow, *Water Resour. Res.*, 45, doi:10.1029/2008WR006995
- W00D35** *T. G. Pypker, H. R. Barnard, M. Hauck, E. W. Sulzman, M. H. Unsworth, A. C. Mix, A. M. Kennedy, and B. J. Bond*
(28) Can carbon isotopes be used to predict watershed-scale transpiration? *Water Resour. Res.*, 45, doi:10.1029/2008WR007050
- W00D38**, *Michele L. Reba, Timothy E. Link, Danny Marks, and John Pomeroy*
(40) An assessment of corrections for eddy covariance measured turbulent fluxes over snow in mountain environments, *Water Resour. Res.*, 45, doi:10.1029/2008WR007045

Snow Measurement

- W00D31** *S. R. Fassnacht, J. D. Stednick, J. S. Deems, and M. V. Corrao*
(55) Metrics for assessing snow surface roughness from digital imagery, *Water Resour. Res.*, 45, doi:10.1029/2008WR006986
- W00D16** *Jessica D. Lundquist and Fred Lott*
(61) Using inexpensive temperature sensors to monitor the duration and heterogeneity of snow-covered areas, *Water Resour. Res.*, 44, doi:10.1029/2008WR007035

Soil and Vadose Zone Measurements

- W00D18** *H. Abdu, D. A. Robinson, M. Seyfried, and S. B. Jones*
(67) Geophysical imaging of watershed subsurface patterns and prediction of soil texture and water holding capacity, *Water Resour. Res.*, 44, doi:10.1029/2008WR007043
- W00D17** *Richard T. Amos and David W. Blowes*
(77) Versatile direct push profiler for the investigation of volatile compounds near the water table, *Water Resour. Res.*, 44, doi:10.1029/2008WR006936
- W00D26** *John H. Bradford, William P. Clement, and Warren Barrash*
(86) Estimating porosity with ground-penetrating radar reflection tomography: A controlled 3-D experiment at the Boise Hydrogeophysical Research Site, *Water Resour. Res.*, 45, doi:10.1029/2008WR006960
- W00D12** *Davide Canone, Stefano Ferraris, Graham Sander, and Randel Haverkamp*
(7) Interpretation of water retention field measurements in relation to hysteresis phenomena, *Water Resour. Res.*, 44, doi:10.1029/2008WR007068
- W00D33** *Louis W. Dekker, Coen J. Ritsema, Klaas Oostindie, Demie Moore, and Jan G. Wesseling*
(111) Methods for determining soil water repellency on field-moist samples, *Water Resour. Res.*, 45, doi:10.1029/2008WR007070
- W00D05** *J. L. Heitman, X. Xiao, R. Horton, and T. J. Sauer*
(117) Sensible heat measurements indicating depth and magnitude of subsurface soil water evaporation, *Water Resour. Res.*, 44, doi:10.1029/2008WR006961
- W00D14** *Tamir Kamai, Atac Tuli, Gerard J. Kluitenberg, and Jan W. Hopmans*
(124) Soil water flux density measurements near 1 cm d⁻¹ using an improved heat pulse probe design, *Water Resour. Res.*, 44, doi:10.1029/2008WR007036
- W00D36** *Coen J. Ritsema, Henk Kuipers, Leon Kleiboer, Erik van den Elsen, Klaas Oostindie, Jan G. Wesseling, Jan-Willem Wolthuis, and Paul Havinga*
(136) A new wireless underground network system for continuous monitoring of soil water contents, *Water Resour. Res.*, 45, doi:10.1029/2008WR007071
- W00D32** *D. A. Robinson, I. Lebron, B. Kocar, K. Phan, M. Sampson, N. Crook, and S. Fendorf*
(145) Time-lapse geophysical imaging of soil moisture dynamics in tropical deltaic soils: An aid to interpreting hydrological and geochemical processes, *Water Resour. Res.*, 45, doi:10.1029/2008WR006984
- W00D08** *Toshihiro Sakaki, Anuchit Limswat, Kathleen M. Smits, and Tissa H. Illangasekare*
(157) Empirical two-point α -mixing model for calibrating the ECH₂O EC-5 soil moisture sensor in sands, *Water Resour. Res.*, 44, doi:10.1029/2008WR006870
- W00D24** *Alexander Scheuermann, Christof Huebner, Stefan Schlaeger, Norman Wagner, Rolf Becker, and Andreas Bieberstein*
(165) Spatial time domain reflectometry and its application for the measurement of water content distributions along flat ribbon cables in a full-scale levee model, *Water Resour. Res.*, 45, doi:10.1029/2008WR007073
- W00D37** *J. S. Selker, J. D. Suter, R. H. Cuenca, B. A. Flugstad, and S. F. Kelly*
(180) Tension infiltrometer enhancements with automated pneumatic control and more durable base plate, *Water Resour. Res.*, 45, doi:10.1029/2008WR007075
- W00D06** *H. Vereecken, J. A. Huisman, H. Bogaen, J. Vanderborght, J. A. Vrugt, and J. W. Hopmans*
(184) On the value of soil moisture measurements in vadose zone hydrology: A review, *Water Resour. Res.*, 44, doi:10.1029/2008WR006829

- W00D39** *Noam Weisbrod, Thomas McGinnis, Mark L. Rockhold, Michael R. Niemet, and John S. Selker*
(205) Effective Darcy-scale contact angles in porous media imbibing solutions of various surface tensions, *Water Resour. Res.*, doi:10.1029/2008WR006957

Surface Water Measurements

- W00D29** *John R. Gray and Jeffrey W. Gartner*
(215) Technological advances in suspended-sediment surrogate monitoring, *Water Resour. Res.*, 45, doi:10.1029/2008WR007063
- W00D09** *J. Le Coz, G. Pierrefeu, and A. Paquier*
(235) Evaluation of river discharges monitored by a fixed side-looking Doppler profiler, *Water Resour. Res.*, 44, doi:10.1029/2008WR006967
- W00D19** *M. Muste, I. Fujita, and A. Hauet*
(248) Large-scale particle image velocimetry for measurements in riverine environments, *Water Resour. Res.*, 44, doi:10.1029/2008WR006950
- W00D20** *Yasuo Nihei and Akira Kimizu*
(262) A new monitoring system for river discharge with horizontal acoustic Doppler current profiler measurements and river flow simulation, *Water Resour. Res.*, 44, doi:10.1029/2008WR006970

Hyporheic and Surface Water/Groundwater Interaction Measurements

- W00D27** *Martin A. Briggs, Michael N. Gooseff, Christopher D. Arp, and Michelle A. Baker*
(277) A method for estimating surface transient storage parameters for streams with concurrent hyporheic storage, *Water Resour. Res.*, 45, doi:10.1029/2008WR006959
- W00D10** *Jim Constantz.*
(290) Heat as a tracer to determine streambed water exchanges, *Water Resour. Res.*, 44, doi:10.1029/2008WR006996
- W00D01** *Roy Haggerty, Alba Argerich, and Eugènia Martí*
(310) Development of a “smart” tracer for the assessment of microbiological activity and sediment-water interaction in natural waters: The resazurin-resorufin system, *Water Resour. Res.*, 44, doi:10.1029/2007WR006670
- W00D07** *Kamini Singha, Adam Pidlisecky, Frederick D. Day-Lewis, and Michael N. Gooseff*
(320) Electrical characterization of non-Fickian transport in groundwater and hyporheic systems, *Water Resour. Res.*, 44, doi:10.1029/2008WR007048

Groundwater Measurements

- W00D13** *N. Crook, A. Binley, R. Knight, D. A. Robinson, J. Zarnetske, and R. Haggerty*
(334) Electrical resistivity imaging of the architecture of substream sediments, *Water Resour. Res.*, 44, doi:10.1029/2008WR006968
- W00D21** *Carter L. Gehman, Dennis L. Harry, William E. Sanford, John D. Stednick, and Nathaniel A. Beckman*
(345) Estimating specific yield and storage change in an unconfined aquifer using temporal gravity surveys, *Water Resour. Res.*, 45, doi:10.1029/2007WR006096

W00D30 *W. Labaky, J. F. Devlin, and R. W. Gillham*

(361) Field comparison of the point velocity probe with other groundwater velocity measurement methods, *Water Resour. Res.*, 45, doi:10.1029/2008WR007066

W00D34 *B. Loose, M. Stute, P. Alexander, and W. M. Smethie*

(370) Design and deployment of a portable membrane equilibrator for sampling aqueous dissolved gases, *Water Resour. Res.*, 45, doi:10.1029/2008WR006969

Networking and Multiple Environment Measurements

W00D22 *Joel Trubilowicz, Kan Cai, and Markus Weiler*

(376) Viability of motes for hydrological measurement, *Water Resour. Res.*, 45, doi:10.1029/2008WR007046

W00D23 *Scott W. Tyler, John S. Selker, Mark B. Hausner, Christine E. Hatch, Thomas Torgersen, Carl E. Thodal, and S. Geoffrey Schladow*

(382) Environmental temperature sensing using Raman spectra DTS fiber-optic methods, *Water Resour. Res.*, 45, doi:10.1029/2008WR007052

Data Processing and Error Detection Methods

W00D28 *David J. Hill, Barbara S. Minsker, and Eyal Amir*

(393) Real-time Bayesian anomaly detection in streaming environmental data, *Water Resour. Res.*, 45, doi:10.1029/2008WR006956

W00D11 *Anurag Nayak, David G. Chandler, Danny Marks, James P. McNamara, and Mark Seyfried*

(409) Correction of electronic record for weighing bucket precipitation gauge measurements, *Water Resour. Res.*, 44, doi:10.1029/2008WR006875