

Geophysics papers (January 2016):

2015

1. Persson, M., T. Dahlin, and T. Günther, Observing solute transport in the capillary fringe using image analysis and electrical resistivity tomography in laboratory experiments, *Vadose Zone Journal*, 14(5), pp. 11, doi:10.2136/vzj2014.07.0085, 2015.

2014

2. Ganz, C., Jörg Bachmann, Ursula Noell, Wilhelmus H.M. Duijnisveld, and Axel Lamparter, Hydraulic modeling and in situ electrical resistivity tomography to analyze ponded infiltration into a water repellent sand, *Vadose Zone Journal*, 13(1), doi:10.2136/vzj2013.04.0074, 14 pp., 2014.
3. Kang, M., E. Perfect, C. L. Cheng, H. Z. Bilheux, J. Lee, J. Horita, and J. M. Warren, Multiple pixel-scale soil water retention curves quantified by neutron radiography, *Advances in Water Resources*, 65, 1-8, 2014.
4. Leger, E., A. Saintenoy, and Y. Coquet, Hydrodynamic parameters of a sandy soil determined by ground penetrating radar inside a single ring infiltrometer, *Water Resour. Res.*, 50, 5459–5474, doi:10.1002/2013WR014226, 2014.
5. Lv, L., T. E. Franz, D. A. Robinson, and S. B. Jones, Measured and modeled soil moisture compared with cosmic-ray neutron probe estimates in a mixed forest, *Vadose Zone Journal*, 13(12), pp. 13, doi:10.2136/vzj2014.06.0077, 2014.
6. Tran, A. P., M. Vanclooster, M. Zupanski, and S. Lambot, Joint estimation of soil moisture profile and hydraulic parameters by ground-penetrating radar data assimilation with maximum likelihood ensemble filter, *Water Resources Research*, 50(4), 3131–3146, doi: 10.1002/2013WR014583, 2014.
7. Villarreyes, C. A. R., G. Baroni, and S. E. Oswald, Inverse modelling of cosmic-ray soil moisture for field-scale soil hydraulic parameters, *European Journal of Soil Science*, 65(6), 876-886, 2014.

2013

8. Boga, H. R., J. A. Huisman, R. Baatz, H.-J. Hendricks Franssen, and H. Vereecken, Accuracy of the cosmic-ray soil water content probe in humid forest ecosystems: The worst case scenario, *Water Resources Research*, 49, 5778–5791, doi:10.1002/wrcr.20463, 2013.
9. Busch, S., L. Weihermüller, J. A. Huisman, C. M. Steelman, A. L. Endres, H. Vereecken, and J. van der Kruk, Coupled hydrogeophysical inversion of time-lapse surface GPR data to estimate hydraulic properties of a layered subsurface, *Water Resources Research*, 49(12), 8480–8494, doi: 10.1002/2013WR013992, 2013.
10. Grunat, D.A., L.D. Slater, and M. Wehrer, Complex electrical measurements on an undisturbed soil core: Evidence for improved estimation of saturation degree from imaginary conductivity, *Vadose Zone Journal*, 12(4), 13 pp., doi:10.2136/vzj2013.03.0059, 2013.
11. Jougnot, D., and N. Linde, Self-potentials in partially saturated media: The importance of explicit modeling of electrode effects, *Vadose Zone Journal*, 12(2), 21 pp., doi:10.2136/vzj2012.0169, 2013.

12. Lehmann, P., F. Gambazzi, B. Suski, L. Baron, A. Askarinejad, S. M. Springman, K. Holliger, and D. Or, Evolution of soil wetting patterns preceding a hydrologically induced landslide inferred from electrical resistivity survey and point measurements of volumetric water content and pore water pressure, *Water Resources Research*, 49(12), 7992–8004, doi: 10.1002/2013WR014560, 2013.
13. Moghadas, D., K. Z. Jadoon, J. Vanderborght, S. Lambot, and H. Vereecken, Effects of near surface soil moisture profiles during evaporation on far-field ground-penetrating radar data: A numerical study, *Vadose Zone Journal*, 12(2), doi:10.2136/vzj2012.0138, 11 pp., 2013.
14. Montzka, C., J. P. Grant, H. Moradkhani, H.-J. H. Franssen, L. Weihermüller, M. Drusch and H. Vereecken, Estimation of radiative transfer parameters from L-band passive microwave brightness temperatures using advanced data assimilation, *Vadose Zone Journal*, 12(3), 17 pp., doi:10.2136/vzj2012.0040, 2013.
15. Scholer, M., J. Irving, M. C. Looms, L. Nielsen, and K. Holliger, Examining the information content of time-lapse crosshole GPR data collected under different infiltration conditions to estimate unsaturated soil hydraulic properties, *Advances in Water Resources*, 54, 38-56, doi:10.1016/j.advwatres.2012.12.011, 2013.

2012

16. Franz, T. E., M. Zreda, T. P. A. Ferre, R. Rosolem, C. Zweck, S. Stillman, X. Zeng, and W. J. Shuttleworth, Measurement depth of the cosmic ray soil moisture probe affected by hydrogen from various sources, *Water Resour. Res.*, 48, W08515, doi: 10.1029/2012WR011871, 2012.
17. Jadoon, K. Z., L. Weihermüller, H. Vereecken, and S. Lambot, Estimation of soil hydraulic parameters by integrated hydrogeophysical inversion of time-lapse GPR data measured at Selhausen, Germany, 14th International Conference on Ground Penetrating Radar (GPR), Shanghai, China, 4-8 June 2012, pp. 701-6, 2012.
18. Jadoon, K. Z., L. Weihermüller, B. Scharnagl, M. B. Kowalsky, M. Bechtold, S. S. Hubbard, H. Vereecken, and S. Lambot, Estimation of soil hydraulic parameters in the field by integrated hydrogeophysical inversion of time-lapse ground-penetrating radar data, *Vadose Zone Journal*, 11(4), doi:10.2136/vzj2011.0177, pp. 17, 2012.
19. Laloy, E., N. Linde, and J. A. Vrugt, Mass conservative three-dimensional water tracer distribution from Markov chain Monte Carlo inversion of time-lapse ground-penetrating radar data, *Water Resources Research*, 48, W07510, doi:10.1029/2011WR011238, 2012.
20. Mboh, C. M., J. A. Huisman, E. Zimmermann, and H. Vereecken, Coupled hydrogeophysical inversion of streaming potential signals for unsaturated soil hydraulic properties, *Vadose Zone Journal*, 11(2), doi:10.2136/vzj2011.0115, 14 pp., 2012.
21. Robinson, D. A., H. Abdu, I. Lebron, and S. B. Jones, Imaging of hill-slope soil moisture wetting patterns in a semi-arid oak savanna catchment using time-lapse electromagnetic induction, *Journal of Hydrology*, 416, 39-49, doi: 10.1016/j.jhydrol.2011.11.034, 2012.
22. Steelman, C. M., A. L. Endres, and J. P. Jones, High-resolution ground-penetrating radar monitoring of soil moisture dynamics: Field results, interpretation, and comparison with unsaturated flow model, *Water Resources Research*, 48, W09538, doi:10.1029/2011WR011414, 2012.

2011

23. Haarder, E. B., M. C. Looms, K. H. Jensen, and L. Nielsen, Visualizing unsaturated flow phenomena using high-resolution reflection ground penetrating radar, *Vadose Zone Journal*, 10(1), 84-97, 2011.

2009

24. Batlle-Aguilar, J., S. Schneider, M. Pessel, P. Tucholka, Y. Coquet, and P. Vachier, Axisymmetrical infiltration in soil imaged by noninvasive electrical resistivity, *Soil Sci. Soc. Am. J.*, 73, 510-520, 2009.
25. Pohlmeier, A., D. van Dusschoten, L. Weihermüller, U. Schurr, and H. Vereecken, Imaging water fluxes in porous media by magnetic resonance imaging using D₂O as a tracer, *Magnetic Resonance Imaging*, 27(2), 285-292, 2009.

2008

26. Saintenoy, A., S. Schneider, and P. Tucholka, Evaluating ground penetrating radar use for water infiltration monitoring, doi:10.2136/vzj2007.0132, *Vadose Zone J.*, 7, 208–214, 2008.
27. Schaap, J. D., P. Lehmann, A. Kaestner, P. Vontobel, R. Hassanein, G. Frei, G.H. de Rooij, E. Lehmann, and H. Flüher, Measuring the effect of structural connectivity on the water dynamics in heterogeneous porous media using speedy neutron tomography, *Advances in Water Resources*, 31(9), 1233-1241, 2008.

2007

28. Saintenoy A., S. Schneider and P. Tucholka, Evaluating Ground-penetrating radar use for water infiltration monitoring, Proceedings of the 4th International Workshop on Advanced Ground Penetrating Radar, Napoli, Italia, June 27-29, 2007.
29. Saintenoy A., S. Schneider et P. Tucholka, Suivi de l'évolution d'un front d'humidification à l'aide de mesures de radar de sol, Actes du 6^{ème} Colloque de Géophysique des Sols et des Formations Superficielles GEOFCAN, Orléans, France, Sept. 25-26, 2007.

2006

30. Blonquist Jr., J. M., S. B. Jones, and D. A. Robinson, Precise irrigation scheduling for turfgrass using a subsurface electromagnetic soil moisture sensor, *Agricultural Water Management*, 84(1-2), 153-165, 2006.

2004

31. Bittelli, M., M. Flury, G. S. Campbell, and V. Schulz, Characterization of a spiral-shaped time domain reflectometry probe, *Water Resour. Res.*, 40, W09205, doi:10.1029/2004WR003027, 2004.
32. Cassiani, G., C. Strobbia, and L. Gallotti, Vertical radar profiles for the characterization of deep vadose zones, *Vadose Zone Journal*, 3(4), 1093-1105, 2004.

2002

33. Blasch, K. W., T. P. A. Ferré, A. H. Christensen, and J. P. Hoffmann, New field method to determine streamflow timing using electrical resistance sensors, *Vadose Zone Journal*, 1(2), 289-299, 2002.

34. Ferré, T. P.A., H. H., Nissen, and J. Šimůnek, The effect of the spatial sensitivity of TDR on inferring soil hydraulic properties from water content measurements made during the advance of a wetting front, *Vadose Zone Journal*, 1, 281-288, 2002.