

Publication list (Peer-reviewed only, Last updated: 09.02.2016)

H-index: 28

Total number of citations: 2463

Number of ISI-listed Publications: 94

- [97] Wiekenkamp, I., J.A. Huisman, H.R. Boga, H.S. Lin, H. Vereecken. 2016. Spatial and temporal occurrence of preferential flow in a forested headwater catchment. *Journal of Hydrology*, 534, 139-149.
- [96] Altdorff, D., M. Bechtold, J. van der Kruk, H. Vereecken, and J. A. Huisman. 2016. Mapping peat layer properties with multi-coil offset electromagnetic induction and laser scanning elevation data. *Geoderma*, 261, 178 - 189.
- [95] Kelter, M., J.A. Huisman, E. Zimmermann, A. Kemna, and H. Vereecken. 2015. Quantitative imaging of spectral electrical properties of variably saturated soil columns. *Journal of Applied Geophysics*, 123, 333-344.
- [94] Simmer, C., I. Thiele-Eich, M. Masbou, W. Amelung, S. Crewell, B. Diekkrüger, F. Ewert, H.-J. Hendricks-Franssen, J.A. Huisman, A. Kemna, N. Klitzsch, S. Kollet, M. Langensiepen, U. Loehnert, M. Rahman, U. Rascher, K. Schneider, J. Schween, Y. Shao, P. Shestha, M. Stiebler, M. Sulis, J. Vanderborght, H. Vereecken, J. van der Kruk, T. Zerenner, and G. Waldhoff. 2015. Monitoring and modelling the terrestrial system from pores to catchments – the transregional collaborative research center on patterns in the soil-vegetation-atmosphere system. *Bulletin of the American Meteorological Society*, 96(10), 1765-1787.
- [93] Boga, H.R., J.A. Huisman, A. Güntner, C. Hübner, J. Küsche, F. Jonard, S. Vey, and H. Vereecken. 2015. Emerging methods for non-invasive sensing of soil moisture dynamics from field to catchment scale: A review. *Wiley Interdisciplinary Reviews: Water*, 2(6), 635-647.
- [92] Binley, A., S.S. Hubbard, J.A. Huisman, A. Reil, D.A. Robinson, K. Singha, and L.D. Slater. 2015. The emergence of hydrogeophysics for improved understanding of subsurface processes over multiple scales. *Water Resources Research*, 51(6), 3837 - 3866.
- [91] Vereecken, H., J.A. Huisman, H.-J. Hendricks Franssen, N. Bruggemann, H.R. Boga, S. Kollet, M. Javaux, J. van der Kruk, and J. Vanderborght. 2015. Soil hydrology: recent methodological advances, challenges and perspectives. *Water Resources Research*, 51(4), 2616 - 2633.
- [90] Baatz, R., H.R. Boga, H.-J. Hendricks Franssen, J.A. Huisman, C. Montzka, and H. Vereecken. 2015. An empirical vegetation correction for soil water content quantification using cosmic-ray probes. *Water Resources Research*, 51(4), 2030 - 2046.
- [89] Weller, A., L. Slater, J.A. Huisman, O. Esser, F.H. Haegel. 2015. On the specific polarizability of sands and sand-clay mixtures. *Geophysics*, 80(3), A57-A6.
- [88] Qu, W., H.R. Boga, J.A. Huisman, J. Vanderborght, M. Schuh, E. Priesack and H. Vereecken. 2015. Predicting sub-grid variability of soil water content from basic soil information. *Geophysical Research Letters*, 42, 789–796.
- [87] Boga, H.R., R. Bol, N. Borchard, N. Bruggemann, B. Diekkrüger, C. Drüe, J. Groh, N. Gottselig, J.A. Huisman, A. Lücke, A. Missong, B. Neuwirth, T. Pütz, M. Schmidt, M. Stockinger, W. Tappe, L. Weihermüller, I. Wiekenkamp and H. Vereecken. 2015. Integrated investigation of the effects of deforestation on water, energy, and matter fluxes using a terrestrial observatory approach. *Science China: Earth Science*, 58(1), 61-75.
- [86] Zhao, Y., E. Zimmermann, J.A. Huisman, A. Treichel, B. Wolters, S. van Waasen, and A. Kemna. 2015. Phase corrections of electromagnetic coupling effects in cross-

- borehole EIT measurements. *Measurement Science and Technology*, 26(1), 15801, doi:10.1088/0957-0233/26/1/015801.
- [85] Qu, W., H.R. Bogaen, J.A. Huisman, G. Martinez, Y.A. Pachepsky, and H. Vereecken. 2014. Effects of soil hydraulic properties on the spatial variability of soil water content: evidence from sensor network data and inverse modeling. *Vadose Zone Journal*, 13(12), doi:10.2136/vzj2014.07.0099.
- [84] Laloy, E., J.A. Huisman, and D. Jacques. 2014. High-resolution moisture profiles from full-waveform probabilistic inversion of TDR signals. *Journal of Hydrology*, 519, 2121-2135.
- [83] Baatz, R., H.R. Bogaen, H.-J. Hendricks Franssen, J.A. Huisman, W. Qu, C. Montzka, and H. Vereecken. 2014. Calibration of a catchment scale cosmic-ray probe network: A comparison of three parameterization methods. *Journal of Hydrology*, 516, 231-244.
- [82] Vereecken, H., J.A. Huisman, Y. Pachepsky, C. Montzka, J. van der Kruk, H.R. Bogaen, L. Weihermüller, M. Herbst, G. Martinez, and J. Vanderborght. 2014. On the spatio-temporal dynamics of soil moisture at the field scale. *Journal of Hydrology*, 516, 76-96.
- [81] von Hebel, C., S. Rudolph, A. Mester, J.A. Huisman, P. Kumbhar, H. Vereecken, and J. van der Kruk. 2014. Three-dimensional imaging of subsurface structural patterns using quantitative large-scale multi-configuration electromagnetic induction data. *Water Resources Research*, 50(3), 2732–2748.
- [80] Busch, S., L. Weihermüller, J.A. Huisman, C.M. Steelman, A.L. Endres, H. Vereecken, and J. van der Kruk. 2013. Coupled hydrogeophysical inversion of time-lapse surface GPR data to estimate hydraulic properties of a layered subsurface. *Water Resources Research*, 49(12), 8480-8494.
- [79] Bogaen, H.R., J.A. Huisman, R. Baatz, H.J. Hendricks-Franssen, and H. Vereecken. 2013. Accuracy of the cosmic-ray soil water content probe in humid forested ecosystems: The worst case scenario. *Water Resources Research*, 49(9), 5778-5791.
- [78] Zhao, Y., E. Zimmermann, J.A. Huisman, A. Treichel, B. Wolters, S. van Waassen, and A. Kemna. 2013. Broadband EIT borehole measurements with high phase accuracy using numerical corrections of electromagnetic coupling effects. *Measurement Science and Technology*, 24, 085005.
- [77] Weihermüller, L., J.A. Huisman, N. Hermes, S. Pickel, and H. Vereecken. 2013. A new TDR multiplexing system for reliable electrical conductivity and soil water content measurements. *Vadose Zone Journal*, 12(1), doi:10.2136/vzj2012.0194.
- [76] Qu, W., H.R. Bogaen, J.A. Huisman and H. Vereecken. 2013. Calibration of a novel low-cost time domain transmission soil water content sensor. *Vadose Zone Journal*, 12(1), doi:10.2136/vzj2012.0139.
- [75] Hunt, A.G., J.A. Huisman, and H. Vereecken. 2012. On the origin of slow processes of charge transport in porous media. *Philosophical Magazine*, 92(36), 4628-4648.
- [74] Huisman, J.A., J.A. Vrugt and T.P.A. Ferre. 2012. Vadose zone model-data fusion: state of the art and future challenges. *Vadose Zone Journal*, 11(4), doi:10.2136/vzj2012.0140.
- [73] Breede, K., A. Kemna, O. Esser, E. Zimmermann, H. Vereecken and J.A. Huisman. 2012. Spectral induced polarization measurements on variable saturated sand-clay mixtures. *Near Surface Geophysics*, 10(6), 479-489.
- [72] Bikowski, J., J.A. Huisman, J.A. Vrugt, H. Vereecken, and J. van der Kruk. 2012. Integrated analysis of waveguide dispersed GPR pulses using deterministic and Bayesian inversion methods. *Near Surface Geophysics*, 10(6), 641-652.
- [71] Rosenbaum, U., H.R. Bogaen, M. Herbst, J.A. Huisman, T.J. Peterson, A.W. Western, and H. Vereecken. 2012. Seasonal and event dynamics of spatial soil moisture patterns at the small catchment scale. *Water Resources Research*, 48, W10544, doi:10.1029/2011WR011518.

- [70] Mboh, C.M., J.A. Huisman, N. Van Gaalen, J. Rings, J. Sorg, and H. Vereecken. 2012. Coupled hydrogeophysical inversion of electrical resistances and inflow measurements for topsoil hydraulic properties under constant head infiltration. *Near Surface Geophysics*, 10(5), 413-426.
- [69] Erdal, D., I. Neuweiler, and J.A. Huisman. 2012. Estimating effective model parameters for heterogeneous unsaturated flow using error models for bias correction, 48, W06530, doi:10.1029/2011WR011062.
- [68] Mboh, C.M., J.A. Huisman, E. Zimmermann, and H. Vereecken. 2012. Coupled hydrogeophysical inversion of streaming potential signals for unsaturated soil hydraulic properties. *Vadose Zone Journal*, 11(2), doi:10.2136/vzj2011.0115.
- [67] Rings, J., J.A. Vrugt, G. Schoups, J.A. Huisman and H. Vereecken. 2012. Ensemble Bayesian model averaging using particle filtering and Gaussian mixture distributions. *Water Resources Research*, 48, W05520, doi:10.1029/2011WR011607.
- [66] Graf, A., M. Herbst, L. Weihermüller, J.A. Huisman, N. Prolingheuer, L. Bornemann and H. Vereecken. 2012. Analyzing spatiotemporal variability of heterotrophic soil respiration at the field scale using orthogonal functions. *Geoderma*, 181-182, 91-101.
- [65] Bauer, J., L. Weihermüller, J.A. Huisman, M. Herbst, A. Graf, J.M. Sequaris and H. Vereecken. 2012. Inverse determination of heterotrophic soil respiration response to temperature and water content under field conditions. *Biogeochemistry*, 108, 119-134.
- [64] Schwartz, N., J.A. Huisman and A. Furman. 2012. The effect of NAPL on the electrical properties of unsaturated porous media. *Geophysical Journal International*, 188, 1007-1011.
- [63] Breede, K., A. Kemna, O. Esser, E. Zimmermann, H. Vereecken and J.A. Huisman. 2011. Joint measurement setup for determining spectral induced polarization and soil hydraulic properties. *Vadose Zone Journal*, 10, 716-726.
- [62] Rosenbaum, U., J.A. Huisman, J. Vrba, H. Vereecken and H.R. Bogaen. 2011. Correction of temperature and electrical conductivity effects on dielectric permittivity measurements with ECH2O sensors. *Vadose Zone Journal*, 10, 582-593.
- [61] Mboh, C.M., J.A. Huisman and H. Vereecken. 2011. Feasibility of sequential and coupled inversion of TDR data to infer soil hydraulic parameters under falling head infiltration. *Soil Science Society of America Journal*, 75(3), 775-786.
- [60] Haegel, F.H., E. Zimmermann, O. Esser, K. Breede, J.A. Huisman, W. Glaas, J. Berwix and H. Vereecken. 2011. Determination of the distribution of air and water in porous media by electrical impedance tomography and magneto-electrical imaging. *Nuclear Engineering and Design*, 241, 1959-1969.
- [59] Graf, A., L. Weihermüller, J.A. Huisman, M. Herbst and H. Vereecken. 2011. Comment on "Global convergence in the temperature sensitivity of respiration at ecosystem level". *Science*, 331, 1265.
- [58] Weihermüller, L., J.A. Huisman, A. Graf, M. Herbst, and H. Vereecken. 2011. Errors in modelling carbon turnover induced by temporal temperature aggregation. *Vadose Zone Journal*, 10, 195-205.
- [57] Graf, A., N. Prolingheuer, A. Schickling, M. Schmidt, D. Schüttemeyer, M. Herbst, J.A. Huisman, L. Weihermüller, B. Scharnagl, C. Steenpass, R. Harms and H. Vereecken. 2011. Temporal downscaling of soil CO₂ efflux measurements based on time-stable spatial patterns. *Vadose Zone Journal*, 10, 239-251.
- [56] Herbst, M., N. Prolingheuer, A. Graf, J.A. Huisman, L. Weihermüller, J. Vanderborght and H. Vereecken. 2010. Multivariate conditional stochastic simulation of soil heterotrophic respiration at plot scale. *Geoderma*, 160, 74-82.
- [55] Minet, J., S. Lambot, G. Delaide, J.A. Huisman, H. Vereecken, and M. Vanclooster. 2010. A generalized frequency domain reflectometry modeling technique for soil electrical properties determination. *Vadose Zone Journal*, 9, 1063-1072.

- [54] Bogena, H.R., M. Herbst, J.A. Huisman, U. Rosenbaum, A. Weuthen and H. Vereecken. 2010. Potential of wireless sensor networks for measuring soil water content variability. *Vadose Zone Journal*, 9, 1002-1013.
- [53] Lavoué, F., J. van der Kruk, J. Rings, F. André, D. Moghadas, J.A. Huisman, S. Lambot, L. Weihermuller, and H. Vereecken. 2010. Electromagnetic induction calibration using apparent electrical conductivity modelling based on electrical resistivity tomography. *Near Surface Geophysics*, 8(6), 553-561.
- [52] Hinnell, A. C., T. P. A. Ferré, J. A. Vrugt, J. A. Huisman, S. Moysey, J. Rings, and M. B. Kowalsky. 2010. Improved extraction of hydrologic information from geophysical data through coupled hydrogeophysical inversion, *Water Resources Research*, 46, W00D40.
- [51] Bechtold, M., J.A. Huisman, L. Weihermüller and H. Vereecken. 2010. Erroneous waveform averaging of TDR100 can cause errors in the determination of the bulk electrical conductivity. *Soil Science Society of America Journal*, 74(2), 495-501.
- [50] Rings, J., J.A. Huisman and H. Vereecken. 2010. Coupled hydrogeophysical parameter estimation using a sequential Bayesian approach. *Hydrology and Earth System Sciences*, 14, 545–556.
- [49] Huisman, J.A., J. Rings, J.A. Vrugt, J. Sorg and H. Vereecken. 2010. Hydraulic properties of a model dike from coupled Bayesian and multi-criteria hydrogeophysical inversion. *Journal of Hydrology*, 380, 62-73.
- [48] Müller, K., J. Vanderborght, A. Englert, A. Kemna, J. Rings, J.A. Huisman and H. Vereecken. 2010. Imaging and characterization of solute transport during two tracer tests in a shallow aquifer using electrical resistivity tomography and multilevel groundwater samplers. *Water Resources Research*, 46, W03502.
- [47] Rosenbaum, U., J.A. Huisman, A. Weuthen, H. Vereecken, and H.R. Bogena. 2010. Sensor-to-sensor variability of ECH2O EC-5, TE and 5TE sensors in dielectric liquids. *Vadose Zone Journal*, 9(1), 181-186.
- [46] Bogena, H.R., J.A. Huisman, H. Meier, U. Rosenbaum and A. Weuthen. 2009. Hybrid wireless underground sensor networks - Quantification of signal attenuation in soil. *Vadose Zone Journal*, 8(3), 755-761.
- [45] Herbst, M., N. Prolingheuer, A. Graf, J.A. Huisman, L. Weihermüller and J. Vanderborght. 2009. Characterisation and understanding of bare soil respiration spatial variability at plot scale. *Vadose Zone Journal*, 8(3), 762-771.
- [44] Weihermüller, L., J.A. Huisman, A. Graf, M. Herbst and J.-M. Sequaris. 2009. Multistep outflow experiments for the simultaneous determination of soil physical and CO₂ production parameters. *Vadose Zone Journal*, 8(3), 772-782.
- [43] Winchen, T., A. Kemna, H. Vereecken and J.A. Huisman. 2009. Characterization of bimodal facies distributions using effective anisotropic complex resistivity: A 2D numerical study based on Cole-Cole models. *Geophysics*, 74(3), A19-A22.
- [42] Breuer, L. and J.A. Huisman. 2009. Assessing the impact of land use change on hydrology by ensemble modeling (LUCHEM). *Advances in Water Resources*, 32(2), 127-128.
- [41] Breuer, L., J.A. Huisman, P. Willems, H. Bormann, A. Bronstert, B.F.W. Croke, H-G. Frede, T. Gräff, L. Hubrechts, A.J. Jakeman, G. Kite, J. Lanini, G. Leavesley, D.P. Lettenmaier, G. Lindström, J. Seibert, M. Sivapalan and N.R. Viney. 2009. Assessing the impact of land use change on hydrology by ensemble modeling (LUCHEM) I: model intercomparison of current land use. *Advances in Water Resources*, 32(2), 129-146.
- [40] Viney, N.R., H. Bormann, L. Breuer, A. Bronstert, B.F.W. Croke, H-G. Frede, T. Gräff, L. Hubrechts, A.J. Jakeman, J.A. Huisman, G. Kite, J. Lanini, G. Leavesley, D.P. Lettenmaier, G. Lindström, J. Seibert, M. Sivapalan and P. Willems. 2009. Assessing the impact of land use change on hydrology by ensemble modeling (LUCHEM) II:

- Ensemble combinations and predictions. *Advances in Water Resources*, 32(2), 147-158.
- [39] Huisman, J.A., L. Breuer, H. Bormann, A. Bronstert, B.F.W. Croke, H-G. Frede, T. Gräff, L. Hubrechts, A.J. Jakeman, G. Kite, J. Lanini, G. Leavesley, D.P. Lettenmaier, G. Lindström, J. Seibert, M. Sivapalan, N.R. Viney and P. Willems. 2009. Assessing the impact of land use change on hydrology by ensemble modelling (LUCHEM) III: scenario analysis. *Advances in Water Resources* 32(2), 159-170.
- [38] Bormann, H., L. Breuer, T. Gräff, J.A. Huisman and B.F.W. Croke. 2009. Assessing the impact of land use change on hydrology by ensemble modelling (LUCHEM) IV: Model sensitivity on data aggregation and spatial (re-)distribution. *Advances in Water Resources*, 32(2), 171-192.
- [37] Vereecken, H., T. Kamai, T. Harter, R. Kasteel, J.W. Hopmans, J.A. Huisman, and J. Vanderborght. 2008. Comments on “Field observations of soil moisture variability across scales”. *Water Resources Research*, 44, W12601.
- [36] Bauer, J., M.U.F. Kirschbaum, L. Weihermüller, J.A. Huisman, M. Herbst and H. Vereecken. 2008. Temperature response of wheat decomposition is more complex than the common approaches of most multi-pool models. *Soil Biology and Biochemistry*, 40(11), 2780-2786.
- [35] Bauer, J., M. Herbst, J.A. Huisman, L. Weihermüller and H. Vereecken. 2008. Sensitivity of simulated soil heterotrophic respiration to varying temperature and moisture reduction functions. *Geoderma*, 145(1-2), 17-27.
- [34] Fröhlich, H.L., L. Breuer, H-G. Frede, J.A. Huisman and K.B. Vache. 2008. Water source characterization through spatiotemporal patterns of major, minor and trace element stream concentrations in a complex, mesoscale German catchment. *Hydrological Processes*, 22(12), 2028-2043.
- [33] Graf, A., L. Weihermüller, J.A. Huisman, M. Herbst and H. Vereecken. 2008. Measurement depth effects on the apparent temperature sensitivity of soil respiration. *Biogeosciences*, 5, 1175–1188.
- [32] Herbst, M., H.J. Hellebrand, J. Bauer, J.A. Huisman, J. Simunek, L. Weihermüller, A. Graf, J. Vanderborght and H. Vereecken. 2008. Multiyear heterotrophic soil respiration – evaluation of a coupled CO₂ transport and carbon turnover model. *Ecological Modelling*, 214(2-4), 271-283.
- [31] Huisman, J.A., C.P. Lin, L. Weihermüller and H. Vereecken. 2008. Accuracy of bulk electrical conductivity measurements with Time Domain Reflectometry. *Vadose Zone Journal*, 7(2), 426-433.
- [30] Lin, C.P., C.C. Chung, J.A. Huisman and S.H. Tang. 2008. Clarification and calibration of reflection coefficient for TDR electrical conductivity measurement. *Soil Science Society of America Journal*, 72(4), 1033-1040.
- [29] Schneider, K., J.A. Huisman, L. Breuer and H-G. Frede. 2008. Ambiguous effects of grazing intensity on surface soil moisture – a geostatistical case study from a steppe environment in Inner Mongolia, PR China. *Journal of Arid Environments*, 72(7), 1305-1319.
- [28] Schneider, K., J.A. Huisman, L. Breuer, Y. Zhao and H-G. Frede. 2008. Temporal stability of soil moisture in various semi-arid steppe ecosystems and its application in remote sensing. *Journal of Hydrology*, 359(1-2), 16-29.
- [27] Vereecken, H., J.A. Huisman, H. Bogaen, J. Vanderborght, J.A. Vrugt and J.W. Hopmans. 2008. On the value of soil moisture measurements in vadose zone hydrology: a review. *Water Resources Research*, 44, W00D06.
- [26] Zimmermann, E., A. Kemna, J. Berwix, W. Glaas, H.M. Münch and J.A. Huisman. 2008. High accuracy impedance spectrometer for measuring sediments with low polarizability. *Measurement Science and Technology*, 19(10), 105603.

- [25] Bogaen, H., J.A. Huisman, C. Oberdoerster and H. Vereecken. 2007. Evaluation of a low-cost soil water content sensor for wireless network applications. *Journal of Hydrology*, 344, 32-42.
- [24] Bormann, H., L. Breuer, T. Gräff and J.A. Huisman. 2007. Analysing the effects of soil properties changes associated with land use changes on the simulated water balance: A comparison of three hydrological catchment models for scenario analysis. *Ecological Modelling*, 209, 29-40.
- [23] Pohlert, T., L. Breuer, J.A. Huisman and H-G. Frede. 2007. Assessing the model performance of an integrated hydrological and biogeochemical model for discharge and nitrate load predictions. *Hydrology and Earth System Sciences*, 11(2), 997-1011.
- [22] Pohlert, T., J.A. Huisman, L. Breuer and H-G. Frede. 2007. Integration of a detailed biogeochemical model into SWAT for improved nitrogen predictions – model development, sensitivity and uncertainty analysis. *Ecological Modelling*, 203(3-4), 215-228.
- [21] Weihermüller, L., J.A. Huisman, S. Lambot, M. Herbst and H. Vereecken. 2007. Mapping the spatial variation of soil water content with different ground penetrating radar techniques. *Journal of Hydrology*, 340(3-4), 205-216.
- [20] Bach, M., L. Breuer, H.-G. Frede, E. Hietel, J.A. Huisman, A. Otte and R. Waldhardt. 2006. Accuracy and congruency of three different digital land use maps. *Landscape and Urban Planning*, 78, 289-299.
- [19] Breuer, L., J.A. Huisman and H-G. Frede. 2006. Monte Carlo assessment of uncertainty in the simulated hydrological response to land use change. *Environmental Modeling and Assessment*, 11 (3), 209-218.
- [18] Breuer, L., J.A. Huisman, T. Keller and H-G. Frede. 2006. Impact of a conversion from cropland to grassland on C and N storage and related soil properties: analysis of a 60-year chronosequence. *Geoderma*, 133, 6-18.
- [17] Huisman, J.A. and H. Vereecken. 2006. Comments on “Time domain reflectometry laboratory calibration in travel time, bulk electrical conductivity, and effective frequency”. *Vadose Zone Journal*, 5(4), 1071-1072.
- [16] Krahe, S., R.A. Düring, J.A. Huisman, A.L. Horn and S. Gäth. 2006. Statistical modeling of the partitioning of nonylphenol in soil. *Water, Air and Soil Pollution*, 172, 221-237.
- [15] Lambot, S., L. Weihermüller, J. A. Huisman, H. Vereecken, M. Vanclooster, and E. C. Slob. 2006. Analysis of air-launched ground-penetrating radar techniques to measure the soil surface water content, *Water Resources Research*, 42, W11403, doi:10.1029/2006WR005097.
- [14] Pohlert, T., J.A. Huisman, L. Breuer and H.-G. Frede. 2005. Modeling of point and non-point source pollution of nitrate with SWAT in the river Dill, Germany. *Advances in Geosciences*, 5, 7-12.
- [13] Heimovaara, T.J., J.A. Huisman, J.A. Vrugt and W. Bouten. 2004. Obtaining the spatial distribution of water content along a TDR probe using the SCEM-UA Bayesian inverse modeling scheme. *Vadose Zone Journal*, 3(4), 1128-1145.
- [12] Huisman, J.A., W. Bouten, J.A. Vrugt and P.A. Ferré. 2004. Accuracy of frequency domain analysis scenarios for the determination of complex dielectric permittivity. *Water Resources Research*, 40(2), DOI: 10.1029/2002WR001601, W02401.1-12.
- [11] Huisman, J.A., L. Breuer and H.-G. Frede. 2004. The sensitivity of simulated hydrological fluxes towards changes in soil properties in response to land use change. *Physics and Chemistry of the Earth*, 29(11-12), doi: 10.1016/j.pce.2004.05.012, 749-758.
- [10] Huisman, J.A., S.S. Hubbard, J.D. Redman and P.A. Annan. 2003. Measuring soil water content with ground penetrating radar: a review. *Vadose Zone Journal*, 2(4), 476-491.

- [9] Huisman, J.A., J.J.J.C. Snepvangers, W. Bouten and G.B.M. Heuvelink. 2003. Monitoring temporal development of spatial soil water content variation: comparison of ground-penetrating radar and time domain reflectometry. *Vadose Zone Journal*, 2(4), 519-529.
- [8] Snepvangers, J.J.J.C., G.B.M. Heuvelink and J.A. Huisman. 2003. Soil water content interpolation using spatio-temporal kriging with external drift. *Geoderma*, 112, 253-271.
- [7] Huisman, J.A., J.J.J.C. Snepvangers, W. Bouten and G.B.M. Heuvelink. 2002. Mapping spatial variation in surface soil water content: comparison of ground-penetrating radar and time domain reflectometry. *Journal of Hydrology*, 269(3-4), 194-207.
- [6] Huisman, J.A., A.H. Weerts, T.J. Heimovaara and W. Bouten. 2002. Comparison of travel time analysis and inverse modeling for soil water content determination with time domain reflectometry. *Water Resources Research*, 38(6), 13.1 - 13.8.
- [5] Van Dam, R.L., W. Schlager, M.J. Dekkers and J.A. Huisman. 2002. Iron oxides as a cause of GPR reflections. *Geophysics*, 67(2), 536-545.
- [4] Huisman, J.A. and W. Bouten. 2003. Accuracy and reproducibility of measuring soil water content with the ground wave of ground-penetrating radar. *Journal of Environmental and Engineering Geophysics*, 8(2), 65-73.
- [3] Huisman, J.A., C. Sperl, W. Bouten and J.M. Verstraten. 2001. Soil water content measurements at different scales: accuracy of time domain reflectometry and ground-penetrating radar, *Journal of Hydrology*, 245(1-4), 48-58.
- [2] Weerts, A.H., J.A. Huisman and W. Bouten. 2001. Information content of time domain reflectometry waveforms. *Water Resources Research*, 37(5), 1291-1299.
- [1] Huisman, J.A., and W. Bouten. 1999. Comparison of calibration and direct measurement of cable and probe properties in time domain reflectometry. *Soil Science Society America Journal*, 63(6), 1615-1617.