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Monitoring Field Tracer Experiment at Field Scale with GPR and TDR

C.Ulbrich, U.Wollschlaeger, K.Roth

Institute of Environmental Physics, University of Heidelberg, Germany (INF 229, 69120 Heidelberg, Germany-Carolin.Ulbrich@iup.uni-heidelberg.de)

We study the feasibility of GPR to monitor solute movement in natural soils at the field scale. A $CaCl_2$ tracer was applied on $10\,m^2$ of a measurement area of $200\,m^2$. The meteorological variables are monitored and the site is instrumented with TDR probes in several depth. Soil water content and electric conductivity are measured every three hours automatically. Weekly GPR-measurements deliver an additional long time series.
The tracer is clearly visible in the TDR- and in the GPR-data. They are analysed and interpreted in terms of an effective medium.