



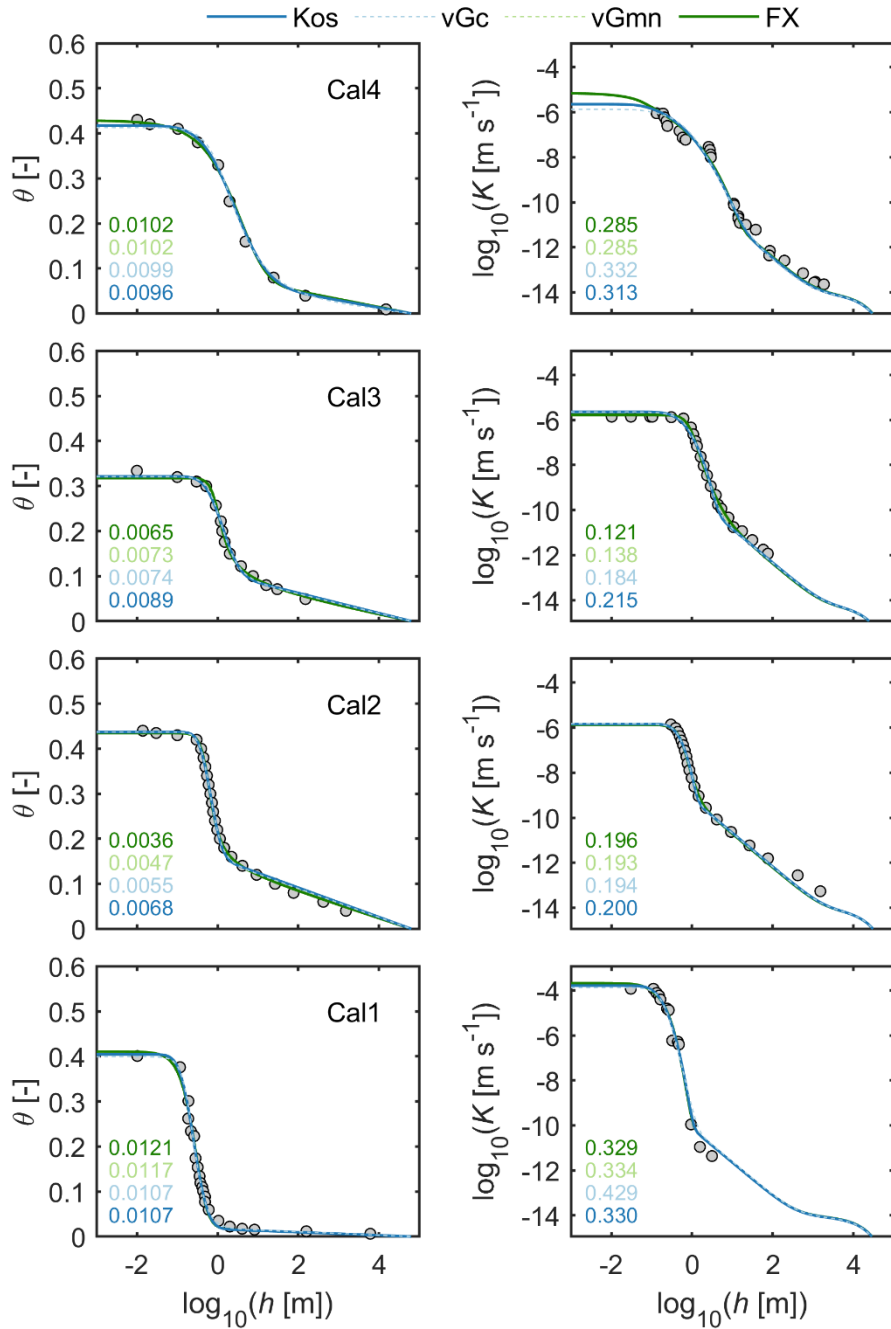
Supplement of

Prediction of the absolute hydraulic conductivity function from soil water retention data

Andre Peters et al.

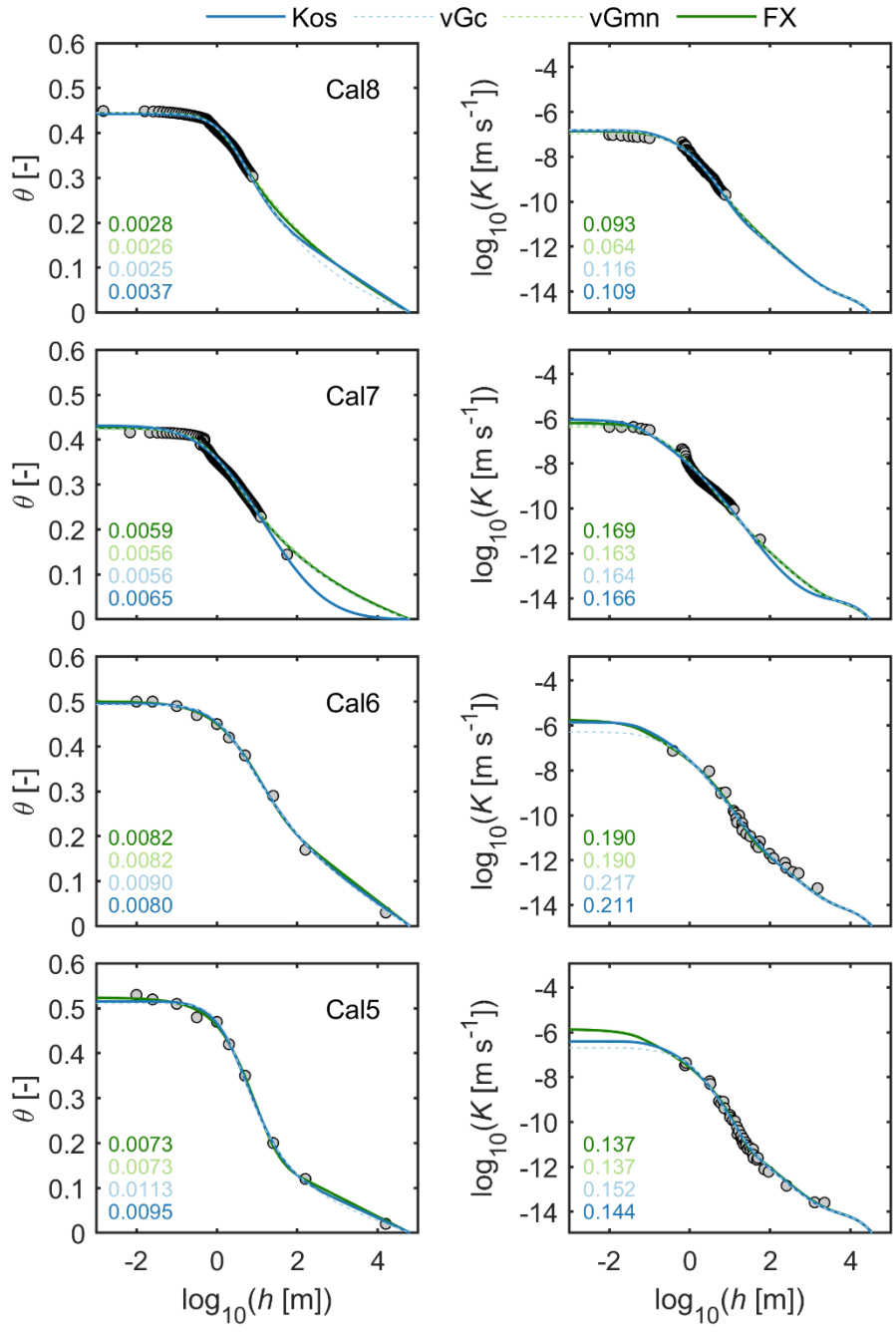
Correspondence to: Andre Peters (a.peters@tu-braunschweig.de)

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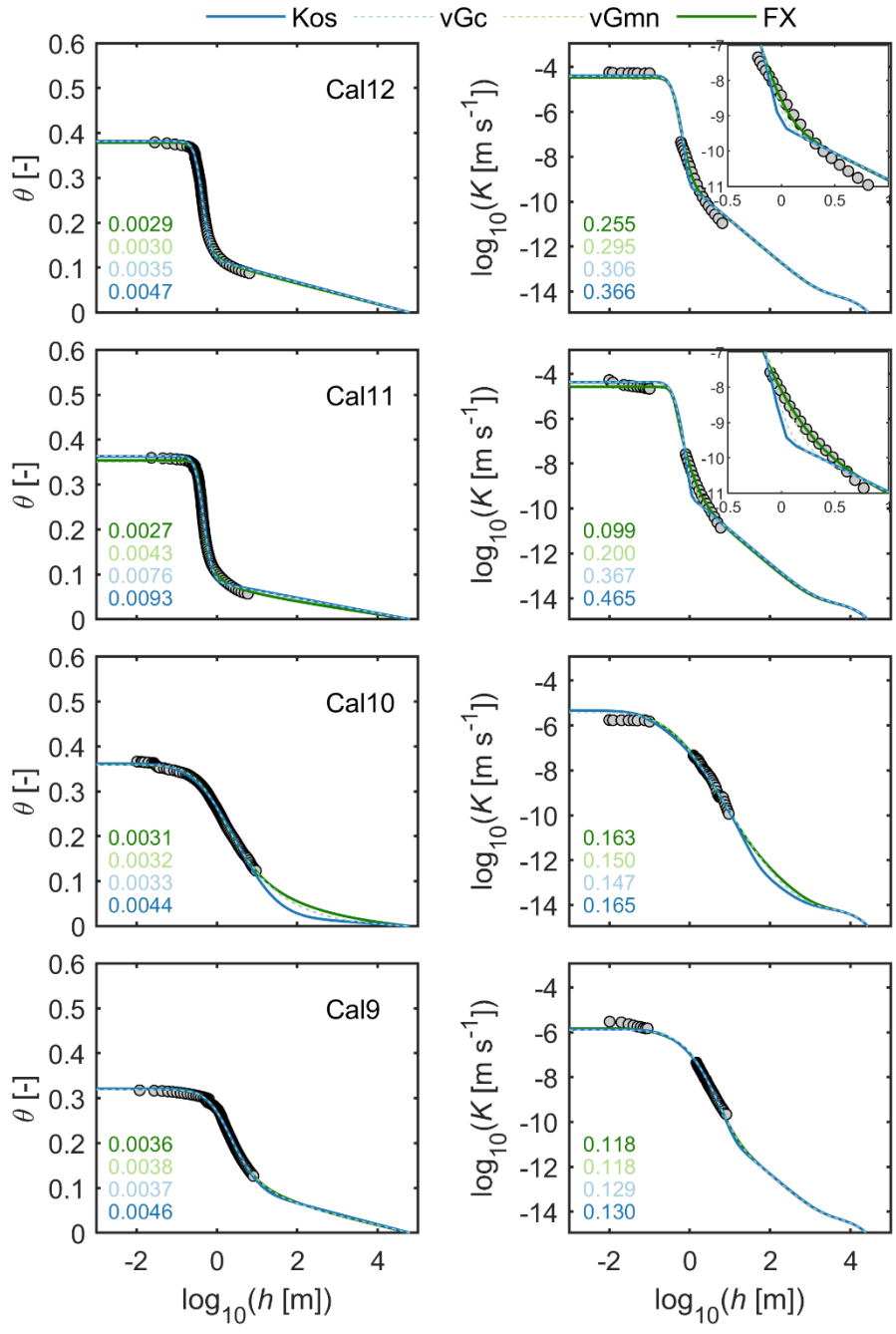
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15 S1: Calibration data sets and the fitted water retention and conductivity functions used to calibrate
 16 the saturated tortuosity coefficient τ_s in Eq. (19). Shown are data set 1 to 4 of the 12 calibration data
 17 sets. Parameter λ was set to a value of 0.5 according to Mualem (1976a). Parameter τ_s and the
 18 retention parameters were allowed to vary. Numbers in the subplots indicate RMSE_θ and RMSE_{logK}
 19 values for the various model combinations.



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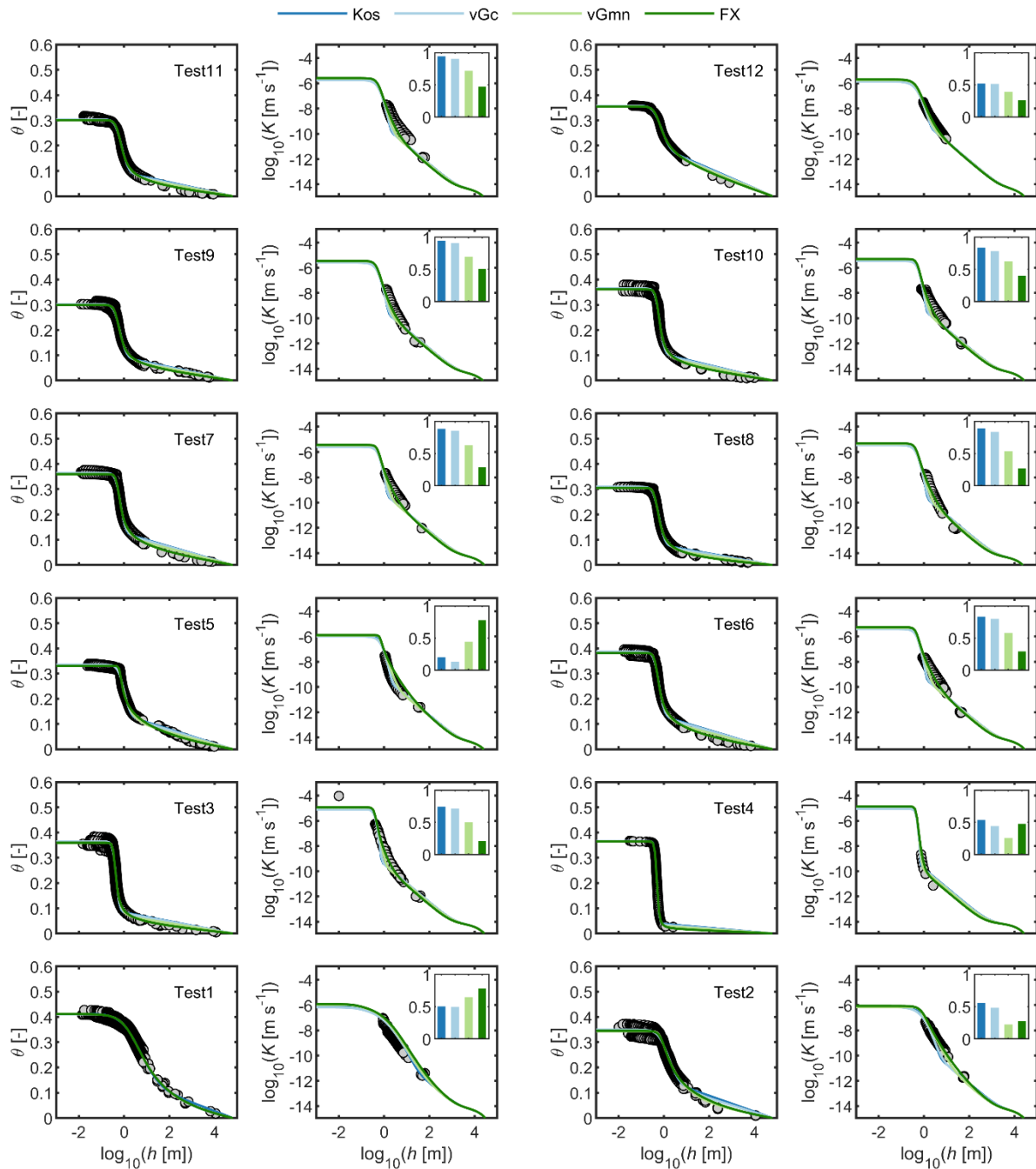
21 S2: Calibration data sets and the fitted water retention and conductivity functions used to calibrate
 22 the saturated tortuosity coefficient τ_s in Eq. (19). Shown are data set 5 to 8 of the 12 calibration data
 23 sets. Parameter λ was set to a value of 0.5 according to Mualem (1976a). Parameter τ_s and the
 24 retention parameters were allowed to vary. Numbers in the subplots indicate RMSE_θ and RMSE_{logK}
 25 values for the various model combinations.



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27 S3: Calibration data sets and the fitted water retention and conductivity functions used to calibrate
 28 the saturated tortuosity coefficient τ_s in Eq. (19). Shown are data set 9 to 12 of the 12 calibration
 29 data sets. Parameter λ was set to a value of 0.5 according to Mualem (1976a). Parameter τ_s and the
 30 retention parameters were allowed to vary. Numbers in the subplots indicate RMSE_θ and RMSE_{logK}
 31 values for the various model combinations.

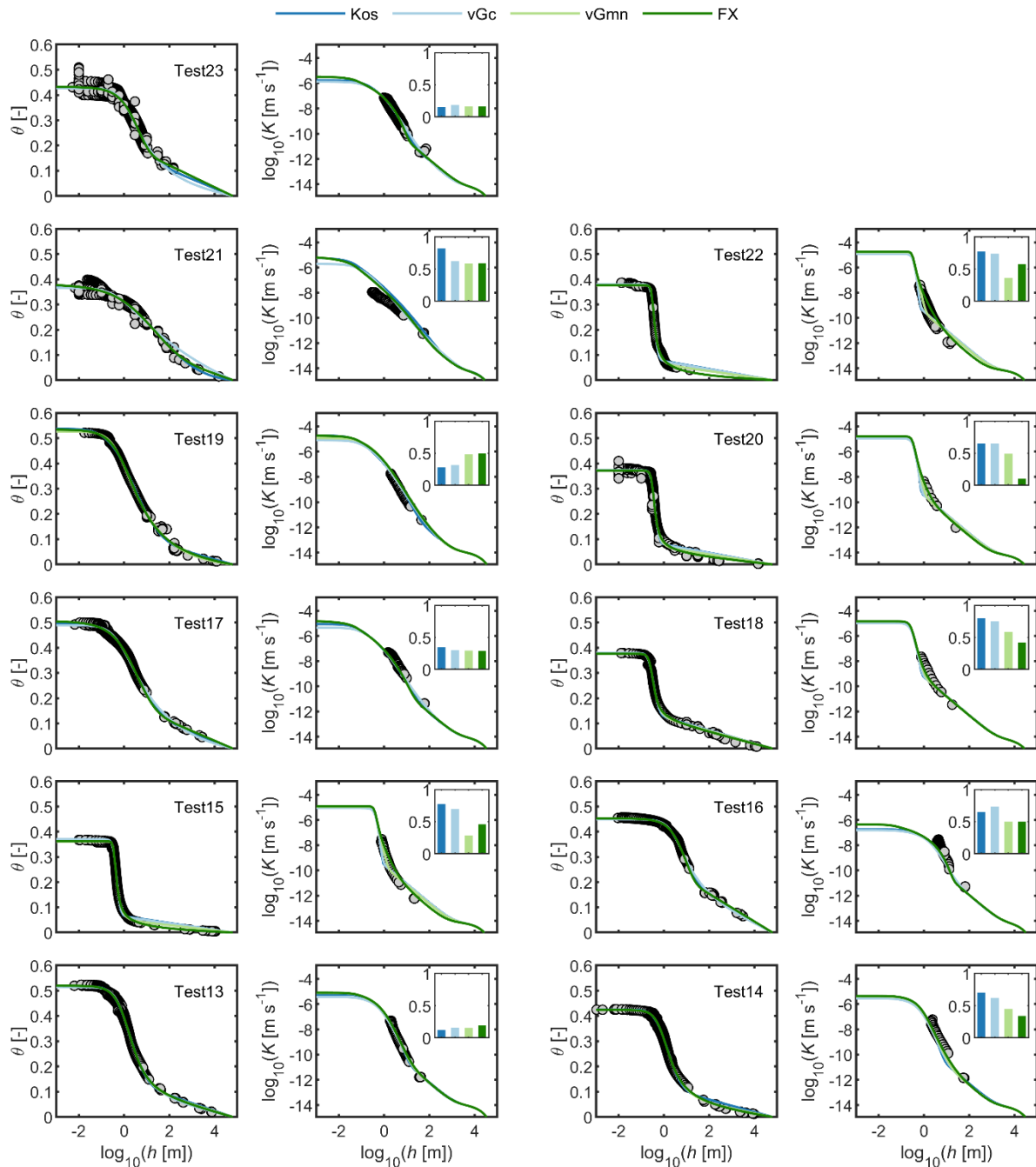
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34 S4: Measured data (dots), fitted retention functions (left) and predicted conductivity functions
 35 (right). Shown are the first 12 out of the 23 test data sets. Bars show the RMSE_{logK} values for the
 36 different used basic functions. Note that the conductivity curves are not fits to the data but pure
 37 predictions.

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40 S5: Measured data (dots), fitted retention functions (left) and predicted conductivity functions
 41 (right). Shown are data set 13 to 23 of the test data sets. Bars show the $RMSE_{\log K}$ values for the
 42 different used basic functions. Note that the conductivity curves are not fits to the data but pure
 43 predictions.

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