

Supplement of Hydrol. Earth Syst. Sci., 24, 1189–1209, 2020
<https://doi.org/10.5194/hess-24-1189-2020-supplement>
© Author(s) 2020. This work is distributed under
the Creative Commons Attribution 4.0 License.



Supplement of

On the conceptual complexity of non-point source management: impact of spatial variability

Christopher Vincent Henri et al.

Correspondence to: Christopher Vincent Henri (chenri@ucdavis.edu)

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.

List of Figures as Supplementary Material:

- **Figure S1:** Time series of recharge rates
- **Figure S2:** Time series of nitrate mass flux
- **Figure S3:** Histogram of $\ln K$
- 5 • **Figure S5:** Histogram of initial concentration
- **Figure S6:** Convergence of travel times
- **Figure S7:** Convergence of concentrations
- **Figure S8:** Histograms of effective parameters
- **Figure S9:** Convergence of effective parameters mean

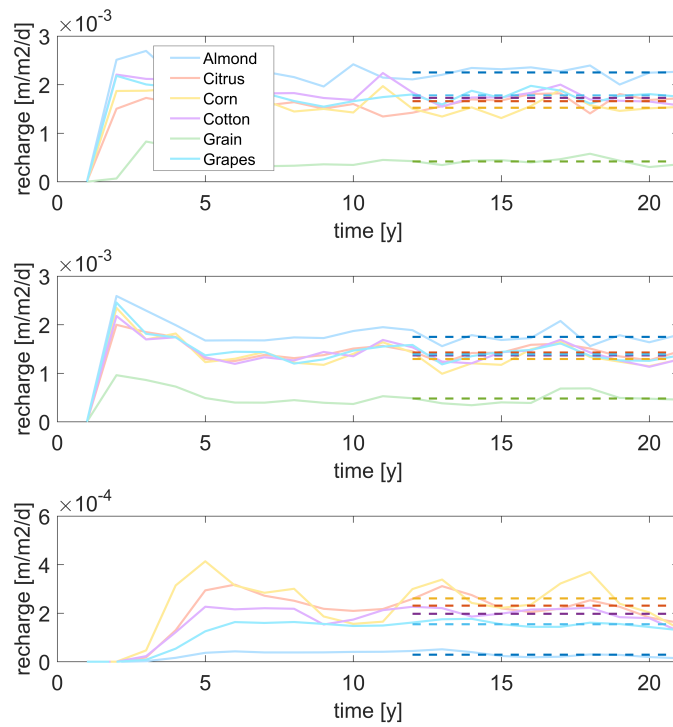


Figure S1: Hydrus simulations output: Temporal evolution of the recharge rate for each crops (given by different color lines) for the three tested soil types (top: sand, middle: muddy-sand, bottom: mud). The dashed lines represent the temporal averages used in the study.

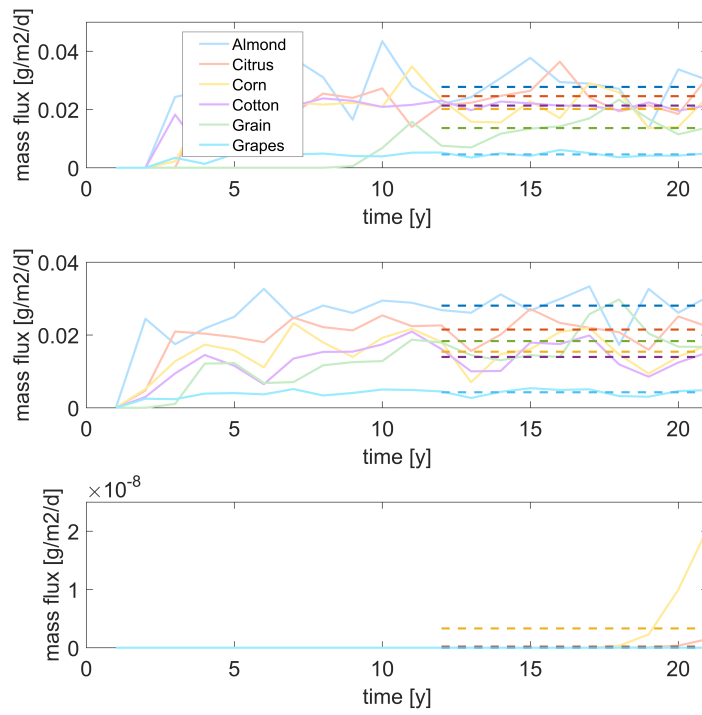


Figure S2: Hydrus simulations output: Temporal evolution of the leaking nitrate mass flux for each crops (given by different color lines) for the three tested soil types (top: sand, middle: muddy-sand, bottom: mud). The dashed lines represent the temporal averages used in the study.

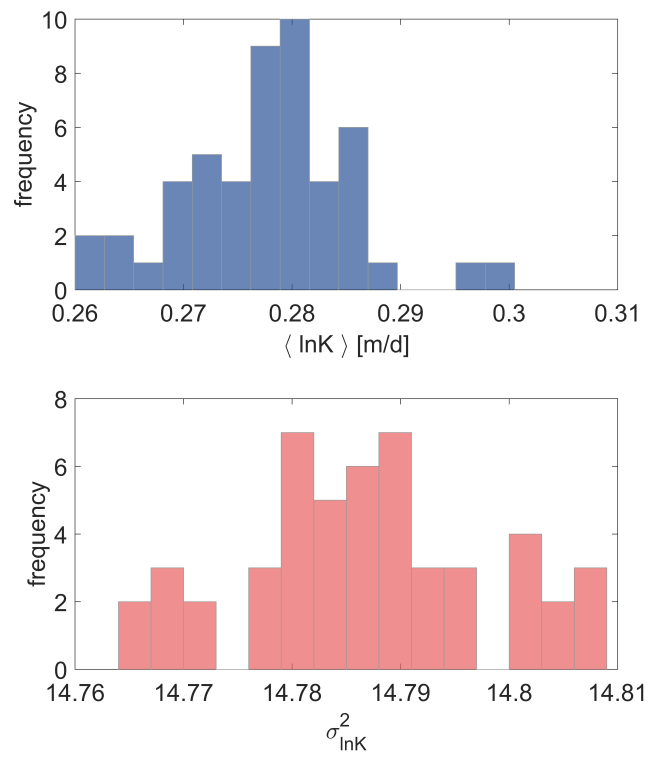


Figure S3: Histogram of the mean (top) and variance (bottom) of the log-normal hydraulic conductivity.

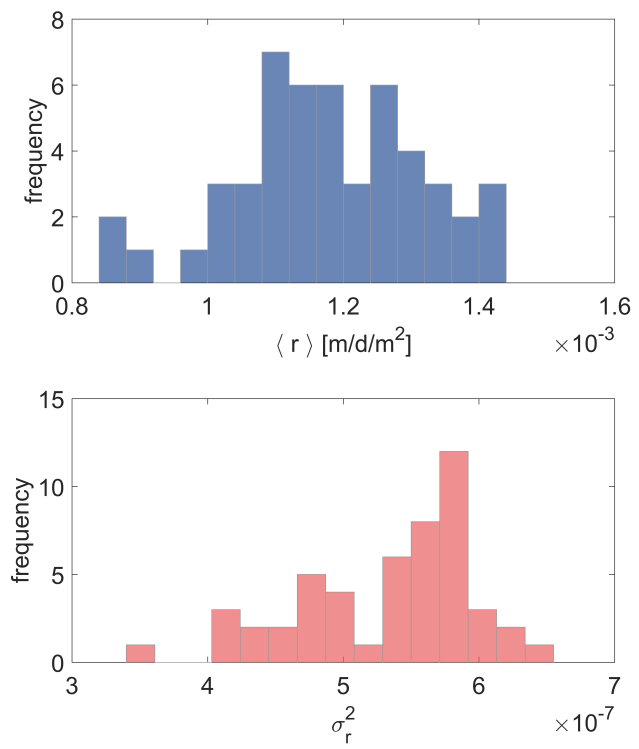


Figure S4: Histogram of the mean (top) and variance (bottom) of the spatially variable recharge rate.

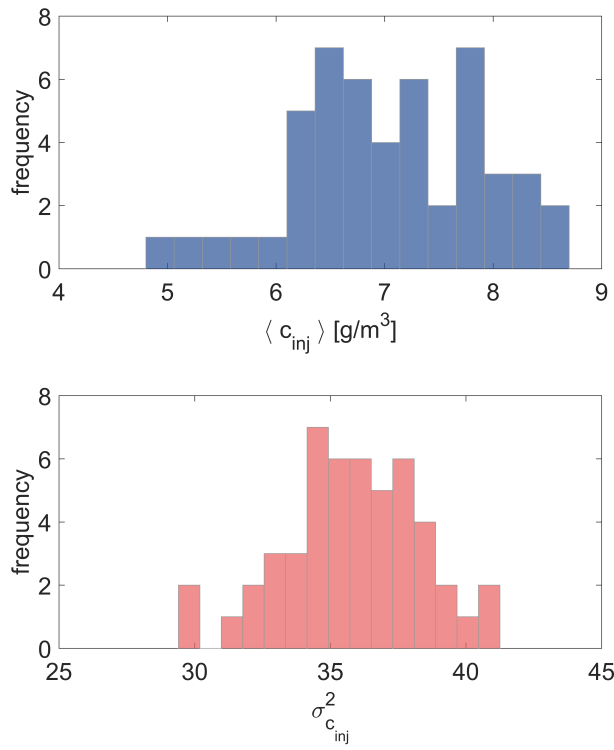


Figure S5: Histogram of the mean (top) and variance (bottom) of the spatially variable source concentration.

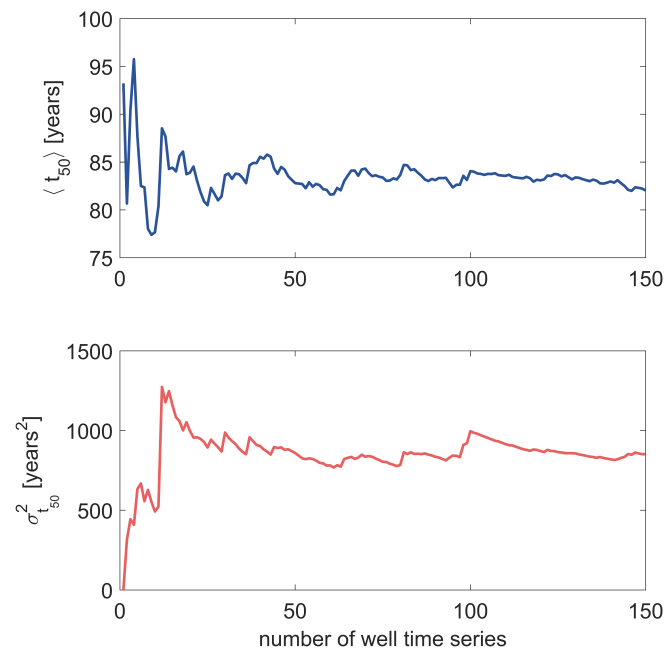


Figure S6: Convergence of the mean (top) and variance (bottom) of the time required for 50% of the total recorded mass to reach a well.

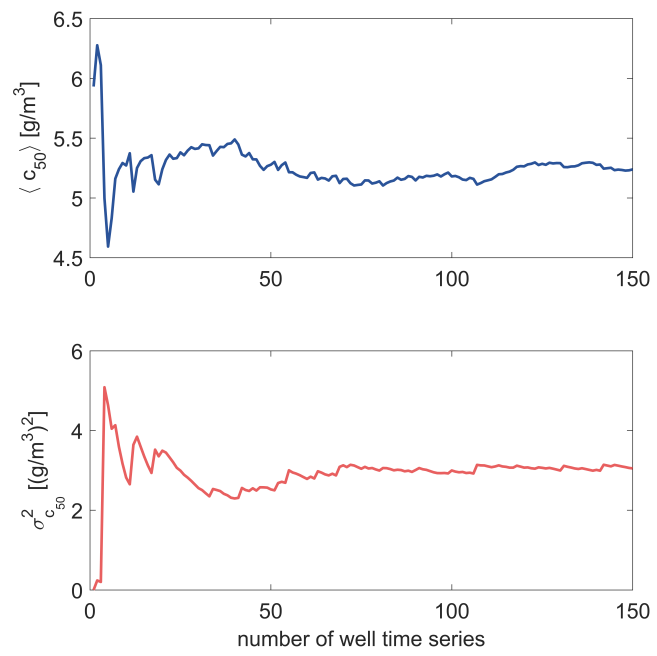


Figure S7: Convergence of the mean and variance of the concentration exceeded by 50% of the wells.

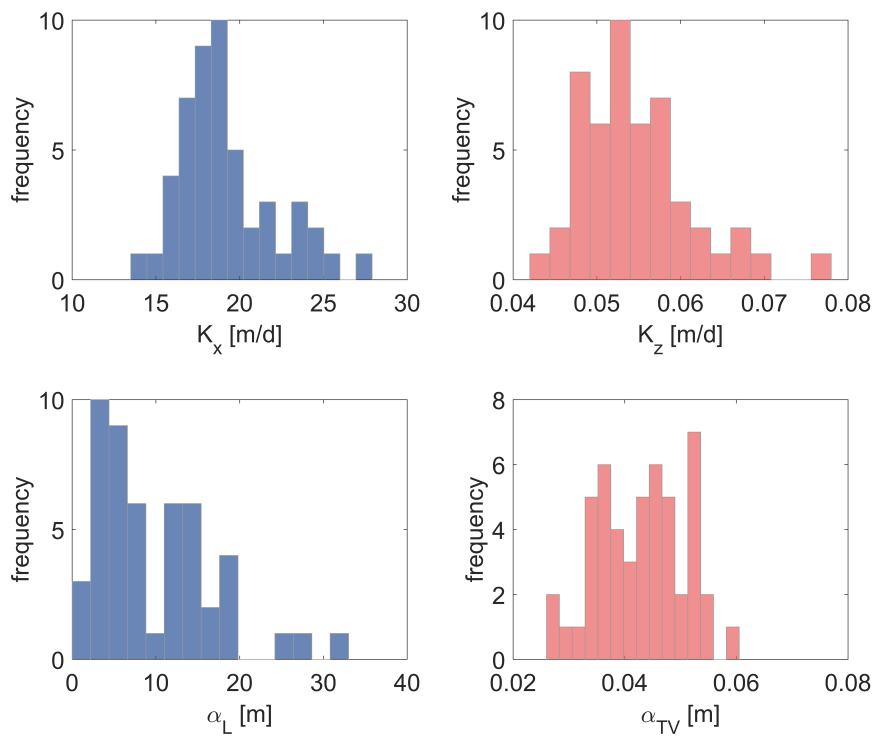


Figure S8: Histograms of the apparent hydraulic conductivity (top) and apparent dispersion (bottom) in the longitudinal (left) and vertical (right) flow direction.

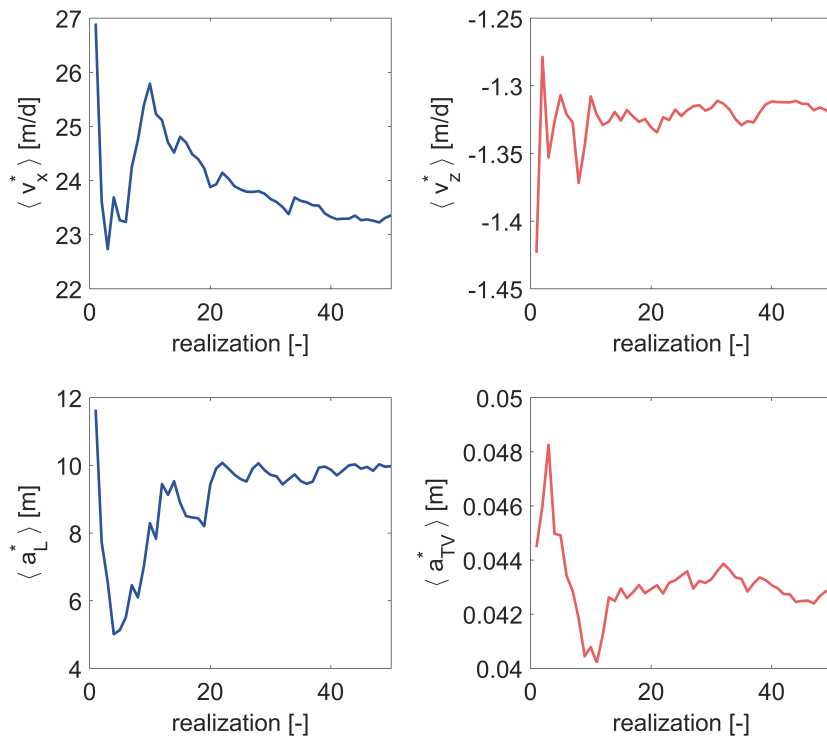


Figure S9: Convergence of the mean apparent velocities (top) and apparent dispersion (bottom) in the longitudinal (left) and vertical (right) flow direction.