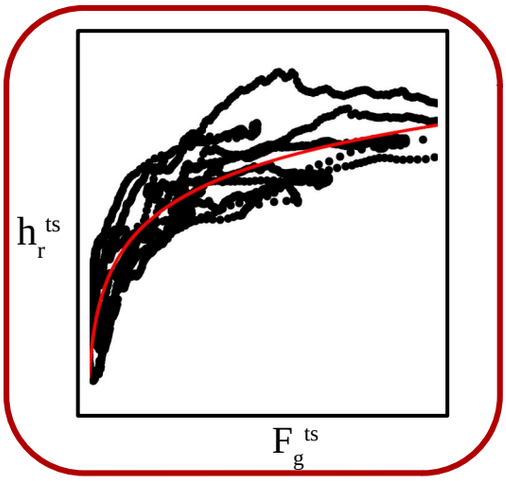
Data acquisition and flux computation

Water table elevation from piezometer, h_w

Soil moisture from reanalysis, θ

Flux toward the aquifer and relevant characteristic quantities



$$h_w^{ts} = f\left(F_g^{ts}, h_w^*, F_g^*, k_{i,\ldots}^{ts}, k_n^{ts}\right)$$

Model identification and calibration

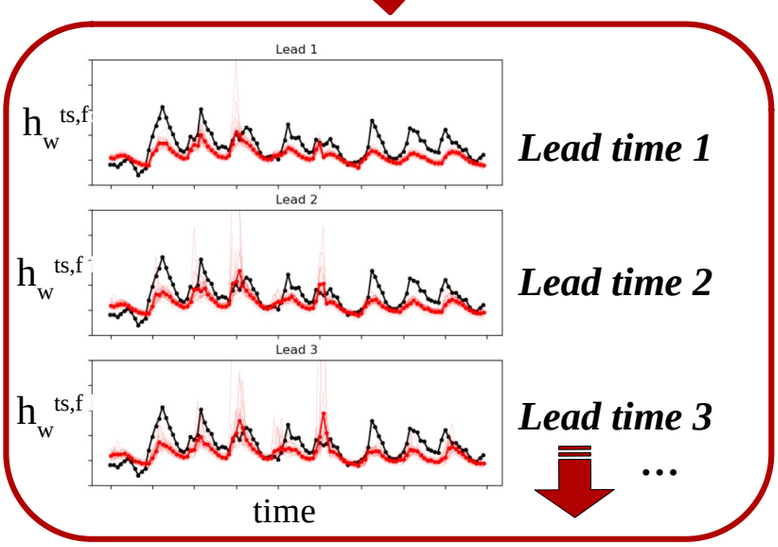
Water table elevation forecast

For each ***lead time,*** from ***1 to 6 months***

Soil moisture Bias Adjustment to ERA5

Relative flux toward the aquifer, $F_g^{ts,f}$

Soil moisture forecast from SEAS5, θ^f

For each ***lead time,*** from ***1 to 6 months***

$$h_w^{ts,f} = f\left(F_g^{ts,f}, h_w^{*,f}, F_g^{*,f}, k_{i,\ldots}^{ts}, k_n^{ts}\right)$$