

Trigger — Water withdrawal dataset:  $X_1 \sim \mathcal{D}\mathcal{U}(1, 6)$  — 1: LPJmL

— 2: H08

— 3: PCR-GLOBWB

— 4: WaterGap

— 5: Aquastat

— 6: Liu et al. 2016

— 7: DBHM

— 8: VIC

— 9: MPI-HM

— 10: CLM45

— Imputation method:  $X_2 \sim \mathcal{D}\mathcal{U}(1, 3)$  — 1: Bayesian linear regression

— 2: Linear regression with bootstrap

— Iteration selected:  $X_3 \sim \mathcal{U}(1, 40)$  — 3: Linear regression without model error

— Regression method:  $X_4 \sim \mathcal{U}(1, 2)$  — 1: Ordinary Least Squares Regression (OLS)

— 2: Robust regression