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Flood-related extreme precipitation in southwestern Germany: development of a two-dimensional stochastic precipitation model

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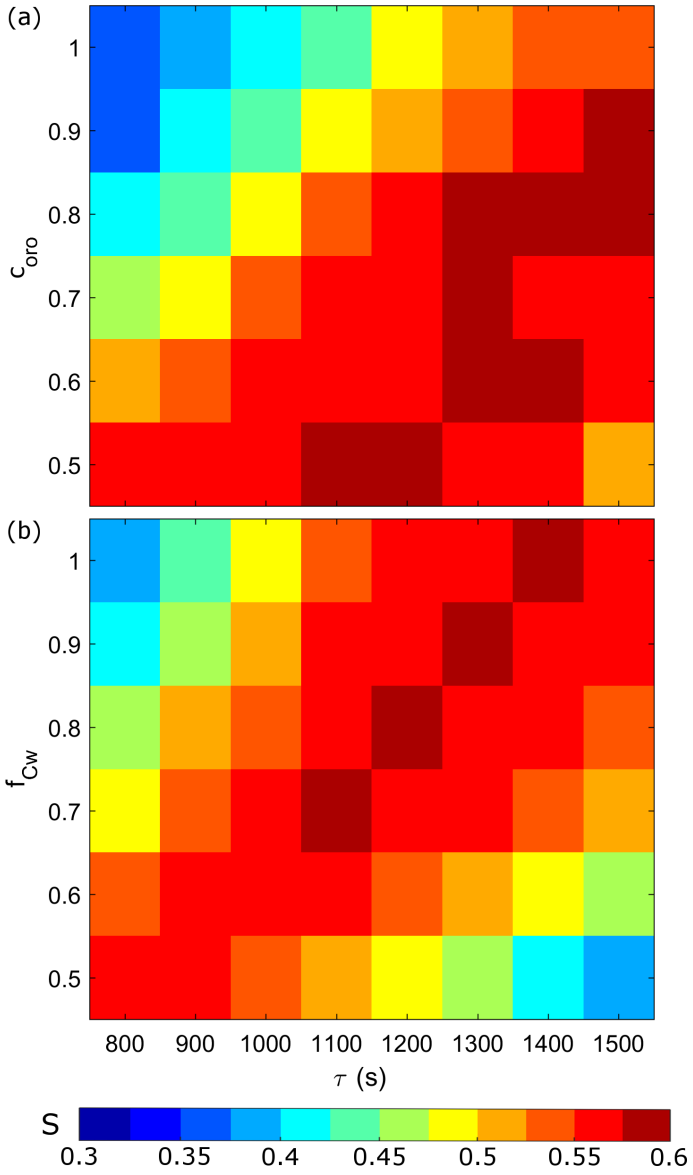

Figure S1. Sill score S, averaged over the top200 event set, depending on τ and (a) c_{oro}, and (b) f_{Cw}, while the other free parameters, respectively, were set to their optimum values.

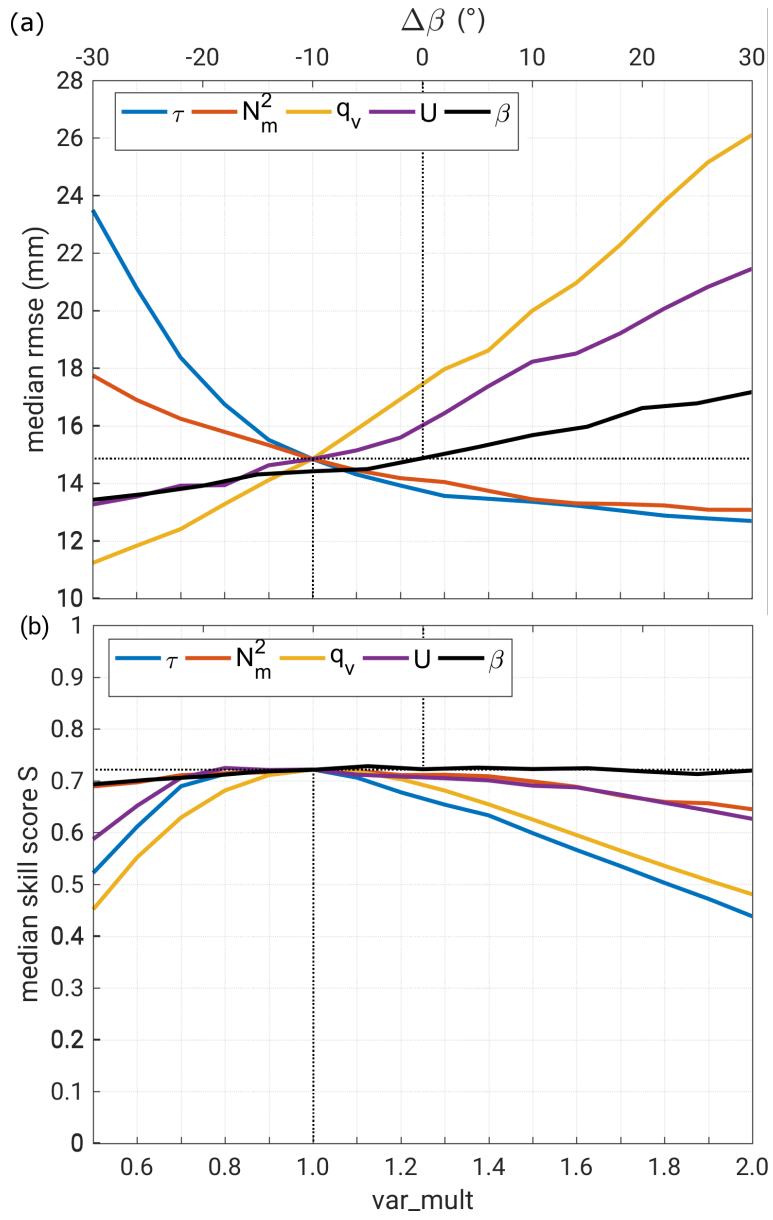

Figure S2. Median of the top200 event set for (a) rmse and (b) skill score S as a function of N^2_{m}, q_{v}, U, β, and τ perturbed by a multiplicative factor ($0.5 \leq var\_mult \leq 2$) and changed $\Delta\beta$. The dotted lines indicate the values of the reference run.

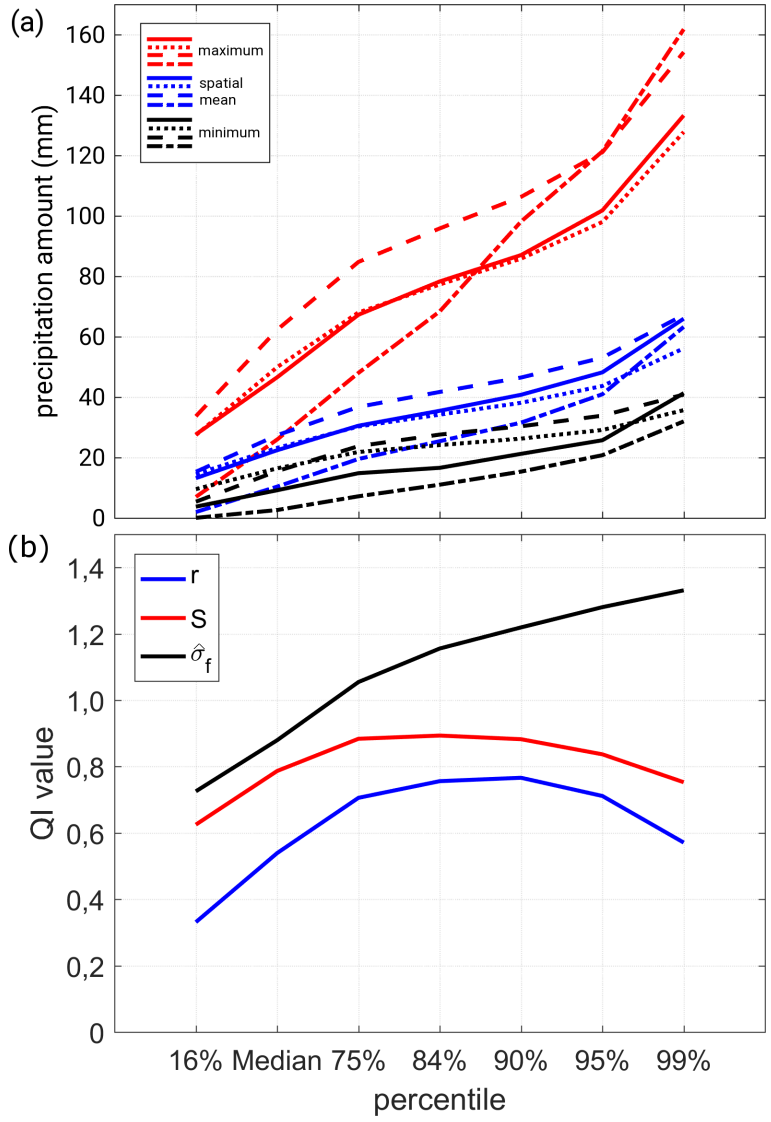

Figure S3. Comparison of (a) the maximum (red), the minimum (black), and the spatial mean precipitation (blue) of REGNIE (solid line), the SPM2D (dotted line), the SBA+M (dashed line) and CCLM simulations (dot-dashed line), and (b) quality indices (QI) r, S, and $\hat{\sigma}_{\mathrm{f}}$ for different percentiles of the SPM2D compared to REGNIE.