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Performance of combined regionalization methods in Saxony, Germany

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The spatial extension of flood frequency estimations is of vital importance in practical engineering purposes, particularly in the case of prediction in ungauged catchments. From a theoretical point of there have been many different approaches, which could be classified in two main groups: pooling and interpolation/regression methods. In this case study in Saxony (Germany), the performance of different approaches was first separately compared: Index-Flood method belonging to the first group; georegression and Top-Kriging to the second. On a second step, different combinations of the methods were analyzed with different goodness-of-fit metrics, obtaining in some cases better results than with the original methods.