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Historical droughts in central Europe and their large-scale climate drivers

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While relatively long series of instrumental weather measurements and direct observations exist for central Europe, these records can be extended even further to the past by reconstructions based on proxy or documentary data. Here, we utilize some of these extended records to carry out an analysis of long series of drought-related characteristics, covering the period since the early 16th century. The series of drought indices have been subjected to statistical analysis aimed at attribution of their temporal variability to prominent the climate-forming factors, related to (reconstructions of) external climate forcings (particularly solar and volcanic activity) as well as large-scale climate variability modes. Due to the potentially limited reliability of some of the reconstructions predating the instrumental era, attention has also been paid to the assessment of robustness of the results obtained by application of data from different sources.