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Climate extremes: A review of handling space

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When performing statistical analysis of extreme values (here defined to be those values with a very small probability of happening, but with many opportunities to happen), it is well-known that use of the extreme value distributions (EVD's) such as the GEV (block maxima) and GPD (threshold excesses) have strong theoretical support. Numerous papers on climate change have been making use of EVD's. However, most ignore spatial dependence in the data, fitting EVD's independently at different locations. Indeed, handling spatial information in this context is an active area of statistical research. Here, a review of the latest techniques will be given.