



Weather Generators – the fine art of synthesizing climate time series

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As a common tool for downscaling future climate projections and generate time series that include the signature of climate and climate change, stochastic weather generators (WG) are frequently applied. They "reshuffle" segments of the current climate and rearrange them to form a sort of "alternative reality", a process that implicitly retains the physical relations between the atmospheric properties. When applying WGs to synthesize time series that bear the signature of a future climate, the basic material consists of segments from the current climate, too. There is a need to define criteria for the selection and rejection of segments. A common approach is that the synthesized time series should reflect changes in the large-scale circulation. The presentation will reveal that meeting this seemingly simple requirement is not just as simple.