



Weekend - and the weather is bad again! A spatio-temporal analysis of precipitation in Austria

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It is popular belief that the weather is “bad” more frequently on weekends than on other days of the week and this is often perceived to be associated with an increased chance of precipitation. In fact, the meteorological literature does report some evidence for such human-induced weekly cycles although these [U+FB01] findings are not undisputed. To contribute to this discussion, a modern data-driven approach using structured additive regression models is applied to a newly available high-quality data set for Austria. The analysis investigates how an ordered response of rain intensities is in [U+FB02] uenced by a (potential) weekend effect while adjusting for spatio-temporal structure using spatially varying effects of overall level and seasonality patterns.

The underlying data are taken from the HOMSTART project which provides daily precipitation quantities over a period of more than 60 years and a dense net of more than 50 meteorological stations all across Austria.