Boundary layer processes in a mountainous region south of Vienna, Austria

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The Rosalia Lehrforst, southeast of Vienna and one of the boundaries of the Vienna basin, is a semi-complex forested mountain range used for teaching and studies of the atmosphere, land-surface interactions, hydrological studies such as heavy precipitation events, and many more. Different kinds of observation data sets, including three meteorological observations sites within the Lehrforst and several observations sites outside, are available. Within this study the WRF model is used to evaluate the effects of different kinds of land-use and soil types, including different soil moisture conditions on the boundary layer and boundary layer processes within the Lehrforst and the southern Vienna basin.