



Present and future climate planetary boundary layer energetics over the Iberian Peninsula obtained from a TKE closure in a regional climate model

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The results of present climate (1961-1990) and future climate (2070-2100) conditions under SRES-A2 emissions scenario simulations obtained by PROMES-RCM regional climate model are presented here. The planetary boundary layer (PBL) parameterization uses a TKE prognostic equation closure, allowing an analysis of the main energetic processes involved in the PBL on climatic scales. Although the simulations cover most of Europe, this study is focused on the Iberian Peninsula (IP), as it has shown several aspects of specific interest. Seasonal characteristics, differences among subregions in the IP, and relation of PBL processes and upper atmosphere conditions will be analyzed. How the PBL is described by this parameterization for present climate conditions, and how it can be modified for climate change conditions are the two main aims of this study.