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Parameterization of BL flows in nonhydrostatic HIRLAM

R. Rõõm (1), A.Luhamaa (2), A. Männik (3)

(1) Tartu University, Estonia, (2) Tartu University, Estonia, Estonian Meteorological and Hydrological Institute, Tallin

The NH assumption introduces vertical forcing into equations of atmospheric dynamics which, alongside with enhanced numerical resolution, require modification of subgrid-scale turbulent friction terms in numerical weather prediction models. A nonhydrostatic, pressure-coordinate based extension to the NWP model HIRLAM has been recently developed at the University of Tartu. The model makes use of two-time-level, semi-implicit, semi-Lagrangian advection scheme, and it is under acronym ETB in preoperational testing at the Estonian Meteorological and Hydrological Institute. The presentation concentrates on the modifications of the BL subgrid schemes, currently applied and under investigation in ETB.