

« **Turbulent scheme eTKE** »

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The aim of the thesis is the development of new turbulent scheme for ALADIN/ARPEGE model. New scheme (eTKE = emulation Turbulence Kinetic Energy) is an extension of pTKE scheme. It replaces Louis stability functions F_m , F_h with new stability functions, which are derived from TKE equation. The idea is to have eTKE scheme equivalent to full TKE scheme for the nondiscretised equations. eTKE is able to emulate full TKE turbulent schemes. In the thesis are emulated 3 TKE schemes: CBR (Cuxart, Bougeault), CCH (Cheng, Canuto, Howard) and QNSE (QuasiNormal Scale Elimination - Sukoriansky, Galperin, Perov, Staroselsky).

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