Динамически согласованная параметризация мезомасштабных вихрей

П.С. Берлов

Imperial College London, Лондон, Великобритания

This work aims at developing new approach for parameterizing mesoscale eddy effects for use in non-eddy-resolving ocean circulation models. The idea is to approximate transient eddy flux divergence in a simple way, to find its actual dynamical footprints, and to relate these footprints to large-scale flow properties. This work aims at developing new approach for parameterizing mesoscale eddy effects for use in non-eddy-resolving ocean circulation models. These effects are often modelled as some diffusion process or a stochastic forcing, and the proposed approach is implicitly related to the latter category. The idea is to approximate transient eddy flux divergence in a simple way, to find its actual dynamical footprints by solving a simplified but dynamically relevant problem, and to relate the ensemble of footprints to the large-scale flow properties.