



A climate-dependent subgrid-scale parameterization in a three-layer quasi-geostrophic model

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We discuss how a climate dependence can be introduced in objectively tuned empirical parameters in the parameterization of unresolved scales. We apply the fluctuation-dissipation-theorem to predict the change in the statistics of a perturbed climate and use this information to correct the empirical parameters. This approach is tested within the framework of a low-order atmospheric model on the sphere with empirical stochastic closure.