



## *Parametric sensitivity of geostrophic turbulence*

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Insight into atmospheric dynamics at mid-latitudes can be derived from the Barotropic Quasi-Geostrophic Potential Vorticity Equation. This equation incorporates the effects of the Earth's rotation and allows for horizontal divergence. The characteristics of the solution are determined by three dimensionless parameters: the Reynolds, Rhines and Burger numbers. These numbers measure respectively the importance of viscosity, the beta-effect and divergence.

By holding the Reynolds number fixed and varying the Rhines and Burger numbers, we can gauge the relative importance of the rotation and divergence terms respectively. Smaller Burger and Rhines numbers have the effect of blocking the flow of energy to the ground state. The  $k^{-3}$  spectrum in the inertial range is robust to changes to these dimensionless quantities. However, the character of the (quasi)-equilibrium solution is very sensitive to them. Results for a comprehensive range of values in parameter space will be presented.