

10. Quasi-Geostrophy

ON THE SCALE OF ATMOSPHERIC MOTIONS

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Jet Formation and Evolution in Baroclinic Turbulence with Simple Topography

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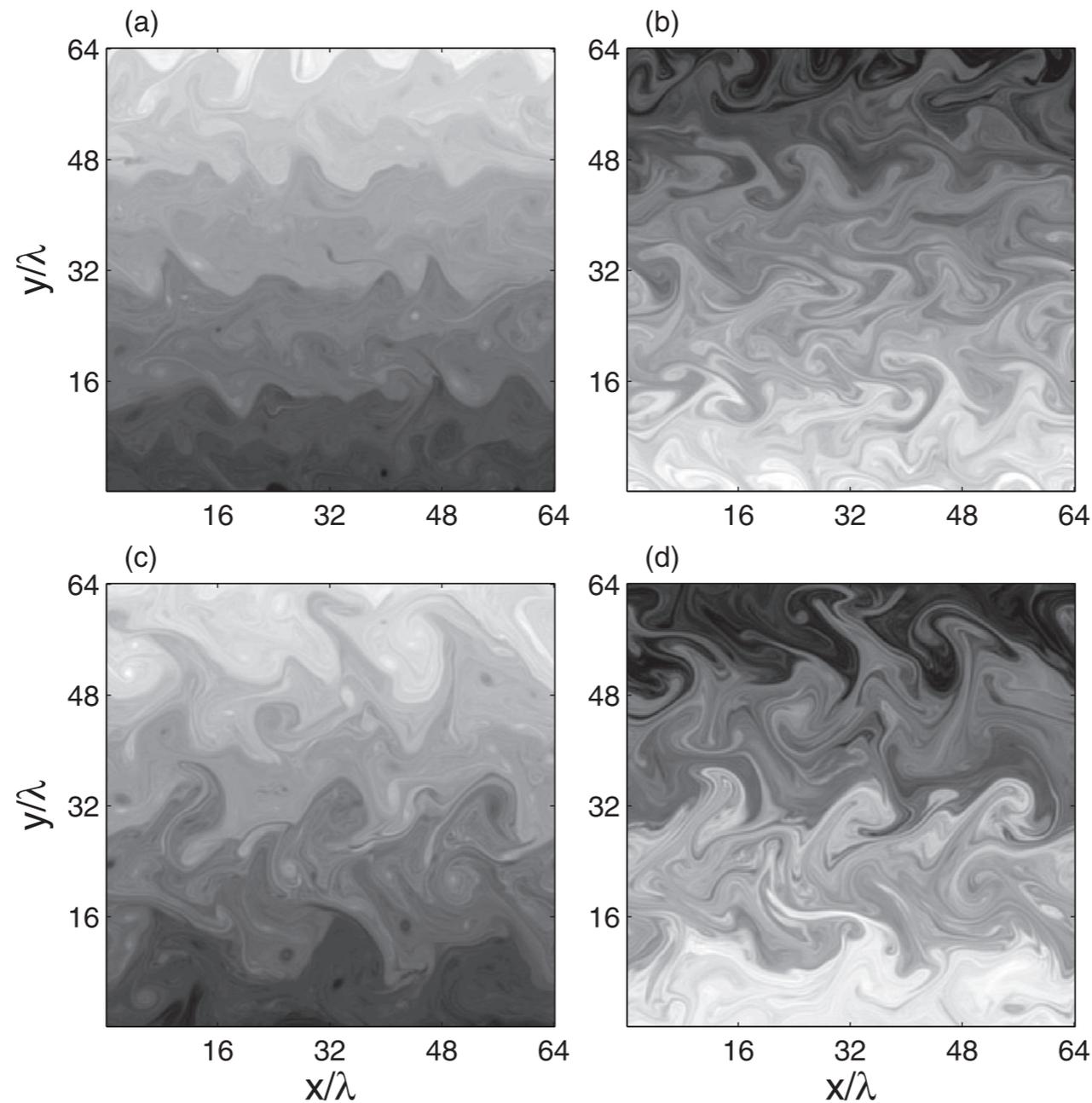
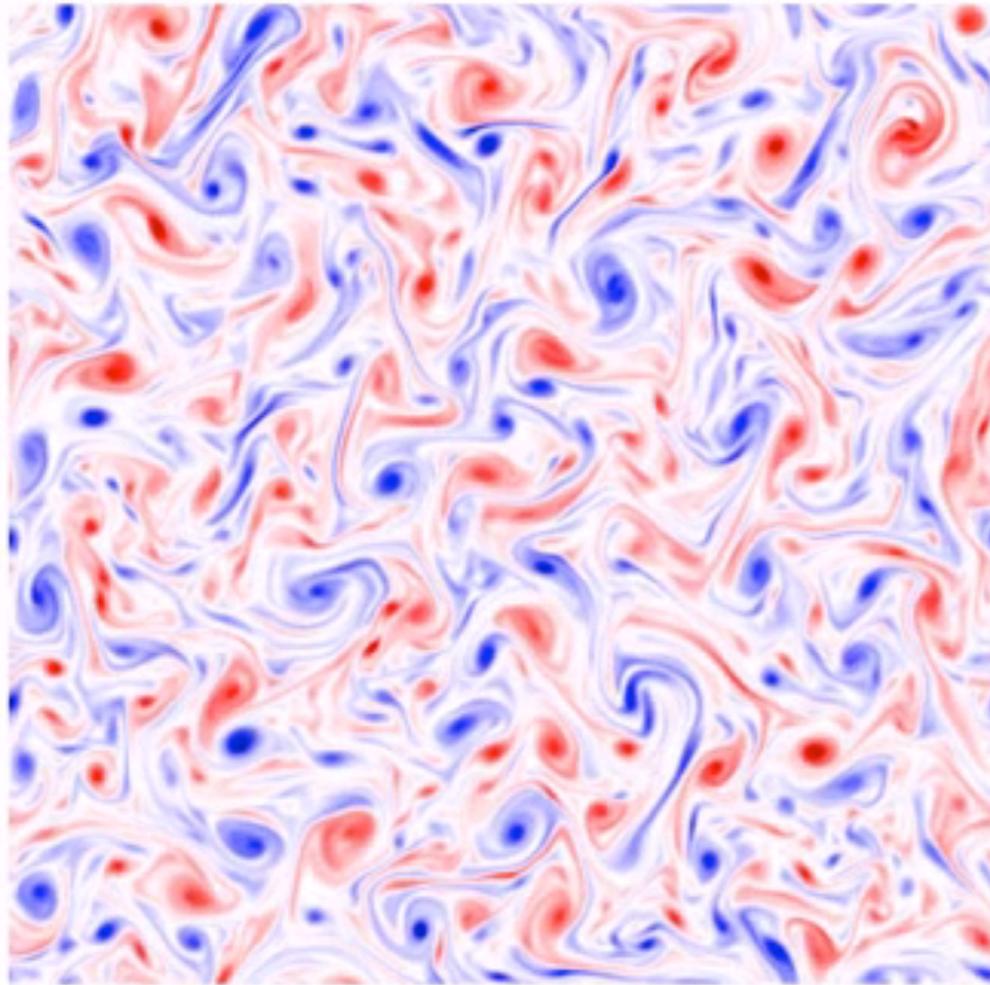


FIG. 1. Snapshots of PV in the (a) upper and (b) lower layers of a quasigeostrophic simulation with a flat bottom; the parameters are $\beta = 0.75$ and $\kappa = 0.1$ (see section 2a for details). (c),(d) Snapshots of PV in the upper and lower layers, respectively, of a simulation with bumpy bottom topography. The topography is defined by a series of sinusoidal bumps as in (19) with $k_T = 6\pi/64\lambda$ and $s = 1.0$ (Fig. 2). The topography causes the lower-layer meridional PV gradient to vary between $-1.25U/\lambda^2$ and $0.75U/\lambda^2$. All other parameters are the same as in the top panels.

690.5

Vorticity



Streamfunction

