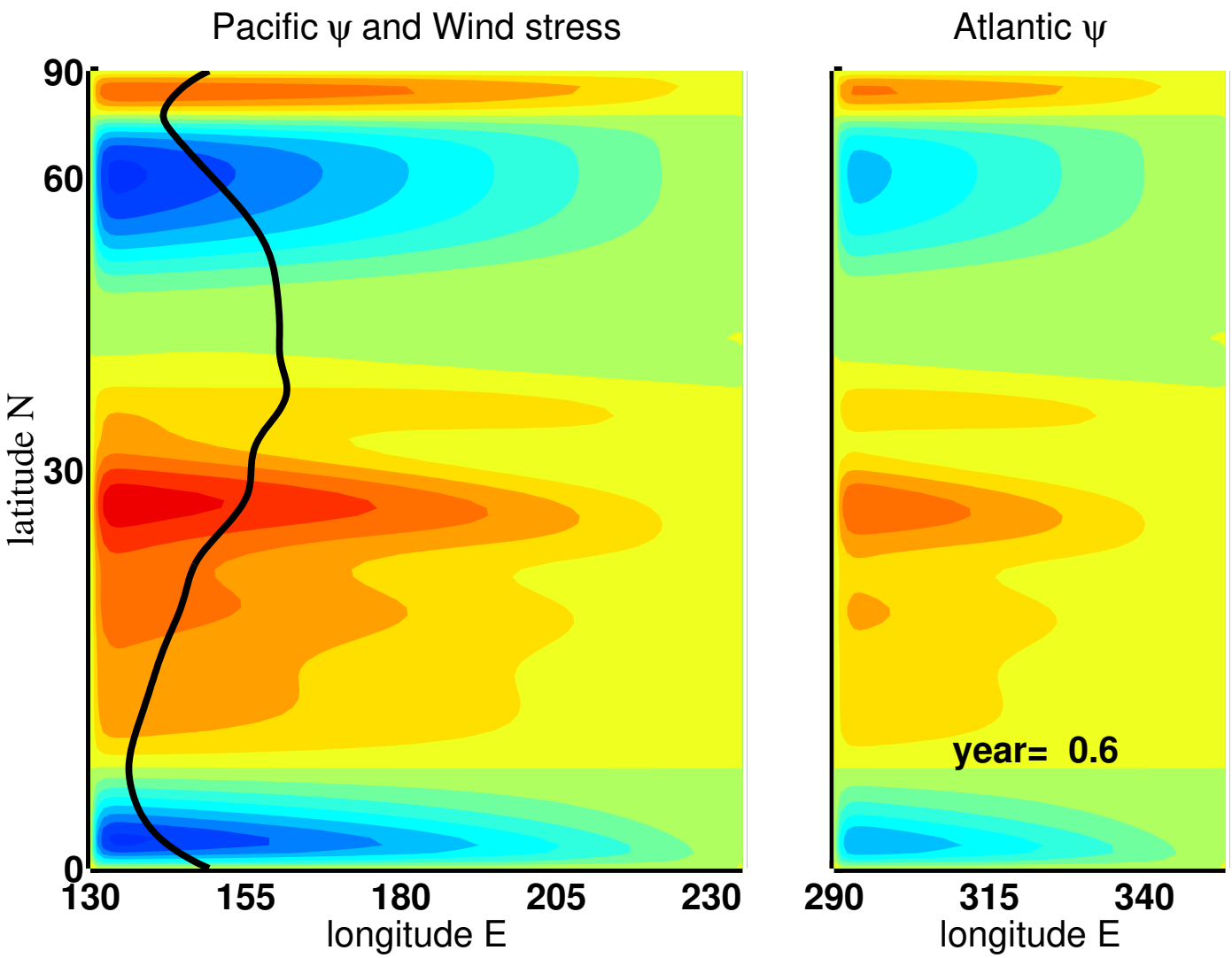
Ocean momentum budget: wind-driven flow



♢ $\bar{\tau}$ determines the one-layer PV dynamics (linear):

♢ $$\frac{f_o^2}{g' H_i} \partial_t \psi_i - \beta \partial_x \psi_i = \frac{\bar{\tau}_y}{\rho_w H_i} + \epsilon \nabla^2 \psi_i .$$