On the inverse cascade and flow speed scaling behavior in rapidly rotating Rayleigh-Bénard convection: Supplementary Material

S. Maffei[1,3]†, M. J. Krouss[1], K. Julien[2] and M. A. Calkins[1]

[1]Department of Physics, University of Colorado, Boulder, USA
[2]Department of Applied Mathematics, University of Colorado, Boulder, USA
[3]School of Earth and Environment, University of Leeds, Leeds, UK

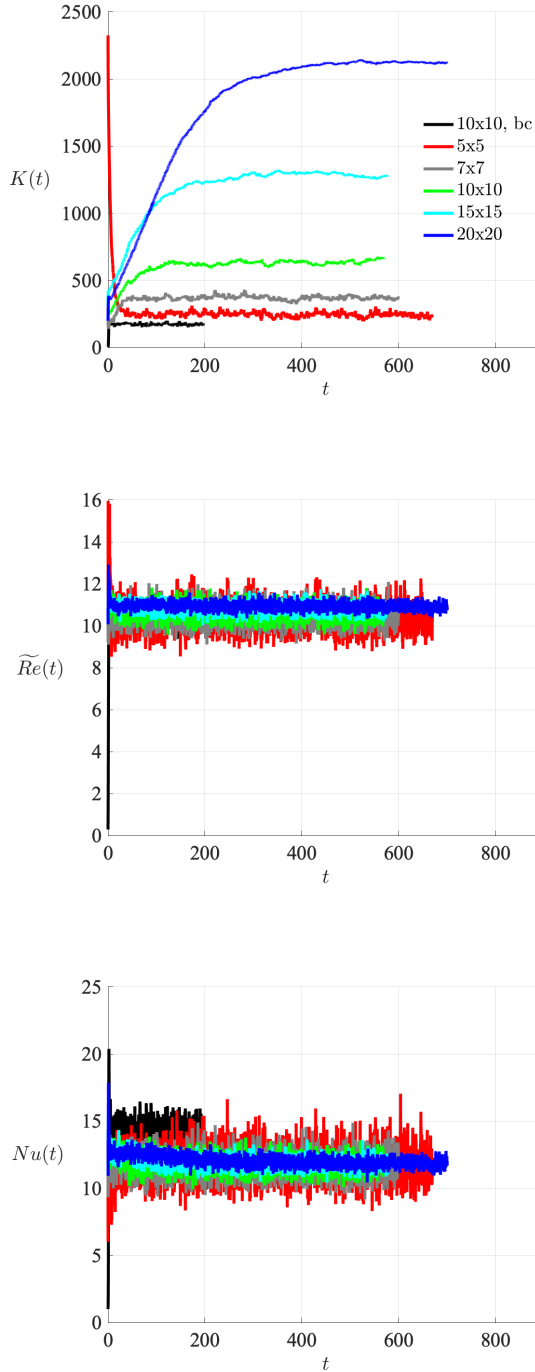† Email address for correspondence: S.Maffei@leeds.ac.uk

Figure 1: Time-series of simulations ($\widetilde{Ra} = 40, Pr = 1$) and different horizontal domain size in terms measured in amounts of critical wavelengths. The black curve represents a calculation with horizontal size $10\lambda_c \times 10\lambda_c$ where the variable $\langle\psi\rangle$ has been set to zero at the beginning of every timestep.
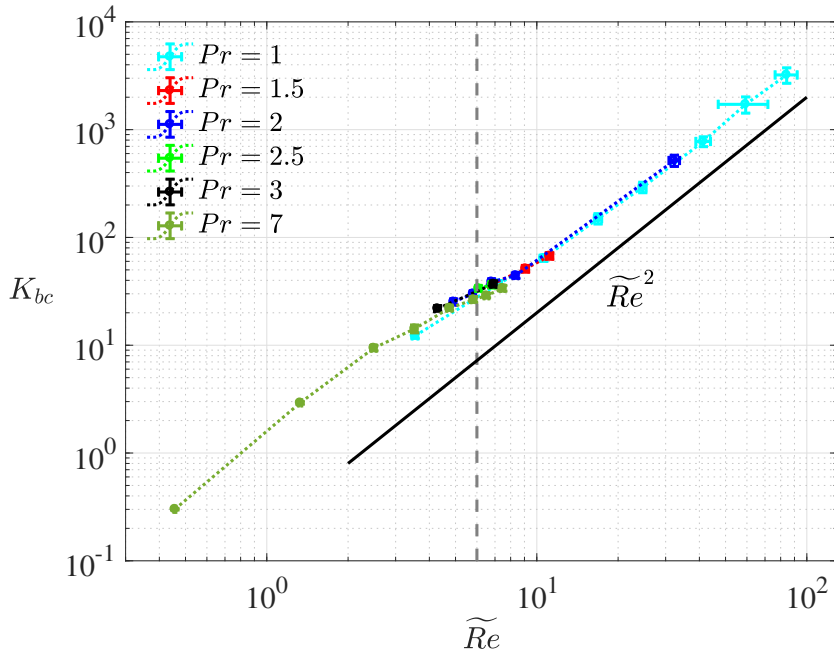
Figure 2: Time-averaged baroclinic kinetic energy, K_{bc}, as a function of the time-averaged Reynolds number $\widetilde{Re}$ and Pr. The black line, indicating the $\widetilde{Re}^2$ behavior is added for reference.