

Abstract Submitted
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Traveling circular waves in rotating convection¹ A. RUBIO, J.M. LOPEZ, Arizona State University, F. MARQUES, Politechnic University of Catalonia — Boussinesq convection in a rotating circular cylinder is investigated numerically. For low Raleigh numbers, a steady wall mode is established which develops into a steady cellular target pattern (circular waves) on increasing the Raleigh number (analogous to the onset of Taylor cells from endwall vortices as the Reynolds number is increased). Beyond a critical Raleigh number, the circular waves begin to drift radially inward. Centrifugal buoyancy (nonzero Froude number) effects play an important role in this flow.

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