Movie 1: Simulation of the classical Rayleigh-Bénard convection in a 2-dimensional square domain, with parameters and .

Movie 2: Simulation of the Rayleigh-Bénard convection perturbed by a horizontal heat flux, with parameters , , and horizontal flux .

Movie 3: Active control of Rayleigh-Bénard convection through the “dynamic-zero” circulation suppression mechanism, where the horizontal flux is determined by the total angular momentum, . Simulation parameters are and .