Movie 1: Simulation of the classical Rayleigh-Bénard convection in a 2-dimensional square domain, with parameters $Ra=10^{8}$ and $Pr = 4.4$.

Movie 2: Simulation of the Rayleigh-Bénard convection perturbed by a horizontal heat flux, with parameters $Ra=10^{8}$, $Pr = 4.4$, and horizontal flux $Nu\_{⊥}=128$.

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, $Nu\_{⊥}=0.128 L$. Simulation parameters are $Ra=10^{8}$ and $Pr = 4.4$.