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Harmonic Forcing on the Stratified Square Lid Driven Cavity JASON YALIM, BRUNO WELFERT, JUAN LOPEZ, STEPHANIE TAYLOR, Arizona State University — Stratified fluids that are driven at an interface, such as oceans or seas, can be periodically driven by wind. As a canonical flow, the square lid driven cavity with a harmonic forcing and a linear temperature gradient serves as a idealized model. Resonances of the harmonic forcing with the internal modes of the system aide energy transfer from the surface to the bulk, leading to interesting dynamics. Using a numerical spectral collocation method, the internal waves of the system are investigated, including their possible interaction and annihilation.

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