

# Movie Captions

- Movie 1: This animation shows the temporal evolution of the non-dimensional vorticity field for the globally stable CPG-CP heated jet with  $S^{-1} = 7$ .
- Movie 2a: This animation shows the temporal evolution of the non-dimensional vorticity field for the globally unstable LTE-T heated jet with  $S^{-1} = 7$ . For this case, no vortex interaction is observed after the transient regime.
- Movie 2b This animation shows the temporal evolution of the non-dimensional vorticity field for the globally unstable LTE-T heated jet with  $S^{-1} = 10$ . For this case, periodic vortex coupling events occur after the transient regime.
- Movie 2c This animation shows the temporal evolution of the non-dimensional vorticity field for the globally unstable LTE-T heated jet with  $S^{-1} = 15$ . For this case, vortices are produced in pairs, and closely follow each other without coupling before the diffusion of these structures renders any observation impracticable.
- Movie 3a: This animation shows the temporal evolution of the non-dimensional baroclinic torque for the CPG-VP jet with  $S^{-1} = 5$ . For this case, no vortex coupling is observed.
- Movie 3b This animation shows the temporal evolution of the non-dimensional baroclinic torque for the LTE-T jet with  $S^{-1} = 10$ . For this case, periodic vortex coupling is observed.
- Movie 3c This animation shows the temporal evolution of the non-dimensional baroclinic torque for the LTE-T jet with  $S^{-1} = 15$ . For this case, pairs of closely travelling vortices are observed.