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Study of spatial growth of disturbances in an Incompressible Double Shear Layer flow configuration HARESHRAM NATARAJAN, CSRC-SanDiego, GUSTAAF JACOBS, SanDiego State University — The spatial growth of disturbance within the linear instability regime in an incompressible 2D double shear layer flow configuration is studied by performing a Direct Numerical Simulation. The motivation of this study is to characterize the effect of the presence of an additional shear layer on the spatial growth of a shear layer instability. Initially, a DNS of an incompressible single shear layer is performed and the spatial growth rate of various disturbance frequency modes are validated with Linear Stability Analysis. The addtional shear layer is found to impact the spatial growth rates of the different disturbances and the frequency of the mode with the maximum growth rate is found to be shifted.

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None

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