Investigation of Coherent Structures in an Adverse Pressure Gradient Turbulent Boundary Layer

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Aerospace Engineering Seminar
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Davis Hall 255 – 3:00pm

This seminar will present the background and motive for research into the adverse pressure gradient turbulent boundary layer. Even though much research to date has focused on turbulence and the turbulent boundary layer, there is still much to be learned about the structures in a turbulent boundary layer, specifically under an adverse pressure gradient. There is very little information about the alignment and spacing of the large-scale motions and hairpin vortex packets in the spanwise direction. This presentation will detail the purpose and planning for 2D PIV and 3D flow visualization trials on the turbulent boundary layer under three pressure gradients.