

Abstract Submitted  
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**Turbulence Structure and Wall Signature in Hypersonic Boundary Layer** YIN CHIU KAN, PINO MARTIN, University of Maryland, College Park — We will investigate the turbulence structure from direct numerical simulation (DNS) data of Mach 3 and Mach 7 turbulent boundary layers. In particular, we will use linear stochastic estimation to provide evidence of hairpin structures, examine the character of coherent structures statistically and instantaneously, as well as their wall signatures. In addition, we will use a spatio-temporal pattern finding process to track multiple packets evolutions concurrently.

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