Abstract Submitted
for the DFD12 Meeting of
The American Physical Society

**Direct numerical simulation of a hypersonic shock wave/turbulent boundary layer interaction**[1] STEPHAN PRIEBE, PINO MARTIN, University of Maryland — The direct numerical simulation of a hypersonic shock wave/turbulent boundary layer interaction generated by a 33-degree compression ramp is presented. The fully-turbulent inflow boundary layer is at Mach 7.2, and the Reynolds number based on momentum thickness is $Re_\theta = 3500$. The evolution of the mean and fluctuating field through the interaction region and the properties of the low-frequency unsteadiness are investigated.

[1]This research is supported by AFOSR Grant Number AF 9550-09-1-0464.

Pino Martin
University of Maryland

Date submitted: 09 Aug 2012 Electronic form version 1.4