

Abstract Submitted  
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**Analysis of Pedestal Transport**<sup>1</sup> J.D. CALLEN, U. Wisconsin-Madison, R.J. GROEBNER, T.H. OSBORNE, General Atomics, J.M. CANIK, L.W. OWEN, ORNL, A. PANKIN, T. RAFIG, Lehigh University, T.D. ROGNLIEN, LLNL, W.M. STACEY, Georgia Tech. — To clarify plasma transport properties in the pedestal, we have undertaken an H-mode Edge Pedestal (HEP) Benchmarking Exercise (BE) for a single DIII-D pedestal. Codes used include 1.5D interpretive (ONETWO, WMS), 1.5D predictive (ASTRA) and 2D (SOLPS, UEDGE) codes. The particular DIII-D discharge considered is 98889, which has a typical low density H-mode pedestal. Transport properties are analyzed in near transport equilibrium between Type I ELMs. Both 2D and 1.5D transport properties are obtained and compared. Inferred radial diffusivities are smallest near the midpoint of the pedestal, about  $0.1 - 0.3 \text{ m}^2/\text{s}$  for electron and ion heat but 10 times smaller for net particle transport. The small effective particle diffusivity could be the result of an inward particle pinch nearly balancing a diffusive outward radial particle flux. These and other pedestal plasma transport properties will be discussed.

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