Abstract Submitted for the OSS07 Meeting of The American Physical Society

Transport at MARFE Onset in TEXTOR: Implications for Hmode Threshold and Density Peaking FREDERICK KELLY, Unaffiliated — Analysis of TEXTOR power scan data, taken just before MARFE onset, shows an increase of the conductive heat flux from 40 to 60% as the NBI heating increases from 0.61 to 2.33 MW. The effective thermal diffusivity generally increases from 12 to 25 m<sup>2</sup>/s, while the convective velocity generally decreases from 50 to 25 m/s with increasing heating power. However, the convective velocity is anti-correlated with the line-average density suggesting a pinch effect. The pinch is explained in terms of SOL flows and implications for the H-mode threshold and density peaking are presented.

> Frederick Kelly Unaffiliated

Date submitted: 13 Apr 2007

Electronic form version 1.4