Abstract Submitted
for the DPP14 Meeting of
The American Physical Society

Extending the Capabilities of the Shoelace Antenna on Alcator C-Mod[1] T. GOLFINOPOULOS, B. LABOMBARD, R.R. PARKER, W. BURKE, E.M. DAVIS, R. GRANETZ, M. GREENWALD, J.W. HUGHES, J.H. IRBY, R. LECCACORVI, E.S. MARMAR, W. PARKIN, M. PORKOLAB, J.L. TERRY, R.F. VIEIRA, S.M. WOLFE, S. WUKITCH, MIT, ALCATOR C-MOD TEAM — The mission of the Shoelace antenna is to couple to short-wavelength edge fluctuations in order to study their properties, possible open- and closed-loop control, and potential exploitation to actively drive transport. The antenna matches both perpendicular wave number and frequency to two such fluctuations: the Weakly- and Quasi-Coherent modes, which regulate transport across the plasma boundary in high-performance, ELM-free, steady-state regimes. In initial operation, the antenna induced a drift-wave-like edge mode [Golfinopoulos *Phys. Plasmas* '14], but no measurements were available to assess resultant transport. Here, we present two upgrades to the system. The antenna's pitch angle was adjusted such that, when field-aligned, the antenna maps to the Mirror Langmuir Probe [LaBombard *Phys. Plasmas* '14], providing detailed fluctuation, profile, and transport measurements. In addition, antenna power has been quadrupled to $\geq$8 kW, increasing driven mode amplitude and reach up the pedestal.

[1]This work is supported by USDoE award DE-FC02-99ER54512.

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Date submitted: 11 Jul 2014 Electronic form version 1.4