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Sorting Category: 5.1.1.2 (Experimental)

Implementation of Reflectometry as a Standard Density Profile Diagnostic on DIII-D[1] ZENG L., E.J. DOYLE, W.A. PEEBLES, T.L. RHODES, UCLA, T.C. LUCE, General Atomics — The profile reflectometer system on DIII-D has been significantly upgraded in order to improve time coverage, data quality, and profile availability. Building upon previous successful systems utilizing continuous frequency modulated radar techniques, system performance has been improved as follows: (1) A new PC based data acquisition system has been installed. The higher sampling rate allows larger frequency sweep rates, thus improving profile accuracy by decreasing turbulence effects. The larger data record allows data collection throughout 5 s longdischarges. The data can also be obtained at variable sampling rates. (2) Availability of the data has been improved. Analyzed data is stored in the MDSplus database, and profiles are currently being made available within the 4-D profile fitting package. (3) The flexibility of the hardware system has been improved; the Q– (33–50 GHz) and V–band (50–75 GHz) reflectometer systems can be configured to use either O– or X–mode polarization. (4) The profile analysis code, rewritten in IDL, is now more robust. Routine analysis of profile data will be implemented soon.

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☐ Prefer Oral Session
☒ Prefer Poster Session

Special instructions: DIII-D Poster Session 2, immediately following RW Harvey

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