

**Abstract Submitted for the Forty-Seventh Annual  
Meeting  
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Category Number and Subject:

Theory       Experiment

**Robustness of RWM Feedback Performance in AT Plasmas,\***  
M. Okabayashi, R. Hatcher, H. Takahashi, *PPPL*, M.S. Chu, G.L. Jackson, R.J. La Haye, J.T. Scoville, E.J. Strait, *GA*, A.M. Garofalo, G.A. Navratil, H. Reimerdes, *Columbia U.*, Y. In, *FARTECH, Inc.* – High-speed actuators with frequency response of dc-40 kHz have been installed to upgrade the resistive wall mode (RWM) feedback capability in DIII-D. These actuators are configured to drive the DIII-D internal coil set (I-coils). The experimental observations qualitatively support that the voltage-controlled feedback does assist achieving long duration high beta plasmas. However, non-reproducibility of the RWM onset makes it harder to provide a quantitative measure of direct feedback and to separate the effects rotational stabilization. Possible causes of non-reproducibility are: (1) coupling to ELMs, (2) residual error field persisting even after the dynamic error field correction, (3) possible coupling of RWM, ELMs and residual error field. The experimental observations will be discussed in light of these possibilities along with MARS-F analysis.

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Oral       Poster