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Active Feedback Control of the Current-driven Resistive Wall Mode (RWM) in DIII-D,* Y. In, J.S. Kim, *FAR-TECH,* M.S. Chu, A.M. Garofalo, G.L. Jackson, R.J. La Haye, M.J. Schaffer, E.J. Strait, *GA,* M.J. Lanctot, H. Reimerdes, *Columbia U.,* Y.Q. Liu, *UKAEA,* L. Marrelli, P. Martin, *Consorzio RFX,* M. Okabayashi, *PPPL* — Recent DIII-D experiments show that complete RWM feedback stabilization requires good error field correction (EFC), yet the RWM feedback control could not be replaced by EFC. A systematic investigation of feedback response time confirmed that a bandwidth greater than the RWM growth rate is required for direct RWM stabilization. The optimized feedback gain of RWM feedback stabilization was ultimately determined by the minimal level of plasma fluctuations. The parametric dependencies observed for feedback control of current-driven RWMs are consistent with predictions based on pressure-driven RWM models. Additionally, there was an indication of the influence of a second-least stable RWM which had never been identified in experiments. The experimental details are being used to assess the RWM feedback models for prediction of RWM suppression in ITER.

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