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Status and Plans for the FLARE (Facility for Laboratory Reconnection Experiments) Project[1] H. JI, A. BHATTACHARJEE, S. PRAGER, Princeton U., W. DAUGHTON, LANL, S. BALE, UC-Berkeley, T. CARTER, N. CROCKER, UCLA, J. DRAKE, U. Maryland, J. EGEDAL, J. SARFF, J. WALLACE, U. Wisconsin, Y. CHEN, R. CUTLER, W. FOX, P. HEITZENROEDER, M. KALISH, J. JARA-ALMONTE, C. MYERS, Y. REN, M. YAMADA, J. YOO, PPPL — The FLARE device (flare.pppl.gov) is a new intermediate-scale plasma experiment under construction at Princeton to study magnetic reconnection in regimes directly relevant to space, solar, astrophysical, and fusion plasmas. The existing small-scale experiments have been focusing on the single X-line reconnection process either with small effective sizes or at low Lundquist numbers, but both of which are typically very large in natural and fusion plasmas. The design of the FLARE device is motivated to provide experimental access to the new regimes involving multiple X-lines, as guided by a reconnection "phase diagram" [Ji & Daughton, PoP (2011)]. Most of major components of the FLARE device have been designed and are under construction. The device will be assembled and installed in 2016, followed by commissioning and operation in 2017. The planned research on FLARE as a user facility will be discussed.

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Hantao Ji
Princeton University

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