

Abstract Submitted  
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**FLARE: a collaborative user facility to study magnetic reconnection and related phenomena**<sup>1</sup> H. JI, R. BELL, S. BENTIVEGNA, A. BHATTACHARJEE, A. CARPE, D. CORL, A. DIALLO, P. EFTHIMION, W. FOX, C. GENTILE, A. GOODMAN, L. HILL, F. HOFFMANN, J. JARA-ALMONTE, M. KALISH, T. KOZUB, B. LEBLANC, M. PODESTA, S. PRAGER, Y. REN, P. SLOBODA, M. YAMADA, J. YOO, PPPL, W. DAUGHTON, A. STANIER, LANL, THE FLARE TEAM — The FLARE device (Facility for Laboratory Reconnection Experiments; flare.pppl.gov) is a new experiment constructed at Princeton University for the study of magnetic reconnection in the multiple X-line regimes, directly relevant to space, solar, astrophysical, and fusion plasmas. The first plasma operation was successfully conducted to validate the engineering design and to demonstrate access to parameter space beyond its predecessor, MRX. Currently, the device is being relocated to PPPL while the power supplies are being upgraded to access new multiple X-line regimes in the reconnection phase diagram. A progress update including available diagnostics and the operation plan as a DoE collaborative user facility will be presented.

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