

Abstract Submitted
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Initial Operation of the Madison Plasma Dynamo Experiment¹

JOHN WALLACE, CAMI COLLINS, CARY FOREST, University of Wisconsin - Madison, MPDX TEAM — Operation of the Madison Plasma Dynamo Experiment (MPDX) has begun. This facility creates large, un-magnetized, fast flowing, hot plasma for investigating magnetic field self-generation and flow driven MHD instabilities. The experiment is 3 meters in diameter and utilizes a permanent magnet multicusp plasma confinement. Five 20KW magnetrons produce electron cyclotron heating for plasma generation. Eight lanthanum hexaboride (LaB₆) stirring rods and molybdenum anodes are inserted into the vessel to produce JxB flows. This poster will describe the operational status of the facility including laboratory infrastructure, stirring electrodes, RF sources, diagnostics, currently produced plasma parameters and future experimental system additions.

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