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Recent Progress on the magnetic turbulence experiment at the Bryn Mawr Plasma Laboratory D.A. SCHAFFNER, C.A. CARTAGENA-SANCHEZ, H.K. JOHNSON, L.E. FAHIM, C. FIEDLER-KAWAGUCHI, E. DOUGLAS-MANN, Bryn Mawr College — Recent progress is reported on the construction, implementation and testing of the magnetic turbulence experiment at the Bryn Mawr Plasma Laboratory (BMPL). The experiment at the BMPL consists of an ($\approx 300\ \mu s$) long coaxial plasma gun discharge that injects magnetic helicity into a flux-conserving chamber in a process akin to sustained slow-formation of spheromaks. A 24cm by 2m cylindrical chamber has been constructed with a high density axial port array to enable detailed simultaneous spatial measurements of magnetic and plasma fluctuations. Careful positioning of the magnetic structure produced by the three separately pulsed coils (one internal, two external) are preformed to optimize for continuous injection of turbulent magnetized plasma. High frequency calibration of magnetic probes is also underway using a power amplifier.

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