

Abstract Submitted  
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**Spatial and temporal spectral dependence of magnetic structures in a plasma wind tunnel**<sup>1</sup> JOSHUA CARLSON, DAVID SCHAFFNER, CARLOS CARTAGENA, Bryn Mawr College — Analysis of recent data obtained from the Bryn Mawr Magnetohydrodynamic Experiment (BMX) housed in the Bryn Mawr Plasma Laboratory (BMPL) is presented. The BMX investigates self-organized structures of magnetic field and plasma generated by a magnetized coaxial plasma gun source. These structures are discharged into a flux-conserving cylindrical wind tunnel after initial confinement within the gun region via a stuffing magnetic flux. Probes arranged along the z-axis of the tunnel measure fluctuations in magnetic field and time-delay estimated velocity as the structure moves through the system. Multipoint spectra measurements as a function of stuffing flux delay and spectral indices as a function of axial position are discussed.

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