

Abstract Submitted
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Multiple-Probe Excitation and Control of Low-Frequency Fluctuations in a Laboratory Magnetosphere¹ ALEXANDER BATTEY, MELISSA C. ABLER, MICHAEL MAUEL, Columbia University, COLLISIONLESS TERELLA EXPERIMENT TEAM² — Plasma confined by a magnetic dipole have both astrophysical and laboratory applications and exhibit complex flute-like low-frequency turbulence. In this poster, we present new experiments, conducted with the Collisionless Terella Experiment (CTX), where both single and dual electrodes are used to inject currents and drive electrostatic potentials. These probes are driven either open-loop, to excite waves, or closed-loop, to implement multiple-point feedback control of the plasma's interchange turbulence. Our measurements of interchange turbulence show that two probes with a 90 degree spatial separation are able to manipulate the interchange modes differently than a system using only one probe.

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