

Abstract Submitted
for the DPP09 Meeting of
The American Physical Society

Observing Pseudowaves in a Multi-Species Plasma using an Antenna/Receiver Setup¹ J.P. SHEEHAN, NOAH HERSHKOWITZ, University of Wisconsin - Madison — Ion bursts known as pseudowaves are created and detected in a low temperature ($T_e \approx 1\text{eV}$, $n_e \approx 10^8 \text{ cm}^{-3}$) plasma confined in a multi-dipole chamber. A negative-going square wave on a gridded antenna (14 cm diameter) is used to launch the pseudowaves in an argon/neon plasma. They are detected by a single-sided plate receiver (3.5 cm diameter) collecting ion saturation current. Results show the ability of this technique to create and observe pseudowaves in a multi-ion species plasma. Application in determining ion concentrations in a multi-ion species plasma is presented.

¹Work supported by U.S. DOE Grant No. DE-FG02-97ER54437.

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Date submitted: 16 Jul 2009

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