

Abstract Submitted
for the DPP11 Meeting of
The American Physical Society

Azimuthally Symmetric Radial Resonance near the Cyclotron Frequency in a Non-Neutral Ion Plasma WILLIAM HALL, BRYAN PETERSON, Brigham Young University — An experiment designed to measure radial $m=0$ plasma resonances near the cyclotron frequency in a boron ion plasma will be described. Plasmas are captured in a Malmberg-Penning trap with an axially symmetric magnetic field of nominally .22 Tesla. Captured plasmas generally measure 6-8 centimeters along the axis with 2 centimeter radii. Modes are excited through small AC perturbations on the confinement rings. Due to the short length of the plasma, the modes can be measured utilizing finite length effects of short cylindrical plasmas. The current status of the experiment will be discussed.

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Date submitted: 15 Jul 2011

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