

Abstract Submitted
for the 4CF11 Meeting of
The American Physical Society

Measuring Ion Bernstein Waves in a Non-Neutral, Finite Plasma

WILLIAM HALL, BRYAN PETERSON, Brigham Young University — The Plasma group at Brigham Young University has created a Malmberg-Penning trap used exclusively to catch non-neutral Ion plasmas. The captured plasmas present an opportunity to study Bernstein modes. These small radially symmetric waves, which oscillate near the Ion Cyclotron frequency, are difficult to detect experimentally, but the finite nature of plasmas in a Malmberg-Penning trap allow us to use end effects of our plasma to measure them. Methods of setup and measurement of these waves, and the current status of the experiment, will be discussed.

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Date submitted: 16 Sep 2011

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