

Abstract Submitted
for the DAMOP08 Meeting of
The American Physical Society

Early time dynamics of ultracold neutral plasmas¹ ADAM DENNING, SCOTT BERGESON, Brigham Young University — On the earliest time scales, disorder induced heating changes the ion velocity distribution. This is a response to the ion's local electric microfield. It has been shown that ion motion is ballistic on the potential landscape. We measure disorder induced heating rate at various densities and electron temperatures to probe to average microfield in these systems. Early results show greater accelerations than expected and also electron screening effects.

¹funded in part by NSF grant number PHY 0601699

Scott Bergeson
Brigham Young University

Date submitted: 15 Feb 2008

Electronic form version 1.4