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**Early time dynamics of ultracold neutral plasmas**¹ 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.

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