

Abstract Submitted
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Early Ultracold Plasma Expansion and Formation in a Weak Magnetic Field¹ TRUMAN WILSON, WEI-TING CHEN, JACOB ROBERTS, Colorado State University — The effects of a weak magnetic field on the formation and initial expansion rate of ultracold plasmas are reported. We observed an increase in the amount of electrons that escape during the initial formation when the Larmor radius of the electrons in the ultracold plasma approaches the spatial size of the plasma. This also corresponded to a radical increase in the initial expansion rate of the plasma. Observations of the late time expansion showed a deceleration of the expansion velocity under certain plasma conditions.

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