Abstract Submitted
for the DAMOP11 Meeting of
The American Physical Society

Ultracold plasma apparatus with moving magnetic trap atom transfer[1] TRUMAN WILSON, WEI-TING CHEN, JACOB ROBERTS, Colorado State University — One of the challenges in creating and trapping ultracold plasmas is that the requirements for effective initial cooling and trapping of atoms in a Magneto-optic Trap (MOT) are not the same as those that requirements entailed in the desired design of electrodes and fields to conduct ultracold plasma experiments. We report on our development of an apparatus that uses moving magnetic trap coils, like those developed in Bose- Einstein condenstaion experiments, to transport atoms from a MOT to an ionization region where flexible electric and magnetic fields can be applied.

[1]This work is supported by the Monfort Foundation and the AFOSR

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Date submitted: 04 Feb 2011 Electronic form version 1.4