

Abstract Submitted  
for the DAMOP17 Meeting of  
The American Physical Society

**Temperature measurements in a Yb/Ca dual-species ultracold neutral plasma**<sup>1</sup> TUCKER SPREngle, ADAM DODSON, SCOTT BERGESON, Brigham Young University — We report temperature measurement in an expanding dual-species Ca/Yb ultracold neutral plasma. This plasma is formed by sequentially ionizing Ca atoms and Yb atoms in a dual-species magneto-optical trap. We present measurements of the plasma temperature for a range of relative  $\text{Ca}^+/\text{Yb}^+$  densities and mixtures, and discuss our results in terms of dynamic shielding in this strongly-coupled Coulomb system.

<sup>1</sup>Funded in part by National Science Foundation grant PHY-1500376

Scott Bergeson  
Brigham Young University

Date submitted: 28 Jan 2017

Electronic form version 1.4