

Abstract Submitted  
for the 4CF09 Meeting of  
The American Physical Society

**Matter-Wave Interferometry at BYU** CHRISTOPHER ERICKSON, JAMES ARCHIBALD, BYU, DANIEL MERRILL, Purdue University, AARON BENNETT, DALLIN DURFEE, BYU — We report on the progress of two matter-wave interferometers at BYU. The first device is a thermal-beam Ramsey-Bordé calcium interferometer. The second device is an ion interferometer based on a laser-cooled  $^{87}\text{Sr}^+$  beam which will be split and recombined using stimulated Raman transitions. Design considerations, instrumentation development, and possible applications of the devices will be discussed.

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Date submitted: 22 Sep 2009

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