



# PHYSICS AND ASTRONOMY COLLOQUIUM

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### “Ultracold Polar Molecules”

#### Abstract

Gases of atoms cooled to temperatures near absolute zero can be used to experimentally investigate condensed matter phenomena in a clean and controllable system. We would like to extend this work to include ultracold gases of molecules, where new possibilities include gases with long-range interactions, ultracold chemistry, and new tools for manipulating and probing the system using the molecules' rotation and vibration. I will describe our experiments at JILA where we are creating and exploring an ultracold gas of KRb molecules.

Wednesday, November 18, 2015

3:00 p.m.

Elliott Building

Room 167