



PHYSICS AND ASTRONOMY COLLOQUIUM

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“Interactions between ultracold
atoms and hot surfaces”

Abstract

I will describe experiments utilizing Bose-Einstein condensates to probe the interactions between ultracold atoms and hot (i.e. room-temperature) surfaces. The effects studied include Johnson noise, adsorbates, and the Casimir-Polder force. I will discuss attempts to measure new thermal features of the Casimir-Polder force and lastly will describe how these measurements constrain the presence of hypothetical, exotic short-range forces.

Wednesday, February 15, 2006

3:30 p.m.

Elliott 061