

Abstract Submitted
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Interactions between Dipolar Molecules and Rubidium L PAUL PARAZZOLI, NOAH FITCH, DANIEL LOBSER, HEATHER LEWANDOWSKI, JILA/University of Colorado — The development of techniques to produce cold molecules has opened up the possibility to study molecular collisions in a new regime. The ability to control molecules externally allows researchers to investigate specific interactions between species by selecting particular states or orientations. In addition, by tuning the relative velocities, the collision energy can be controlled precisely. We are investigating the interactions of cold dipolar molecules with magnetically trapped rubidium atoms. Using Stark deceleration, we can very precisely control the velocity of the molecules, as well as select a particular internal state of the molecule for the interaction.

L Paul Parazzoli
JILA/University of Colorado

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