

Abstract Submitted
for the DAMOP12 Meeting of
The American Physical Society

Dynamics of strongly reactive molecules MICHAEL FOSS-FEIG, ANA MARIA REY, JILA, NIST, and University of Colorado at Boulder — As degenerate gases of ground-state polar molecules approach realization [1], it is increasingly important to understand the effects of lossy interactions on quantum simulations. We explore the dynamics of strongly reactive molecules in a variety of lattice geometries, and point out ways in which losses can be used as ideal probes of these systems. We further explore the use of losses as projective measurements onto entangled subspaces [2], and discuss realistic implementations of these ideas with ground-state molecules.

[1] A. Chotia et al., arXiv:1110.4420[physics.atom-ph] (2011)

[2] B. Kraus et al., Phys. Rev. A 78, 042307 (2008)

Michael Foss-Feig
JILA, NIST, and University of Colorado at Boulder

Date submitted: 27 Jan 2012

Electronic form version 1.4