

Abstract Submitted
for the DAMOP18 Meeting of
The American Physical Society

Restricted-basis-set calculations on atom-molecule collisions in external fields¹ TIMUR TSCHERBUL, MASATO MORITA, University of Nevada, Reno — Rigorous quantum scattering calculations on molecular collisions in external fields are computationally demanding due to the need to account for a large number of coupled channels. We show that by restricting the number of helicity states in the basis set, it is possible to obtain highly accurate quantum dynamical results for low-temperature atom-molecule collisions in a magnetic field at a reduced computational cost.

¹This work was supported by NSF Grant No. PHY-1607610.

Timur Tscherbul
University of Nevada, Reno

Date submitted: 26 Jan 2018

Electronic form version 1.4