

Abstract Submitted
for the DAMOP08 Meeting of
The American Physical Society

Differential Cross Sections for Electron-Impact Single and Double Ionization of Helium¹ MICHAEL S. PINDZOLA, JOHN A. LUDLOW, FRANCIS J. ROBICHEAUX, Auburn University, JAMES P. COLGAN, Los Alamos National Laboratory — Correlated quantal three-body and four-body dynamics are studied in the electron-impact single and double ionization of Helium. Calculations are made using non-perturbative 6D and 9D time-dependent close-coupling codes adapted for massively parallel computers. Theoretical calculations of triple differential cross sections for single ionization of Helium and pentuple differential cross sections for double ionization of He are compared with recent low-energy reaction microscope experiments.

¹The work was supported by the U.S. Department of Energy

Michael S. Pindzola
Auburn University

Date submitted: 01 Feb 2008

Electronic form version 1.4