

Abstract Submitted
for the DAMOP05 Meeting of
The American Physical Society

Alternative Representations for H in an Intense Laser Field¹ FATIMA ANIS, B.D. ESRY, J.R. Macdonald Laboratory, Department of Physics, Kansas State University — We will present calculations of hydrogen in an intense laser field. In particular, we will focus on alternative representations to examine their effectiveness for computing and understanding ionization. We solved the time-dependent Schrodinger equation using methods like finite differences and b-splines for the spatial degrees of freedom utilizing various coordinate systems. The prospects for application to multielectron atoms will be explored.

¹Supported by the Chemical Sciences, Geosciences and Bio sciences Division, Office of Basic Energy sciences, U.S Department of Energy.

Fatima Anis
J.R. Macdonald Laboratory, Department of Physics
Kansas State University

Date submitted: 01 Feb 2005

Electronic form version 1.4