

Abstract Submitted  
for the MAR07 Meeting of  
The American Physical Society

**Towards Modeling Coherent Control in Ab Initio Multiple Spawning Methods** TODD MARTINEZ, University of Illinois — Ab initio multiple spawning (AIMS) dynamics has been developed as a method to solve the nuclear and electronic Schrödinger equations simultaneously. In this talk, we present new extensions to the AIMS method which allow modeling light absorption with shaped laser pulses for the purposes of achieving coherent control. The new methods are tested on a variety of low-dimensional problems by comparison to numerically exact wavepacket dynamics.

Todd Martinez  
University of Illinois

Date submitted: 20 Nov 2006

Electronic form version 1.4