**PARALLELIZABLE ALGORITHMS FOR DESCRIBING THE EFFECTS OF STRONG TIME-DEPENDENT ELECTROMAGNETIC FIELDS ON THE HYDROGEN ATOM**

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We are testing a variety of methods to numerically treat the ionization of atomic hydrogen by a strong laser pulse. Besides providing high accuracy, the algorithms should be parallelizable in order to handle the sometimes long propagation times needed to solve the time-dependent Schrödinger equation for this fundamental strong-field problem. We report progress on developing a computer code that will make such calculations possible on massively parallel supercomputer platforms.