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Numerical studies of cross correlation analysis of excited states.¹ SPENCER WALKER, AGNIESZKA JARON-BECKER, ANDREAS BECKER, JILA and Department of Physics, University of Colorado, Boulder — In pump-probe experiments the pumping laser excites a quantum system to a linear combination of excited states before it is tested by a second probe pulse. Observables such as ionization measured at various relative delays can be used in order to gain information about excited states of these systems. We apply numerical solutions of the time-dependent Schrodinger equation using a basis state method to analyze such scenarios.

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