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Strong field coherent control of molecular ionization¹ BRIAN KAUFMAN, Stony Brook University, PHILIPP MARQUETAND, University of Vienna, TAMS ROZGONYI, Wigner Research Centre for Physics, THOMAS WEINACHT, Stony Brook University — We use shaped few cycle pulses to control the dynamics during strong field molecular ionization. By varying the optical phase in a pulse sequence we can control the final state of the molecule. The control relies on a subtle interplay between the optical phase and internal conversion dynamics which occur during the ionization process. We compare experiment and theory in order to interpret the laser driven coupled electronic and nuclear dynamics.

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