

Abstract Submitted  
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**Coincidence measurements of strong field molecular double ionization** CHUAN CHENG, Stony Brook University, SPIRIDOULA MATSIKA, Temple University, THOMAS WEINACHT, Stony Brook University — We use few cycle intense ultrafast laser pulses and coincidence velocity map imaging to investigate strong field double ionization in molecules. We use a time stamping camera to make vector momentum measurements of electrons and ions, allowing us to distinguish between multiple double ionization channels. Different double ionization channels which result in different fragment ion pairs show different electron correlation patterns, indicating that the double ionization dynamics are influenced by the orbitals from which the electrons are removed.

Chuan Cheng  
Stony Brook University

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