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Attosecond electron wave packets¹

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Attosecond electron wave packets are created when a train of extreme ultraviolet attosecond pulses is used to ionize an atom or molecule via one photon absorption. These novel wave packets differ in several useful ways from the temporally confined electron wave packets that are made via tunnel ionization. They can, for instance, be tailored for different applications by controlling the light field that generates the attosecond pulse train. In this talk we will describe how attosecond electron wave packets can be used to study the one photon ionization process via interferometry, and their application in the study and control of strong field processes in such as harmonic generation and above threshold ionization.

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