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Controlled double ionization of helium in ultrashort laser pulses[1]

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— We study the double ionization of helium in an ultrashort laser pulse by solving a three dimensional time-dependent Schrödinger equation. In our model, the laser field first ionizes one electron and subsequently rescatters it one or several times on the parent ion to cause double ionization. We revisit the dependence of double ionization on the laser parameters and discuss a scheme for controlling the double ionization yield.

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