Abstract Submitted
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IR-laser assisted XUV double ionization of helium[1] AIHUA LIU, Department of Physics, Kansas State University — We studied the few-XUV photon and multi (XUV+IR)-photon double ionization of helium by solving the time-dependent Schrödinger equation within a finite element discrete variable representation scheme. For the equal energy sharing, we discuss the joint angular distributions of the two emitted electrons for n-XUV photon double ionization with (for n=1) and without (for n=1,2,3) the presence of a short IR pulse. We find that the assisting IR pulse promotes side-by-side emission (both electrons are emitted along the linear laser polarization axis in the same directions) and enables the back-to-back emission (electrons are emitted in opposite directions along the laser polarization).

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