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Photoelectron momentum spectra for multiphoton ionization of Hydrogen atoms by intense laser pulses[1] SERGE OVCHINNIKOV, University of Tennessee, JOSEPH MACEK, University of Tennessee / ORNL — Full three-dimensional electron momentum distribution for multiphoton ionization of Hydrogen atoms by intense laser pulses are calculated by solving the time-dependent solutions of Schrödinger equation on a three-dimensional lattice in a scaled coordinate representation (CSLTDSE). This approach allows one to circumvent many difficulties related to the propagation of wave function to macroscopic distances.

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