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Development of Numerical Methods to Simulate Electron Diffraction in Real Time STEPHEN BLAMA, JIA-AN YAN, Towson University — Using Gaussian wave packet propagation, we present a numerical study of the ultrafast electron diffraction in real space and in real time. The time-dependent Schrodinger equation is solved using both Crank-Nicolson and Taylor expansion methods. Detailed results of the wave packet scattered by different one-dimensional and two-dimensional potential profiles will be presented.

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