

The numerical-detector method in atomic single ionizations

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In my talk, I will focus on our work that attacks a difficult issue in strong-field atomic physics that was identified in 2005 by Ivanov, Spanner and Smirnova. Our most recent results, using the numerical-detector method, aim to determine the longitudinal momentum of an ionizing electron without resort to the tunneling approximation. The detector method was first suggested by Feuerstein and Thumm in 2003. In cooperation with Xu Wang we have used it to determine tunneling delay times and initial momentum distributions near the tunneling exit region. I will make a brief review of these new results.

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