Abstract Submitted
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A semi-classical approach for solving the time-dependent Schrödinger equation in inhomogeneous electromagnetic fields[1] JIANXIONG LI, UWE THUMM, Kansas State University — To solve Schrödinger's equation in spatially inhomogeneous electromagnetic fields, we propose a semi-classical approach employing time-dependent WKB theory. This approach offers a fast and universal method to study electron dynamics in induced plasmonic fields near nanoparticles and nanostructures [1,2]. We scrutinize this method in first numerical applications to time-resolved photoemission spectroscopy from atoms and nanoparticles. [1] J. Li, E. Saydanzad, and U. Thumm, Phys. Rev. A **95**, 043423 (2017). [2] M. J. Ambrosio and U. Thumm, Phys. Rev. A **96**, 051403 (2017).

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