

Abstract Submitted
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Imaging plasmonic fields with atomic spatiotemporal resolution¹

JIANXIONG LI, ERFAN SAYDANZAD, UWE THUMM, Kansas State University — We propose a scheme for the reconstruction of plasmonic fields at isolated nanoparticles from infrared-streaked extreme-ultraviolet photoemission spectra. Based on quantum-mechanically modeled spectra [1,2], we demonstrate and analyze the accurate imaging of the IR-streaking-pulse-induced transient plasmonic fields at gold nanospheres with sub-femtosecond temporal and sub-nanometer spatial resolution [3]. [1] J. Li, E. Saydanzad, and U. Thumm, *Phys. Rev. A* **94**, 051401(R) (2016). [2] J. Li, E. Saydanzad, and U. Thumm, *Phys. Rev. A* **95**, 043423 (2017). [3] J. Li, E. Saydanzad, and U. Thumm, submitted.

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