

Abstract Submitted
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Attosecond interferometry on surfaces: Laser-assisted photoemission from Ag(111) and Au(111) by an XUV pulse train¹ MARCELO J. AMBROSIO, UWE THUMM, Kansas State University — Motivated by recent RABBITT experiments [1], we numerically investigated electron emission from metal surfaces by a pulse train of phase coherent attosecond XUV pulses into the assisting electric field of a time-delayed IR laser pulse. From the delay-dependent oscillations of the first-sideband-electron yields in our simulated spectra we deduced the atomic phases of the pulse train's higher harmonic components. These calculations allow us to extract physical properties of solid surfaces, as we numerically demonstrate for the Ag(111) and Au(111) surfaces targeted in [1], including photoemission from conduction-band and core-level electrons [2]. [1] R. Locher, L. Castiglioni, M. Lucchini, M. Greif, L. Gallmann, J. Osterwalder, M. Hengsberger and U. Keller, *Optica* **2**, 405 (2015). [2] C. H. Zhang and U. Thumm, *Phys. Rev. A* **80**, 032902 (2009).

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