

Abstract Submitted  
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**Attosecond relative delay among xenon 5p, 5s, and 4d photoionization.**<sup>1</sup> MAIA MAGRAKVELIDZE, University of Mary Washington, Fredericksburg, USA, MOHAMED MADJET, QEERI, Hamad Bin Khalifa University, Doha, Qatar, HIMADRI CHAKRABORTY, Northwest Missouri State University, Maryville, USA — Attosecond Wigner-Smith (WS) time delays of the photoemissions of Xe valence 5p, 5s, and core 4d electrons are investigated in details using the time-dependent local density approximation (TDLDA) [1]. Electron correlations determine the energy-dependent structures in ionization phases of the dipole channels and in the resulting WS delays at various shape resonances, induced by the collective motion of 4d electrons, and at various Cooper minima. We find that our calculation closely agrees with the streaking measurement [2] for the delay of 4d relative to 5s, and predicts accelerated emission of 5p with respect to 4d as was experimentally observed [3] at similar photon energies for Xe atoms adsorbed on the tungsten surface [4]. [1] Magrakvelidze et al, Phys. Rev. A 91, 063415 (2015). [2] Magrakvelidze et al, Phys. Rev. A 94, 013429 (2016). [3] Verhoef et al, CLEO:OSA Tech. Digest QF2C.4 (2013). [4] Neppel, Ph.D. Thesis, Tech. U Munich (2012).

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