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Observation of channel phase lag in asymmetric photoelectron angular distributions in the vicinity of autoionizing resonances<sup>1</sup> REKISHU YAMAZAKI, D.S. ELLIOTT, Purdue University — We report the results of channel phase lag measurements in the photoionization of atomic barium. We ionize the 6s6p <sup>1</sup>P<sub>1</sub> excited state via a coherent laser field consisting of two frequencies,  $\omega$  and  $2\omega$ , to excite the atom to an autoionizing resonance in the series converging on the  $5d_{5/2}$  threshold. We present the channel phase lag observed for the asymmetric angular distribution for different ionization product states at different locations of the autoionizing resonances.

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