

Abstract Submitted  
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**Femtosecond Electron Diffraction and Shadow Imaging**<sup>1</sup> DAVID MCPHERSON, UTEP, NHMFL, FSU — Using femtosecond electron pulses as an imaging tool, we can probe ultrafast dynamics by taking snapshots at different time delays. By using femtosecond electron diffraction (FED), we can examine structural dynamics at the atomic level in real time, and study the structure-function correlation. Additionally, femtosecond electron shadow imaging (FESI) can explore the dynamics of laser induced plasmas off the surfaces of conductors, semiconductors, and insulators. Project as part of a Research Experience for Undergraduates program funded by the National High Magnetic Field Laboratory, Florida State University and the National Science Foundation under supervision of Jianming Cao, PhD., Florida State University.

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