Lorentz-Violating Electromagnetostatics\textsuperscript{1} JOSHUA FOSTER, V.A. KOSTELECKY, Indiana University Bloomington, RALF LEHNERT, Indiana University Center for Spacetime Symmetries — The Standard-Model Extension (SME) is a general effective field theory for Lorentz and CPT violation incorporating both the Standard Model and General Relativity. The SME provides a framework for experimental searches for Lorentz violation and for the investigation of new physics. In the static limit of Lorentz-violating electrodynamics, unusual mixing of electrostatic and magnetostatic effects occur. This talk investigates some aspects of Lorentz-violating electromagnetostatics, emphasizing modifications to multipole expansions of conventional electrostatics.

\textsuperscript{1}This work primarily supported by the Summer 2014 REU Program in Physics at Indiana University.