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Lorentz-Violating Electromagnetostatics[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.

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