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A search for Lorentz violation in the CMB. MATTHEW MEWES, Marquette University, ALAN KOSTELECKY, Indiana University — Cosmic microwave background radiation provides an excellent opportunity for searches for vacuum birefringence. Rotation in the polarization of electromagnetic radiation is one consequence of birefringence and provides a signature for violations of Lorentz invariance. The extreme distances involved imply that tiny defects in propagation might accumulate to appreciable levels, yielding high sensitivities to possible Lorentz violations.

Matthew Mewes Marquette University

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