

Abstract Submitted  
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**Doppler-effect experiments and Lorentz symmetry** CHARLES  
LANE, Berry College — Within the context of the Lorentz-violating standard-model  
extension, I present preliminary results of a study of precision Doppler-effect experi-  
ments. While other types of experiments, such as clock-comparison and spin-torsion  
experiments, already provide sensitive tests of Lorentz symmetry in atomic systems,  
they do not cover all possible types of Lorentz-violating interactions. Doppler-effect  
experiments provide tests of some sectors of the standard-model extension that are  
unprobed by other classes of experiments. I present analysis of already-completed  
Doppler experiments from the Heidelberg Storage Ring.

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