

Abstract Submitted  
for the 4CS19 Meeting of  
The American Physical Society

**Testing for Lorentz Violation with Gravitational Waves<sup>1</sup>** KELLIE  
AULT-O'NEAL, Embry-Riddle Aeronautical University — LIGO-VIRGO GW data  
provides a new means of testing for Lorentz violations. We focus on the gravity sector  
of the SME, where a possible observable effect is birefringence: we would observe  
a small shift in the arrival times between the two gravitational wave polarizations  
from a distant source at the detectors.

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Date submitted: 17 Sep 2019

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