

Abstract Submitted
for the APR17 Meeting of
The American Physical Society

Theory-Agnostic Tests of GR with Multi-Band Gravitational Waves¹ NICOLAS YUNES, Montana State University, ENRICO BARAUSSE, Sorbonne Universites, KATHERINE CHAMBERLAIN, Montana State University — The aLIGO detection of the black-hole binary GW150914 opened a new era for testing General Relativity in extreme gravity. One generic feature that can be constrained is the emission of dipole gravitational radiation by compact binaries. This is excluded to high accuracy in binary pulsars, but entire classes of gravitational theories predict this effect in binaries predominantly (or only) involving black holes. In this talk, I will describe how future, joint observations of GW150914-like systems by aLIGO and eLISA will dramatically improve bounds on dipole emission from black-hole binaries, probing extreme gravity with unprecedented accuracy.

¹We acknowledge support from the NSF CAREER Grant PHY-1250636.

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Date submitted: 06 Sep 2016

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