BLACK HOLES IN DENSE STAR CLUSTERS Aspen Center for Physics 2015 Aspen Winter Conference January 17–22, 2015

TITLE: Gravitational Waves from Stellar Mass Black Holes in Extragalactic Globular Clusters

SPEAKER: Matthew Benacquista (UT Brownsville)

The dynamical evolution of globular clusters is expected to produce stellar mass binary black holes with higher total mass than found in the field population of binary black holes. These systems may be detectable at extragalactic distances that extend out to the Virgo cluster. I will discuss the prospects for their detection using space-based gravitational wave detectors and limits on their population from event rate upper limits determined by ground-based observations.