

Abstract Submitted
for the APR15 Meeting of
The American Physical Society

Search for Gravitational Waves from Nearby Globular Clusters

SANTIAGO CARIDE, University of Michigan–Ann Arbor, LIGO SCIENTIFIC COLLABORATION, VIRGO COLLABORATION — Although globular clusters in our galaxy are composed primarily of very old stars, there is evidence of young pulsar formation, suggesting that binary formation or collisions take place in these stellar-dense environments. Such events could lead to detectable continuous gravitational radiation from rapidly rotating young neutron stars or from older neutron stars perturbed by collisions with debris. A search for continuous gravitational waves from neutron stars in the nearby globular cluster NGC 6544 using LIGO S6 data, and making use of a new barycentric resampling algorithm that permits deeper searching via a longer coherence time, will be described.

Santiago Caride
University of Michigan–Ann Arbor

Date submitted: 09 Jan 2015

Electronic form version 1.4