

Abstract Submitted
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Search for Gravitational Waves From Nearby Globular Clusters

SANTIAGO CARIDE, University of Michigan, 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 collision with debris. A search for continuous gravitational waves from neutron stars in the neighboring globular cluster NGC 6544 has been undertaken using LIGO S6 data and a new barycentric resampling algorithm that permits deeper searching (a longer coherence time). The algorithm used will be described, and the current status of the search presented.

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