

Abstract Submitted
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First search for gravitational waves from the youngest known neutron star BENJAMIN OWEN, Penn State, LIGO SCIENTIFIC COLLABORATION — We present preliminary results of a search for continuous gravitational waves from the central compact object in supernova remnant Cassiopeia A. The object is the youngest suspected neutron star in the Galaxy. Its position and barycentric timing correction are precisely known, but no pulses are observed. Thus the search, of data from a twelve-day period of LIGO's fifth science run, covers the three-dimensional space of frequencies and first and second time derivatives. Preliminary upper limits on gravitational wave emission beat the indirect limit inferred from the age of the object over the frequency band 100–300 Hz.

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