

Searches for gravitational waves from nearby supernovae

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Formed after the collapse of a massive star and the following supernova explosion, supernova remnants hosting potential young neutron stars are ideal targets for searches for continuous gravitational waves.

Astronomical catalogues like the Green supernova catalogue and the online high-energy galactic supernova remnant catalogue (SNRcat), provide accurate information about the sky position of the central compact objects in supernova remnants, making it possible to perform directed searches for these targets, at a reduced computational cost. In this talk, I will review the results from supernova remnant searches using the latest data from LIGO and Virgo. Future search perspectives using new interferometric detector data and the possibility to include new targets will be discussed.

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Plenary talk

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