



LNGS SEMINARS

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Gravitational Waves from Mirror World

Abstract

Merger rates of binaries observed by LIGO/VIRGO gravitational wave detectors exceed numbers predicted by majority of models, also none of the events except one was accompanied by another type of radiation. We suggest that major LIGO/VIRGO signals emerged from the hidden mirror sector.

In the Mirror World scenario:

- (i) Number of binary systems is higher, since mirror matter is a candidate of dark matter with higher density;
- (ii) Binary merger rate is amplified, since mirror world is considered to be colder and star formation there started earlier;
- (iii) Non-detection of electromagnetic radiation is natural, because mirror particles do not interact with ordinary particles.

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LNGS - Room "B. Pontecorvo"

<https://agenda.infn.it/e/gogberashvili>