

# Origin and registration of gravitational waves in space and on the Earth

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Sources of gravitational waves in the Universe are considered: relicts from the inflational stage of the early universe; non-spherical collapse in the large-scale structure formation; non-spherical collapse in SN formation, and formation of supermassive black holes in AGN; merging of neutron stars and black holes in close binary systems. Registration of GW of different frequencies is possible in following experiments. Observation of a polarization in the CMB perturbations; observations of the correlated pulsar timing in the group of radio pulsars; timing of the radio pulsars in a close binary with a compact object: NS or BH; observations of the GW signal in the Earth laboratories. The registration of GW signals in the LIGO-VIRGO labs is discussed.

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