

Abstract

The LIGO-Virgo network of gravitational wave detectors has opened a new way of exploring the Universe: the recent multi-messenger observation of the coalescence of two neutron stars and its aftermath has been a scientific breakthrough. In this Colloquium the physics results obtained in about two years by LIGO, Virgo and their partners will be reviewed. Moreover, the history of these detectors will be outlined, and future prospects for the field will be addressed.