

# Entering the multi messenger area of Astronomy

*Tuesday, 9 April 2019 16:30 (25 minutes)*

Gravitational wave detectors have just finished two observative runs during which several events have been detected. Starting from the first detection, on September 14th 2015, a coalescence of binary black holes, an extensive follow-up of electromagnetic and neutrino detectors has been performed over the sky directions given by the gravitational wave reconstruction. After Virgo joined the run, the performances about the sky directions dramatically improved, allowing the furnish more feasible area in the sky for a joint search. The detection of the first binary neutron star on August 17th 2017, followed by the detection of a Gamma-Ray burst detection by FERMI and INTEGRAL, started the most extensive observational campaign involving more than a hundred telescopes. The presentation will give an overview over these milestones, focusing on the astrophysical implication of the results.

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