

The Detection of Gravitational Waves: toward a new era in astrophysics research



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**Laboratori Nazionali di Frascati
Auditorium Bruno Touschek**

After 100 years from the formulation of the theory of general relativity by Albert Einstein, gravitational waves have been finally observed on September 14, 2015 as a transient signal by the two detectors of the Laser Interferometer Gravitational-Wave Observatory, LIGO. In this mini-workshop the results by LIGO and VIRGO collaborations will be presented, together with a historical review of gravitational wave detectors. Future implications of gravitational waves observation in astrophysics will be also discussed.

Speaker: Guido Pizzella

- Birth and development of the experiments searching for gravitational waves

Speaker: Fulvio Ricci

- The direct detection of Gravitational waves

Speaker: Marica Branchesi

- GW150914: astrophysical implications and multi-messenger astronomy

Local Organizers:

Patrizia de Simone
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