



## INAF after GW150914

On February 11th 2016, the LIGO and Virgo Collaboration announced the detection of the first signal of gravitational waves from the cosmos, heralding a new era of exploration of the universe with far reaching consequences for astrophysics, cosmology and fundamental physics.

The source named GW150914 exhibits beautifully the expected signature of the inspiral, merger, and ringdown signal of two stellar-origin black holes.

In preparing for advanced detector operations, the LIGO Scientific Collaboration and Virgo Collaboration joined the astronomical community of experts in transient phenomena to develop an extensive program of electromagnetic follow-up of gravitational wave events. On April 4th 2014, INAF signed an MoU, recommended by the GRAWITA team. Shortly after GW150914 was identified as loud gravitational-wave transient, the alert spread out in the astrophysical community worldwide, triggering the first broad-band campaign in conjunction with the first gravitational wave event, and INAF was present in this effort.

On April 11th 2016

### INAF after GW150914 in a one-day meeting

Invited speakers will report on the discovery of GW150914, its astrophysical implications and the electromagnetic follow-up. A round table will follow that will bring scientists to a live discussion on the future of this new exciting branch of science. This will include the role of INAF in carrying out electromagnetic counterpart searches from ground, as well as, from space-based facilities, and INAF's contribution to the astrophysical understanding of GW150914, and of the new sources that will come. Members of Virgo and EGO will report on what is next in the gravitational wave research. ASI members will also participate in the meeting.

This meeting will be the first of a series aimed at developing further the collaboration between Virgo, EGO and LIGO and the astrophysical community.

**The meeting will take place in sala Cimino at the Monte Mario INAF headquarters, and it can be followed via *free-streaming*.**