

# Università degli Studi di Trieste

Dipartimento di Fisica  
INFN Sezione di Trieste  
Live-Streaming

## **European Gravitational Observatory (EGO)**

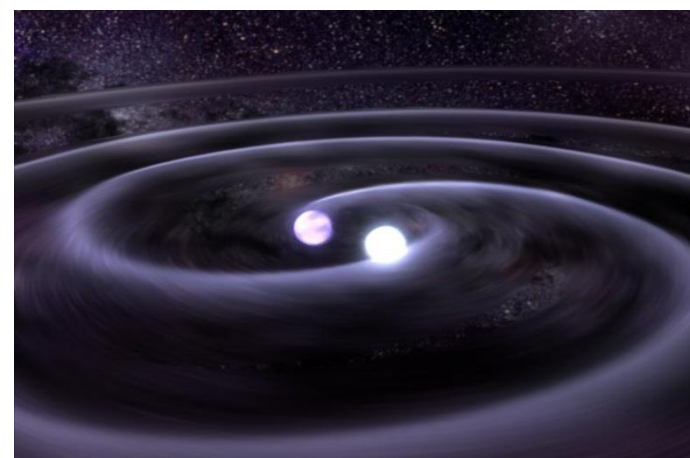
Via E. Amaldi, 56021 – Cascina, Santo Stefano a Macerata (Pisa) Building 4, Auditorium

Feb 11, 4.30 PM - Lecture room A, F building, Dip. di Fisica – via Valerio 2 – Trieste

## **An update on the search for gravitational waves**

100 years after Einstein predicted the existence of gravitational waves, the European Gravitational Observatory (EGO) and the VIRGO Collaboration (INFN) invite the scientific community at the EGO site in Cascina, Pisa (Italy) for an update on efforts to detect them.

Throughout history, humans have mainly relied on different forms of light to observe the universe. Today, we are on the edge of a new frontier in astronomy: gravitational wave astronomy. Gravitational waves carry information on the motions of objects in the universe. Since the universe was transparent to gravity moments after the Big Bang and long before light, gravitational waves will allow us to observe further back into the history of the universe than ever before. And since gravitational waves are not absorbed or reflected by the matter in the rest of the universe, we will be able to see them in the form in which they were created. Moreover, we will effectively be able to “see through” objects between Earth and the gravitational wave source. Most importantly, gravitational waves hold the potential of the unknown. Every time humans have opened new “eyes” on the universe, we have discovered something unexpected that revolutionized how we saw the universe and our place within it. Today, with the United States’ gravitational wave detector (LIGO) and its international partners, we are preparing to see the universe with a new set of eyes that do not depend on light.



Organizzazione a cura di: INFN, INFN Sezione di Trieste, A. Gregorio, E. Vesselli

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TRIESTE **fisica**



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**Everyone interested in the topic is welcome to attend**

Informazioni: [seminari@ts.infn.it](mailto:seminari@ts.infn.it)