



Contribution ID: 31

Type: Oral

## The Einstein Telescope, the next generation detector for gravitational-wave observation

*Friday, 21 June 2024 09:55 (25 minutes)*

The detection of Gravitational Waves (GWs) opened a new window on the Universe. The combined observation of GW and electromagnetic signals from astrophysical phenomena in 2017 signed the beginning of the Multi-messenger Astronomy.

While LIGO-Virgo-KAGRA Collaborations keep on detect GWs, a new generation of GW observatories is under preparation and will take over in the next decade, allowing to probe almost the entire Universe. The Einstein Telescope (ET) is the European project for the future GW detection.

An overview of the scientific objectives, the status of detector design, its technological challenges and the expected implications to the Gravitational Wave Astronomy progress will be presented.

**Primary author:** Prof. D'URSO, Domenico (University of Sassari and INFN)

**Presenter:** Prof. D'URSO, Domenico (University of Sassari and INFN)

**Session Classification:** Gravitational Waves

**Track Classification:** Gravitational Waves