Gravitational waves' detection
- the VIRGO interferometer

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Venue: Remote via Zoom Join (Meeting ID: 836 3070 9566, Password: 812691)
https://us02web.zoom.us/j/83630709566?pwd=VINJZG01dEhZbkY1Y2dXOEZqRTc1UT09
Host: Associate Professor David Wilkowski

Abstract

After 100 years since the prediction of their existence by Albert Einstein, gravitational waves have been finally measured by giant laser interferometers. The two LIGO detectors and Virgo have recently ended their third observation run. In this talk I will explain the working principle of the detectors by highlighting the contributions of our laboratory to the Virgo instrument. The detector performances and the foreseen upgrades will be illustrated. The recent results will be briefly discussed.

Short Biography

Margherita Turconi is currently associate professor at Université Côte d'Azur, Nice, France. She has worked on the Virgo project for four years as a member of Artemis laboratory.

She studied physics and optics at università degli studi dell'Insubria in Italy before receiving her PhD in experimental physics from Université de Nice in 2013 with a research work on nonlinear dynamics in coupled semiconductor lasers.

From 2013 to 2015 she joined the Artemis laboratory as a postdoc and worked on the laser source of the Virgo detector. Then she pursued research in ultrafast lasers and attosecond physics at CEA in Saclay (Paris). Since 2018 her research concerns the future and more powerful laser source for Virgo and nonlinear radiation-pressure effects inside the detector.

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