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The Sardinian site candidate to host the Einstein Telescope

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Einstein Telescope (ET) will be the European third-generation of gravitational wave interferometer. In Sardinia, the region around the former mine of Sos Enattos (Lula, Nuoro), is one of the sites candidates to host this new experiment. The site satisfies the scientific requirements mainly concerning geology, environmental and seismic noise. In this talk, an overview of the ongoing activities related to the characterization of the site will be given. The seismic campaign, on the surface and underground into the mine and in two boreholes, has already shown the low seismic noise of the region that reaches the Peterson's NLNM in a particular frequency range (2-20 Hz) important for ET. Close to the mine, a physics laboratory, the SarGrav laboratory, may host underground experiment, cryogenic payloads, low frequency and cryogenic sensors. SarGrav, with more than 900 square meters on the surface and some underground areas, already host a control room, an optical laboratory and different experimental areas for different sensors. Archimedes is the first fundamental physics experiment under installation at Sos Enattos. Its prototype, the most precise balance in the world, measured a seismic noise of the order of picoradiant in tilt, confirming the quality of the area as a candidate to host ET and the potentiality of the SarGrav Laboratory to test the ET prototype technologies.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

Einstein Telescope

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

Maybe

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