

11th Einstein Telescope Symposium



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CERN's vacuum technology for the Einstein Telescope

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CERN has competences in vacuum technology that can be useful for the Einstein Telescope (ET). Mechanical design, vacuum and electrodynamic simulation are regularly used and internally developed to support the early stage of conceptual design. In prototyping and production phase, surface treatments and coating are an important aspect of our activity. To assist studies and production, a large set of measurement techniques is operated, encompassing surface and chemical analysis. Measurement of functional vacuum properties is a core capability, from outgassing rate measurement, through thermal analysis, to pumping speed evaluation. Cost assessment and optimization are essential tasks when achieving large projects as the high-luminosity LHC and conceiving future accelerators.

Sharing our experience in design, prototyping, construction, and operation of large vacuum systems might be profitable for the ET study at different level, and perfectly in line with the recent Update of the European Strategy for Particle Physics which calls for strengthening of synergies 'in areas of common interest and mutual benefit'.

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Classification de Session: Site and Infrastructures