

The CLIC accelerator project status and plans

Thursday, 30 July 2020 08:40 (20 minutes)

The Compact Linear Collider (CLIC) collaboration has presented a project implementation plan for construction of a 380 GeV e+e- linear collider 'Higgs and top factory' that is upgradable in stages to 3 TeV. The CLIC concept is based on high-gradient normal-conducting accelerating structures operating at X-band (12 GHz) frequency. We present the CLIC accelerator concept and the latest status of the project design and performance goals. We report on high-power tests of X-band structures using test facilities across the collaboration, as well as CLIC system verification studies and the technical development of key components of the accelerator, and we present updated studies of the luminosity performance. We also present developments for application of the X-band technology to more compact accelerators for particle physics studies (e.g. Light Dark Matter Searches) and e.g. as X-ray FELs and in medicine. A rapidly increasing number of installations are taking the technology and opening up co-ordinated programmes for further industrial developments in the next phase of the project.

Secondary track (number)

Primary author: BURROWS, Philip Nicholas (University of Oxford (GB))

Presenter: BURROWS, Philip Nicholas (University of Oxford (GB))

Session Classification: Accelerator: Physics, Performance, and R&D for Future Facilities

Track Classification: 11. Accelerator: Physics, Performance, and R&D for Future Facilities