

# Compact Electron Linacs for Research, Medical, and Industrial Applications

*Friday 19 July 2024 09:00 (15 minutes)*

The CLIC study has developed compact, high gradient, and energy efficient acceleration units as building blocks for a future high-energy, electron-based linear collider. The components to construct such units are now generally available in industry and their properties promise cost effective solutions for making electron-based linacs (already a crucial technology in many research, medical, and industrial facilities) more efficient and more compact.

The CLIC study has actively promoted and supported spin-off developments since its beginning. Examples include beam manipulation and diagnostic in research linacs, including FEL light sources; compact inverse Compton scattering X-ray sources; medical linacs, including FLASH radiotherapy; and compact neutron sources for material investigations. This presentation will introduce the X-band technologies developed as part of the CLIC study and discuss examples of compact linacs utilising such technology for different applications.

## Alternate track

### I read the instructions above

Yes

**Authors:** WROE, Laurence Matthew (CERN); STAPNES, Steinar (CERN)

**Co-authors:** LATINA, Andrea (CERN); OLIVARES HERRADOR, Javier (Univ. of Valencia and CSIC (ES)); DOEBERT, Steffen (CERN); MUSAT, Vlad (University of Oxford); WUENSCH, Walter (CERN)

**Presenter:** WROE, Laurence Matthew (CERN)

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