



Contribution ID: 641 Contribution code: WEPL073

Type: **Poster Presentation**

The MAX-IV linac with variable bunch compressors

Wednesday, 10 May 2023 16:30 (2 hours)

Recent studies have shown that accelerating $+19^\circ$ off-crest in all RF cavities in the MAX-IV linac reduces voltage-induced timing jitter from the klystrons. The current bunch compressors in the linac have fixed first-order longitudinal dispersion, and the RF phase is varied to control the amount of compression. Variable bunch compressor designs have been considered at MAX-IV in recent years, these would allow us to regain control over compression while the accelerating phase is fixed to reduce timing jitter. Particle tracking studies have been performed on the MAX-IV linac with the addition of arc-like variable bunch compressors.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: DIXON, Adam (The University of Liverpool)

Co-authors: Dr WILLIAMS, Peter (Cockcroft Institute); THORIN, Sara (MAX IV Laboratory); CHARLES, Tessa (Cockcroft Institute)

Presenter: DIXON, Adam (The University of Liverpool)

Session Classification: Wednesday Poster Session

Track Classification: MC5: Beam Dynamics and EM Fields: MC5.D01: Beam Optics Lattices, Correction Schemes, Transport