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## The MAX-IV linac with variable bunch compressors

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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.

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## Footnotes

## I have read and accept the Privacy Policy Statement

Yes

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