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MAD-NG for final focus design

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The CLIC Beam Delivery System (BDS) transports the lepton beams from the exit of the Main Linac to the Interaction Point (IP). The Final Focus System (FFS) is the last part of the BDS and its role is to focus the beam to the required size at the IP and to cancel the chromaticity of the Final Doublet (FD). MAD-X and MAD-NG are simulation codes for beam dynamics and optics that are used for particle accelerator design and optimization. This paper presents a comparison between the two codes to achieve the best performance of the design of the FFS, including the optimization methods, the speed performance and the physics accuracy.

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Footnotes

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Yes

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