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Microbunching gain evaluation of bunch stretcher designs

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The planned Electron Ion Collider (EIC) has an Energy Recovery Linac (ERL) which provides Strong Hadron Cooling (SHC) in order to control the beam quality of the hadrons. This requires that the electron beam delivered to the cooling section be minimally perturbed by the preceding bunch stretcher necessary in the 100 GeV configuration. This paper evaluates different stretcher designs for the SHC ERL, based on current design requirements.

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Footnotes

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