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Combined wakefield and beam-beam effects in the EIC design

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Collective wakefield and beam-beam effects play an important role in accelerator design and operation. These effects can cause beam instability, emittance growth, and luminosity degradation, and warrant careful study during accelerator design. In this paper, we report on the development of a computational capability that combines both short and long range wakefield models and a strong-strong beam-beam simulation model. Applications to the EIC will be discussed.

Footnotes

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