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Lorentz violation in the quark sector

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The possibility that tiny violations of Lorentz invariance may occur in nature and be detectable with existing technology has been intensely pursued for over two decades. Despite there being no indication for Lorentz violation, many potential signatures, particularly in the QCD and electroweak sectors, remain critically unexamined. Recent theoretical work on Lorentz violation grounded in effective theory has produced an abundance of novel collider observables amenable to sidereal-time analyses. In this talk, I discuss the prospects for studying quark-sector operators contributing to deep inelastic scattering and the Drell-Yan process at existing and future colliders.

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No

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