

Leptoquark Pair Production at Future Colliders

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As new physics continues to evade detection at the LHC, proposals have been made for future colliders with the aim of extending the mass reach and improving sensitivity to physics beyond the standard model. The scalar leptoquark provides a particularly interesting new physics candidate. At tree-level, leptoquark-mediated transitions may account for the hints at lepton flavour universality violation observed by experiments such as Belle and LHCb. I will present estimates of the sensitivity of the high luminosity and high energy modes of the LHC and of a 100 TeV future circular collider to these leptoquarks, focusing on their pair production and decay into the dimuon dijet channel.

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