Particle Physics on the Plains 2024



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Neutrino Magnetic Moment at Colliders

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Heavy neutral leptons (HNLs), well-motivated beyond the Standard Model (SM) particles, can be produced at present and future collider facilities. HNL can interact with the SM sector via the transition magnetic moment. The transition magnetic moment can be well-constrained for higher HNL mass. In this talk, I will explore the parameter space for different colliders. I will present the production and decay channels of HNL. I will show the projected sensitivity for the magnetic moment in multiple proposed collider experiments. Finally, I will discuss the contrast between various channels and their degree of sensitivity.

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