

Future e+e- colliders as probes of hidden sectors via angular particle correlations

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Long-range angular particle correlations may serve as manifestations of physics beyond the Standard Model, such as Hidden Valley (HV) scenarios. We focus on QCD-like hidden sectors in which the production of HV matter on top of the QCD partonic cascade would enhance and enlarge azimuthal correlations of final-state particles. We study the observability of such signals at future e^+e^- colliders, which will provide a much cleaner environment with respect to the LHC. Specifically, the presence of ridge structures in the two-particle correlation function would indicate the possible existence of New Physics.

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