

UNIQUE R-PARITY VIOLATING SNEUTRINO EXCHANGE SIGNATURE AT ILC WITH POLARIZED BEAMS

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Numerous non-standard dynamics are described by contact-like effective interactions that can manifest themselves in electron-positron collisions only through deviations of the observables (cross sections, asymmetries) from the Standard Model predictions. If such a deviation were observed, it would be important to identify the actual source among the possible non-standard interactions as many different new physics scenarios may lead to very similar experimental signatures. We study the possibility of uniquely identifying the indirect effects of s-channel sneutrino exchange, as predicted by supersymmetric theories with R-parity violation, against other new physics scenarios in high-energy electron-positron annihilation into tau pairs at International linear collider.