Measuring neutrino dynamics via light higgsinos and sneutrinos

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Supersymmetry offers a portal to study neutrino physics via sneutrinos. I shall discuss a signature that can be only detected at an electron-positron collider, namely the production of a charged higgsino pair, one of them subsequently decaying to a charged lepton and a right-sneutrino LSP. This decay is rare, with a branching ratio $O(10^{-5})$ and hence the clean environment and fixed partonic collision energies are necessary. We show that we can get a signal down to Yukawa couplings below 10^{-6} , relevant for type-I seesaw mechanism at the electroweak scale.

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