

Neutralino Pair Production at the International Linear Collider

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In this article we studied the next-to-leading order (NLO) predictions for the neutralino pair production via photon-photon collisions at the International Linear Collider, focusing on the lightest neutralino is likely the lightest supersymmetric particle. The dependence of total NLO cross sections on the center-of-mass energy, on the M_2 - μ mass plane, on the squark mass, on the factorization and renormalization scales is comprehensively analyzed for three different scenarios in the Minimal Supersymmetric Standard Model and the Constrained Minimal Supersymmetric Standard Model.