

Use of tau polarization to discriminate between SUSY models and Determine SUSY parameters at ILC

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In many SUSY models the first SUSY signal in the proposed International Linear Collider is expected to come from the pair production of stau particles, followed by its decay into tau lepton plus lightest neutralino assumed to be the lightest supersymmetric particle. In our study a simple and robust method of measuring the polarization of this tau in its 1-prong hadronic decay channel, has been investigated. We discuss how it can be used to discriminate between SUSY models and to determine SUSY parameters.

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