

# Phenomenological Indications of the Scale of SUSY and Implications for the ILC

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Electroweak precision measurements can provide indirect information about the possible scale of supersymmetry already at the present level of accuracy. We perform a  $\chi^2$  fit in various SUSY scenarios including the W boson mass, the effective leptonic weak mixing angle, the anomalous magnetic moment of the muon, the decay  $b \rightarrow s \gamma$  and the lightest MSSM Higgs boson mass, taking also into account the Cold Dark Matter density. The investigated scenarios comprise the CMSSM, the VCMSSM (where  $A_0/m_0$  is fixed), Gravitino dark matter scenarios and the NUHM (where  $M_A$  and  $\mu$  are additional free parameters as compared to the CMSSM). In all the scenarios we map out the parameter regions preferred by the fit. The corresponding good prospects for the ILC are analyzed and discussed.

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