

# Determining the SUSY-QCD Yukawa coupling in a combined LHC/ILC analysis

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In order to establish supersymmetry at future colliders, it is not sufficient to discover new particles, but the identity of gauge couplings and the corresponding Yukawa couplings between gauginos, sfermions and fermions needs to be verified. In detailed studies it was found that the SUSY-Yukawa couplings of the electroweak sector can be studied with great precision at the ILC, but a similar analysis for the Yukawa coupling of the SUSY-QCD sector proves to be far more challenging. Here a first phenomenological study for determining this coupling is presented, using a method which combines information from LHC and ILC.

**Primary author:** Dr FREITAS, Ayres (University of Zurich)

**Co-author:** Dr SKANDS, Peter (Fermilab)

**Presenter:** Dr FREITAS, Ayres (University of Zurich)

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