Contribution ID: **576** Type: **Parallel session talk**

Probing GHU models at the ILC with di-quark AFB at c.m.e. above the Z mass

Friday 19 July 2024 09:00 (15 minutes)

We discuss the experimental prospects for measuring differential observables in b-quark and c-quark production at the International Linear Collider (ILC) baseline energies, 250 and 500 GeV.
The study is based on full simulation and reconstruction of the International Large Detector (ILD) concept.
Two gauge-Higgs unification models predicting new high-mass resonances beyond the Standard Model are discussed.
These models predict sizable deviations of the forward-backward observables at the ILC running above the Z mass and with longitudinally polarized electron and positron beams.
The ability of the ILC to probe these models via high-precision measurements of the forward-backward asymmetry is discussed.
Alternative scenarios at other energies and beam polarization schemes are also discussed, extrapolating the estimated uncertainties from the two baseline scenarios.

Alternate track

1. Beyond the Standard Model

I read the instructions above

Yes

Primary authors: IRLES, Adrian (IFIC CSIC/UV); SAIBEL, Andrej (Univ. of Valencia and CSIC (ES)); RICHARD, Francois; YAMAMOTO, Hitoshi (University of Tokyo); MARQUEZ HERNANDEZ, Jesus Pedro (Univ. of Valencia and CSIC (ES)); YAMATSU, Naoki (Kyushu University); POESCHL, Roman (Université Paris-Saclay (FR))

Presenter: SAIBEL, Andrej (Univ. of Valencia and CSIC (ES))

Session Classification: Top Quark and Electroweak Physics

Track Classification: 04. Top Quark and Electroweak Physics