Contribution ID: **131** Type: **talk**

Measurement of the properties of top quarks in decays (includes W polarization, top quark charge and couplings)

Saturday 25 July 2015 10:13 (18 minutes)

Several measurements of top quark properties in top quark decays are presented using data collected by the CMS experiment during the years 2011 and 2012. The polarization of W bosons in top quark decays is measured. The W-boson helicity fractions and angular asymmetries are extracted and limits on anomalous contributions to the Wtb vertex are determined. Furthermore, searches for flavor-changing neutral currents in top quark decays are presented using samples of top-quark pair event candidates decaying via Wb and Zq into lvb and llq events. The flavor contents in top-quark pair events are measured using the fraction of top quarks decaying into a W-boson and a b-quark relative to all top quark decays, R=BR(t->Wb)/Sum(BR(t->Wq)), and the result is used to determine the CKM matrix element Vtb as well as the width of the top quark resonance. The top-quark charge is measured, using the charge correlations between high-pT muons from W boson decays and soft muons from B-hadron decays in b jets.

Author: MEYER, Arnd (Rheinisch-Westfaelische Tech. Hoch. (DE))

Presenter: PIEDRA GOMEZ, Jonatan (Universidad de Cantabria (ES))

Session Classification: Top and Electroweak Physics

Track Classification: Top and Electroweak Physics