



Contribution ID: 22

Type: **Oral presentation**

## Single top quark production with CMS

*Tuesday, 29 April 2014 14:48 (24 minutes)*

Measurements of single top quark production are presented, performed using CMS data collected in 2011 and 2012 at centre-of-mass energies of 7 and 8 TeV. The cross sections for the electroweak production of single top quarks in the t-channel and in association with W-bosons is measured and the results are used to place constraints on the CKM matrix element  $V_{tb}$ . In the t-channel the ratio of top and anti-top production cross sections is determined and compared with predictions from different parton density distribution functions. Measurements of top quark properties in single top quark production are also presented. The results include the W-helicity in top quark decay and the searches for s-channel production and for anomalous couplings.

**Primary author:** GROTHE, Monika (University of Wisconsin (US))

**Presenter:** IORIO, Alberto Orso Maria (Universita e INFN (IT))

**Session Classification:** WG3+WG5 Joint Session

**Track Classification:** WG3+WG5 Joint Session