

ICHEP2012



Contribution ID: 634

Type: **Parallel Sessions**

## Studies of rare beauty and charm decays with the CMS experiment

*Friday 6 July 2012 15:00 (15 minutes)*

The rare decays  $B_s(B^0) \rightarrow \mu^+\mu^-$ ,  $B^0 \rightarrow K^*\mu^+\mu^-$  and  $D^0 \rightarrow \mu^+\mu^-$  are excellent tests of the flavor sector of the Standard Model and are sensitive to new physics. We report on studies of these decays performed with the CMS experiment using pp collisions data collected in 2011 at a centre-of-mass energy of 7 TeV.

We present the first observation of the excited B baryon  $\Xi_b^*$  in the strong decays to  $\Xi_b^-$  and a charged pion, performed with the CMS experiment at  $\sqrt{s}=7$  TeV. In addition, we present measurements of B hadron lifetimes.

**Primary author:** Mr ULMER, Keith (University of Colorado at Boulder (US))

**Presenter:** Mr ULMER, Keith (University of Colorado at Boulder (US))

**Session Classification:** Room 217 - Heavy Ion Collisions / B-Physics / CP Violation - TR5/7/9

**Track Classification:** Track 7. CP Violation, CKM, Rare Decays, Meson Spectroscopy