Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Measurement of heavy flavor decay electrons in proton-proton collisions at $\sqrt{s} = 7$ TeV IRAKLI MARTASHVILI, Univ of Tennessee, Knoxville, ALICE EXPERIMENT COLLABORATION — Charm and beauty quarks serve as probes of this hot and dense QCD matter produced, since they are formed in early stages of these collisions. A measurement of heavy flavor production in pp collisions serves as an essential baseline for a comparison to p-Pb and Pb-Pb collisions, as well as providing important tests of perturbative QCD calculations at the highest available energies. The ALICE experiment has several subdetectors capable of measuring heavy flavor via their decay products. The Electromagnetic Calorimeter (EMCal), Time Projection Chamber (TPC), Time of Flight detector and Transition Radiation Detector are used to identify electrons across a wide range of momenta and measure their yields and kinematic distributions. The EMCal is capable of measuring the energy deposited by electrons with high momenta, while the TPC provides electron identification up to 7 GeV/c and measurement of charged particle momenta with high precision. Moreover, the EMCal trigger enhances ALICE capabilities for selecting electrons at high transverse momenta. Details of the heavy flavor decay electron analysis at mid rapidity ($|\eta| < 0.7$) in pp collisions at $\sqrt{s} = 7$ TeV including electron transverse momentum spectra and event selection criteria will be presented.

Irakli Martashvili
Univ of Tennessee, Knoxville

Date submitted: 10 Jan 2014 Electronic form version 1.4