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Type: Oral Presentation

## Heavy-quark production vs multiplicity in small systems at LHC energies

*Tuesday, 4 July 2017 14:00 (20 minutes)*

Heavy quarks are produced in hard parton scatterings in the initial stages of hadronic collisions and are important tools for studying various aspects of QCD. Heavy-quark measurements as a function of multiplicity give insight into processes influencing their production in hadronic collisions at LHC energies. Also, they provide a way to test the possible influence of multi-parton interactions. Furthermore, the dependence of heavy-quark production on multiplicity is used to test QCD theoretical models.

The ALICE Collaboration has measured the production of heavy-flavour hadrons as a function of multiplicity in pp collisions at  $\sqrt{s} = 7$  TeV and in p-Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV. The measurements of heavy-quark production are performed via the hadronic and semi-leptonic decay channels at mid-rapidity and the multiplicity is measured at central and forward rapidity. The presentation will focus on the results obtained from these measurements and compare them to theoretical model calculations, where applicable

**Apply to be considered for a student award (Yes / No)?**

NO

**Level for award (Hons, MSc, PhD, N/A)?**

N/Z

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

NO

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**Session Classification:** Nuclear, Particle and Radiation Physics 2

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