

## The Electron Ion Collider User Group Meeting



Contribution ID: 42

Type: **not specified**

# What we have learned about Nuclear PDFs at the LHC

*Friday, 8 July 2016 16:05 (25 minutes)*

Nuclear PDFs are wonderful laboratories for cold QCD. They also provide an essential initial condition for understanding the evolution of the hot quark gluon matter produced in heavy ion collisions. Starting in November 2010 the ALICE, ATLAS and CMS experiments began studying lead-lead, proton-lead collisions and photon-lead collisions. In 2015 LHCb added its unique capabilities at high rapidity and a gas jet target to the effort to understand the high energy limit of QCD. The four experiments are now probing nuclear PDFs down to  $x$  values of  $10^{-5}$ . This talk will review what the proton-lead and photon-lead data have taught us and discuss their complementarity to future EIC measurements.

**Presenter:** MURRAY, Michael

**Session Classification:** Building on Lessons Learned (Phenomenology)