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## Measurement of quarkonia production in 5 TeV proton-proton and heavy-ion collisions with the ATLAS detector

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The in-medium suppression of heavy quarkonia production in heavy-ion collisions, with respect to proton-proton collisions, serves as a sensitive probe for studying the QGP. A full assessment of the suppression requires understanding effects present in the hot and dense medium in the A-A collisions as well as cold nuclear effects in the small-sized p+A collision. Based on proton-lead collision data collected in 2013 and proton-proton and lead-lead collision data collected in 2015 at the LHC, the ATLAS experiment can study  $J/\psi$ ,  $\psi(2S)$  and  $\Upsilon(nS)$  production via the di-muon decay channel. The charmonium states are separated into contributions from B-hadron decays and prompt production. The nuclear modification factors and excited-to-ground state ratios will be presented in intervals of transverse momentum, rapidity and centrality.

### Summary

### Presentation type

Oral

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