

Quarkonia measurements in 5 TeV 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 of hot and cold nuclear matter effects using A-A and smaller sized p-A collision systems, respectively. Based on proton-lead collision data collected in 2013 and proton-proton and lead-lead collision data collected in 2015 at the LHC, it is possible to study J/psi, psi(2S) and Upsilon(nS) production using the ATLAS detector. The charmonium states are further separated into contributions from B-hadron decays and prompt production to study effects of charmonium suppression for B-hadrons traversing the hot medium. Several measurements such as nuclear modification factors and excited-to-ground state ratios will be presented in this talk.

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