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## Investigating Hadron Production and the Onset of Color Glass Condensate in d-Au, p-Pb, Pb-Pb, and Xe-Xe Collisions at RHIC and LHC via an Analytical Solution to the BK Equation

An exact analytical solution to the nonlinear Balitsky-Kovchegov equation is proposed, requiring very few parameters to describe the nonlinearity of gluon evolution. Using this solution, along with the concept of color glass condensate, we achieve a good description of RHIC and LHC data on differential yields for d-Au, p-p, and p-Pb collisions. Quantitative predictions for nuclear modification factors in p-Pb, Pb-Pb, and Xe-Xe collisions relevant to LHC Run 2 are provided

## Field of contribution

Phenomenology

Author: Dr PHUKAN, Pragyan (Moran College)

**Co-authors:** Prof. JAYANTA KUMAR SARMA, Jayanta Kumar Sarma (Tezpur University); Mr RANJAN SAIKIA, Ranjan Saikia (Tezpur University)

Presenter: Dr PHUKAN, Pragyan (Moran College)

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