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Statistical and Thermal Models for Heavy Ion Collisions and Astrophysics

Relativistic heavy-ion collisions at high energies such as those at the Relativistic Heavy Ion Collider (RHIC), Brookhaven National Laboratory, Long Island, New York and at the Large Hadron Collider (LHC), CERN, Switzerland, Geneva produce new state of matter leading up to many new particles. One approach to understanding the properties of the produced hot and dense matter in these collisions is based on statistical thermodynamics. In this presentation we will show how using the knowledge of statistical thermodynamics from undergraduate physics one can describe the final stage of the evolution of heavy ion collisions. We will show this by comparing our theoretical calculations with data from heavy ion collider experiments.

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

No

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

N/A

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