



Contribution ID: 11

Type: Oral Presentation

Relativistic thermodynamics: transverse momentum distributions in high-energy physics

Friday, 13 July 2012 11:00 (20 minutes)

Abstract content
 (Max 300 words)

Transverse momentum distributions measured by the STAR and PHENIX collaborations at the Relativistic Heavy Ion Collider and by the ALICE, ATLAS and CMS collaborations at the Large Hadron Collider can be considered in the framework of relativistic thermodynamics using the Tsallis distribution. Theoretical issues are clarified concerning the thermodynamic consistency in the case of relativistic high energy quantum distributions. An improved form is proposed for describing the transverse momentum distribution and fits are presented together with estimates of the parameter q and the temperature T .

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No

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