

QM 2006 Abstract Administration-Supplement

Quark Matter 2006 Conf. - November 14-20, 2006, Shanghai - P. R. China

IV. Direct Photons, Dileptons and Vector Mesons

313. [Direct photon production in p+p and d+Au collisions at \$\sqrt{s_{NN}}=200\text{GeV}\$ from STAR](#) P1

V. Hadron Correlations and Fluctuations

314. [Long Range Multiplicity Correlations in the CGC](#) P1

VII. Low-x Parton Dynamics and Parton Saturation

315. [First correction to JIMWLK evolution from the classical EOMs](#) P2

IX. New Theoretical Developments

316. [\$J/\psi\$ hadron interaction in vacuum and in QGP](#) P2

Correction: The Abstract Number 162 titled 'Low mass dielectron measurements at J-PARC' Should be included on the 'Future experiments' session

IV. Direct Photons, Dileptons and Vector Mesons

313.

Direct photon production in p+p and d+Au collisions at $\sqrt{s_{NN}}=200\text{GeV}$ from STAR

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Direct photons are a very clean probe of the matter that is formed in heavy-ion collisions. They leave the medium without any further interaction and therefore allow for the study of the earliest stages of the collision. Direct photon production in p+p is a precision test of perturbative QCD and it can be used in d+Au to study initial state effects in the gold nucleus. Both are essential to interpret results in Au+Au collisions at RHIC.

We present a study of mid-rapidity direct photon production in d+Au and p+p collisions, obtained with the Barrel Electromagnetic Calorimeter in STAR. The measurements will be compared to a perturbative QCD calculation and the status of the analysis in the Au+Au dataset will be discussed.

V. Hadron Correlations and Fluctuations

314.

Long Range Multiplicity Correlations in the CGC

N. Armesto, with **J. L. Albacete** and **J. G. Milhano**

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We discuss forward-backward correlations in the multiplicity of produced particles in heavy ion collisions. We find the Color Glass Condensate generates distinctive predictions for the long range component of this correlation. In particular, we predict the growth of the long range correlation with the centrality of the collision. We argue that the correlation for mesons is stronger than that for baryons.

VII. Low-x Parton Dynamics and Parton Saturation

315.

First correction to JIMWLK evolution from the classical EOMs

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We calculate some $O(\alpha_s^2)$ corrections to the JIMWLK kernel in the framework of the light-cone wavefunction approach to the high energy limit of QCD. The contributions that we consider originate from higher order corrections in the strong coupling and in the density of the projectile to the solution of the classical EOM that determine the Weizsäcker-Williams fields of the projectile. We study the structure of these corrections in the dipole limit, showing that they are subleading in the large- N limit and that they cannot be fully recast in the form of dipole degrees of freedom, but rather present a complicated color structure.

IX. New Theoretical Developments

316.

J/ψ hadron interaction in vacuum and in QGP

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The dissociation cross section of J/ψ into open charm states by hadrons in the vacuum are investigated using the perturbative QCD. We have completed the Next to Leading order perturbative QCD calculation, which shows that there is a large 2nd order correction near the threshold, partly explaining the large discrepancies between the results based on LO perturbative QCD, first performed by Peskin, and effective hadronic model. Next, we discuss the dissociation cross section of J/ψ bound state above T_c , which according to recent lattice results seems to persist even up to $1.6 \times T_c$. The dominant contribution to the dissociation comes from the thermal gluons, while the effects due to thermal quarks are suppressed due to suppressed phase space. The relevance of this result is discussed in the context of RHIC and signature of QGP.
