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## Quark production in heavy ion collisions

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In this work we study the production of quarks and antiquarks in the early stages of heavy ion collisions, in the Color Glass Condensate framework. To this effect, we express the single inclusive quark spectrum in terms of a basis of mode functions of the Dirac equation in the presence of a classical color background field. In order to fully exploit the longitudinal boost invariance of this problem, we use a basis in which the mode functions are labelled by the Fourier conjugate  $\nu$  of the spatial rapidity. This choice has also the virtue of being suitable for a lattice implementation in which the rapidity  $\eta$  is used as longitudinal coordinate. We have derived analytic expressions for the initial value (at  $Q_s \tau_0 \ll 1$ ) of these mode functions, and based on them we will present preliminary results for the spectrum of produced quarks in the CGC.

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### **On behalf of collaboration:**

NONE

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