We will present the results of our ongoing analysis of particle production in d+Au collisions measured at RHIC. Our first results, submitted for publication [1] have generated great interest and are considered as indications for the formation of the Color Glass Condensate [2] at RHIC and its modification by quantum evolution as the rapidity of the detected particles approaches the deuteron fragmentation region[3].

Our first d+Au results concentrated on the study of production of unidentified charged particles measured with the Mid-rapidity spectrometer and the front section of the Forward spectrometer. This time, the analysis includes particle identification with time-of-flight and Cherenkov counters in both spectrometers, as well as higher momentum resolution at forward rapidities.

With the addition of particle identification we expect to be able to show a different behavior between baryons and mesons.

References

- [1] I. Arsene et al. Submitted to PRL nucl-ex/0403005.
- [2] L. McLerran and R. Venugopalan, Phys. Rev. D 49 (1994) 2233, 3352.
- [3] D. Kharzeev. Y. Kovchekov and L. Tuchin arXiv:hep-ph/0210332 v1.