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## Light Nuclei (d, t) Production in Au+Au Collisions at $\sqrt{s_{NN}} = 7.7 - 200$ GeV from the JAM model(学生报告)

### Summary

In high energy nuclear collisions, light nuclei production is sensitive to the baryon density fluctuations and thus can be used to study the QCD phase transition. For example, the neutron density fluctuation can be extracted from the yield ratio of proton, deuteron and triton,  $N_p N_t / N_d^2$ , which may provide a method to study critical phenomena in relativistic heavy-ion collisions.

In this talk, we will present measurements of (anti-)deuteron, triton, helium3 and alpha production in Au+Au collisions at  $\sqrt{s_{NN}} = 7.7, 11.5, 14.5, 19.6, 27, 39, 54.4, 62.4,$  and 200 GeV measured by the JAM model. We will show the energy dependence for the coalescence parameters  $B_2(d)$  and  $B_3(t)$ , particle ratios ( $d/p$ ,  $t/p$ , and  $t/d$ ), and the yield ratio of  $N_p N_t / N_d^2$ . Their physics implications will be discussed.

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