

Discussion February 17, 2010: Nuclear Lunch Seminar

What have we learned from the Relativistic Heavy Ion Collider?

1. What is rapidity? What is the difference between rapidity and pseudo-rapidity? (2Q)
(Nowo)
2. What is the meaning of a phase transition. What is the difference between a 1st order and a 2nd order phase transition? (4Q)
(Chen)
3. What is the Stephan-Boltzmann limit?
(Cody)
4. What are central collisions and what are grazing collisions, and how can they be distinguished?
(Paul)
5. What is hard QCD, and what is soft QCD?
(Harsha)
6. What is the color glass condensate? Why is the term “glass” used? What is its role in heavy ion collisions? (3Q)
(Jerry)
7. How does the QGP evolve with time?
(Daniel)
8. Why is it important to measure the transverse momentum as opposed to momentum in the direction of the beam?
(Anton)
9. Are the speeds of jets and individual hadrons emitted in a collision the same? Can one measure all particles in a jet separately? If yes, how? What properties of a jet can be measured? (2Q)
(Youngshin)
10. In Fig. 4b (Physics Today article), why is there no peak of blue points (Au-Au collision) at 180 degree (back to back jets) in the Star measurement and only a peak at 0 degree? (2Q)
(Dilu)

11. What is the interferometric technique developed by Hanbury-Brown and Twiss (HBT)? How is it used in Heavy Ion Collisions?
(Shloka)
12. What have we learned from RHIC?
(Anthony)