

Questions from Nuclear Lunch presentation, October 27, 2010

1. Why is it difficult to collect observational data on neutron stars? How do you know that what you're looking at is a neutron star? **Shamim**
2. How do we determine the relative distances at which different densities of the matter inside a neutron star occur? How does that affect the particles that occur in each "layer"? **Nowo**
3. What does a typical equation of state look like? What makes an EoS "hard" or "soft"? **Dilu**
4. What observable(s) confirms that we have the right Equation of State? **Youngshin**
5. How do you measure a neutron-star radius? **Daniel S.**
6. In what sense are the quarks discussed in this paper "cold"? **Cody**
7. Why is QCD non-perturbative in the regime of interest for neutron stars? **Anthony**
8. What is Cooper pairing? How is it related to Color-Flavour locking? **Azamat**
9. What is exotic matter? **Anton**
10. Please explain Figure 5 and what we can conclude from it. **Chen**
11. How does the renormalization scale affect the equation of state? **Harsha**
12. What is local & global charge neutrality and how do they affect the equation of state? **Sushil**
13. What is the "fermion sign problem"? **Bing**