

Questions on the spectroscopy of geoneutrinos

Discussion leader: Linda Hlophe

09/02/2015

1. What is a likelihood fit? (Mamun)
2. Why are geoneutrinos so important? (Sudhanva)
3. How does inverse β -decay differ from β -decay? (Bishnu)
4. In this article, how do the authors account for neutrino oscillations? How large are the effects of neutrino oscillations in this experiment? (Brian)
5. How is the global terrestrial power output measured (reference [14])? (Tyler)
6. How does Borexino measure solar neutrinos? Do solar neutrinos interfere with the measurement of geoneutrinos in this experiment? (Nadyah)
7. The energy spectrum (see Fig. 1 of Ref. [1] in the paper) drops off at particular energy values. Do these energies correspond to the E_{max} values similar to maximum back scatter of e^- Compton scattering? (Andrea)
8. What are the assumptions of the chondritic model? Why is the chondritic ratio useful in this paper? (Som)
9. There are 46 events (geoneutrinos) detected from 2007 to 2013. An additional 31 events was reported in this paper. Why was there a significant increase in the number of events in this short time period? (Abi)
10. The maximum energy E_{max} is given for each nucleus in the table presented by Giri. What are the factors that cause the energy to be less than E_{max} ? (Arbin)