

Interactive comment on “Geo-neutrinos” by L. Ludhova

L. Ludhova

livia.ludhova@mi.infn.it

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I agree to accept all comments.

In particular I suggest:

P. 543 line 22: At this point I am trying to stress that both neutrino and antineutrino have very low cross sections, so I suggest to change : " is of the order of 10^{-45} cm^2 ." to " is of the order of 10^{-44} cm^2 to 10^{-43} cm^2 ."

P.544 line 5: I suggest this change: " the flux of about $10^{10} \text{ cm}^{-2} \text{ s}^{-1}$ with energies below 11 MeV." to " the flux of about $10^{11} \text{ cm}^{-2} \text{ s}^{-1}$ with energies mostly below 15 MeV. since the hep flux should be very low I prefer to avoid mentioning 19 MeV.

P.545 line 8: I agree to remove this sentence: "In the two flavor approximation considering $\theta_{13} = 0$ the P_{ee} is increased by about 0.009."

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P.545 line 15: absolutely. Change: " $^{238}\text{U} \rightarrow ^{206}\text{Pb} + 8\alpha + 8e^- + 6\bar{\nu}_e + 51.7\text{MeV}$ " to " $^{238}\text{U} \rightarrow ^{206}\text{Pb} + 8\alpha + 6e^- + 6\bar{\nu}_e + 51.7\text{MeV}$ "

P.547, line 14: change: " $E_{\text{prompt}} = E_{\bar{\nu}_e} - 0.782 \text{ MeV}$." to " $E_{\text{prompt}} = E_{\bar{\nu}_e} - 0.784 \text{ MeV}$."

P.548, lines 27-28: change: "Borexino is placed on a continental crust while KamLand on oceanic crust." to "Borexino is placed on a continental crust while KamLand around a boundary of continental and oceanic crusts."

P.556: Change reference in caption of Fig.3: Instead of (?) use (Eguchi et al., 2003) and add this new reference among bibitems:

Eguchi, K. et al., KamLAND collaboration: First Results from KamLAND: Evidence for Reactor Anti-Neutrino Disappearance, *Phys. Rev. Lett.* **90** (2003) 021802.

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