Contribution ID: **12** Type: **not specified**

Relic neutrino detection using beta decaying nuclei

Monday 8 December 2008 16:40 (25 minutes)

We present a study on the interaction of low energy electron neutrinos on nuclei that undergo both beta decay and electron capture. We show that, due to the absence of an energy threshold and to the relatively high value of the cross section, these processes are the only ones to date having a realistic chance to unambiguously detect the yet undiscovered cosmological relic neutrino background.

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Session Classification: Relic Detection