

Estimation of atmospheric neutrinos background in Borexino

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Atmospheric neutrinos are produced in interactions of cosmic rays with atomic nuclei in the Earth's atmosphere. Although their flux is too low for studying in Borexino, atmospheric neutrinos act as a background for other processes. This talk presents the theoretical expected yield of atmospheric neutrinos in Borexino for three neutrino detection reactions: $\nu\mu$ -ES, νe -ES and inverse β -decay, as well as the status of Monte-Carlo simulation for other interaction channels. Calculations were performed based on the only currently known detailed model of atmospheric neutrinos flux at very low energies.

Presentation type

Section talk (10+5 min)

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