

Background study in RED-100 experiment

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RED-100 is a two phase emission LXe detector exposed at Kalinin NPP to study coherent elastic neutrino nucleus scattering (CEvNS) in a flux of reactor antineutrinos. Several campaigns were carried out to study external background at the detector location under the reactor core. During RED-100 data taking, continuous monitoring was organized in order to check the external background flux dependence on the reactor operational periods. The main background in the region of interest was caused by the spontaneous single electron noise inspired by the cosmic muons. Methods of the background study and recent results are presented in this poster.

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