

Prospects of the Neutrino-4 experiment on the search for sterile neutrino

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The Neutrino-4 collaboration plans to improve existing detector and to create new neutrino laboratory at reactor SM-3.

Equipment for the new neutrino laboratory at the SM-3 reactor is being prepared for implementation. Main part of the improving is new scintillator with higher gadolinium concentration and doped with DIN for pulse shape discrimination ability increase. Thus, a new detector larger volume will improve the accuracy of measuring the flux of reactor antineutrinos by 3.1 times.

After starting the PIK reactor at full power, the experiment will continue in Gatchina. For this, a preliminary design of another detector and a project for its placement on the PIK reactor are already being developed.

Primary authors: SEREBROV, A.P. (NRC "KI" Petersburg Institute of Nuclear Physics, Gatchina, Russia); SAMOILOV, R.M. (NRC "KI" Petersburg Institute of Nuclear Physics, Gatchina, Russia)

Presenter: SAMOILOV, R.M. (NRC "KI" Petersburg Institute of Nuclear Physics, Gatchina, Russia)

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