

## DETERMINATION OF PARAMETERS OF THE MODEL WITH THREE STERILE NEUTRINOS ON THE BASE OF EXPERIMENT BEST RESULTS

*Wednesday, 13 July 2022 16:20 (20 minutes)*

It is carried out evaluations of parameters values for the model with three active and three sterile neutrinos [1], namely, mixing parameters between active and sterile neutrinos and sterile neutrinos masses. When doing that, results of the BEST experiment (Baksan Experiment on Sterile Transitions) are used [2]. The BEST experiment intends to verification of the gallium anomaly at short distances, that is the deficit of electron neutrinos from radioactive sources. Besides it is taken into account experimental results concerning verification of accelerator [3] and reactor [4, 5] neutrino anomalies at short distances, as well some astrophysical data [6, 7].

1. V.V. Khruschov and S.V. Fomichev // Universe 8, 97 (2022).
2. V.V. Barinov et al. // arXiv: 2201.07364, PP. 1-25 (2022).
3. A.A. Aguilar-Arevalo et al. // Phys. Rev. D 103, 052002 (2021).
4. I. Alekseev et al. // Phys. Lett. B 787, 56 (2018).
5. A.P. Serebrov et al. // Phys. Rev. D 104, 032003 (2021).
6. A. Schneider // Phys. Rev. D 98, 063021 (2018).
7. A. Boyarsky et al. // Prog. Part. Nucl. Phys. 104, 1 (2019).

### The speaker is a student or young scientist

No

### Section

1. Neutrino physics and nuclear astrophysics

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