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Reanalysis of the of β-$\bar{\nu}_e$ angular correlation measurement aSPECT with new constraints on Fierz interference

Thursday 20 October 2022 12:30 (20 minutes)

The aSPECT collaboration published in 2020 the most precise value on the electron-antineutrino correlation coefficient $a = -0.10407(82)$ of neutron β-decay. Meanwhile we revised some systematic errors and re-analysed our data including the Fierz interference term b. We will present our new value for a, which only marginally differs from our previous published result together with the revision of some systematic errors. Further we will discuss our Fierz term result in the context of today most precise result on b from neutron β-decay published by the Perkeo III collaboration.

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