

## Appearance of tau neutrinos in the MINOS+ near detector due to the oscillations involving sterile neutrinos.

In the long-baseline neutrino experiments, an interesting signature of sterile neutrinos could be the anomalous appearance of tau neutrinos in the near detectors, not expected in case of three-flavour oscillations. The expected sensitivities in the  $(\sin^2 2\theta_{\mu\tau}, \Delta m_{41}^2)$  parameter space, based on full MINOS+ Monte Carlo simulation and reconstruction, for total statistics of MINOS+ experiment will be presented. Also, the perspectives for the future long-baseline experiments will be discussed.

### Authorship annotation

for the MINOS+ Collaboration

### Session and Location

Monday Session, Poster Wall #143 (Hölderlin-Room)

### Poster included in proceedings:

yes

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**Track Classification:** Poster (not participating in poster prize competition)