



Contribution ID: 21

Type: Talk

Towards the implementation of the ENUBET neutrino cross section experiment at CERN

Tuesday 27 August 2024 16:00 (20 minutes)

The NP06/ENUBET experiment concluded its ERC funded R&D program demonstrating that the monitoring of charged leptons from meson decays in an instrumented decay tunnel can constrain the systematics on the resulting neutrino flux to 1%, opening the way for a cross section measurement with unprecedented precision. The two milestones of this phase, the end-to-end simulation of a site independent beamline optimized for the DUNE energy range and the testbeam characterization of a large scale prototype of the tunnel instrumentation, will be discussed. We will also present studies for a site dependent implementation at CERN carried out in the framework of Physics Beyond Colliders. This work is based on a more efficient version of the beamline able to cover the HK energy region as well and will include radioprotection and civil engineering studies, with the goal of proposing a cross section experiment in the North Area with the two protoDUNEs as neutrino detectors, to be run after CERN LS3.

Is this an abstract from experimental collaboration?

Yes

Name of experiment and experimental site

NP06/ENUBET

Is the speaker for that presentation defined?

No

Details

N/A

Internet talk

Maybe

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