Neutrino group wish-list

1) Postdoc CNRS position (starting from October 2027)

Justification: to participate in the installation and commissioning of the timing system of the **Hyper-Kamiokande** (HK) experiment as well as in the calibration and analysis of the first data.

2) Budget request for T2K-upgrade in 2027

We would need about **10 kEuros** for maintenance of the upgraded ND280. About **70 kEuros** would be required for scientific trips to participate in the data-taking at J-PARC and T2K collaboration meetings.

3) Budget request for Hyper-Kamiokande in 2027

For the HK timing system we may need about **10 kEuros** for (shipment of?) equipment. About **100 kEuros** would be required for scientific trips to participate in the activities on-site (including construction shifts) as well as in the HK collaboration meetings.

T2K: faits marquants 2025

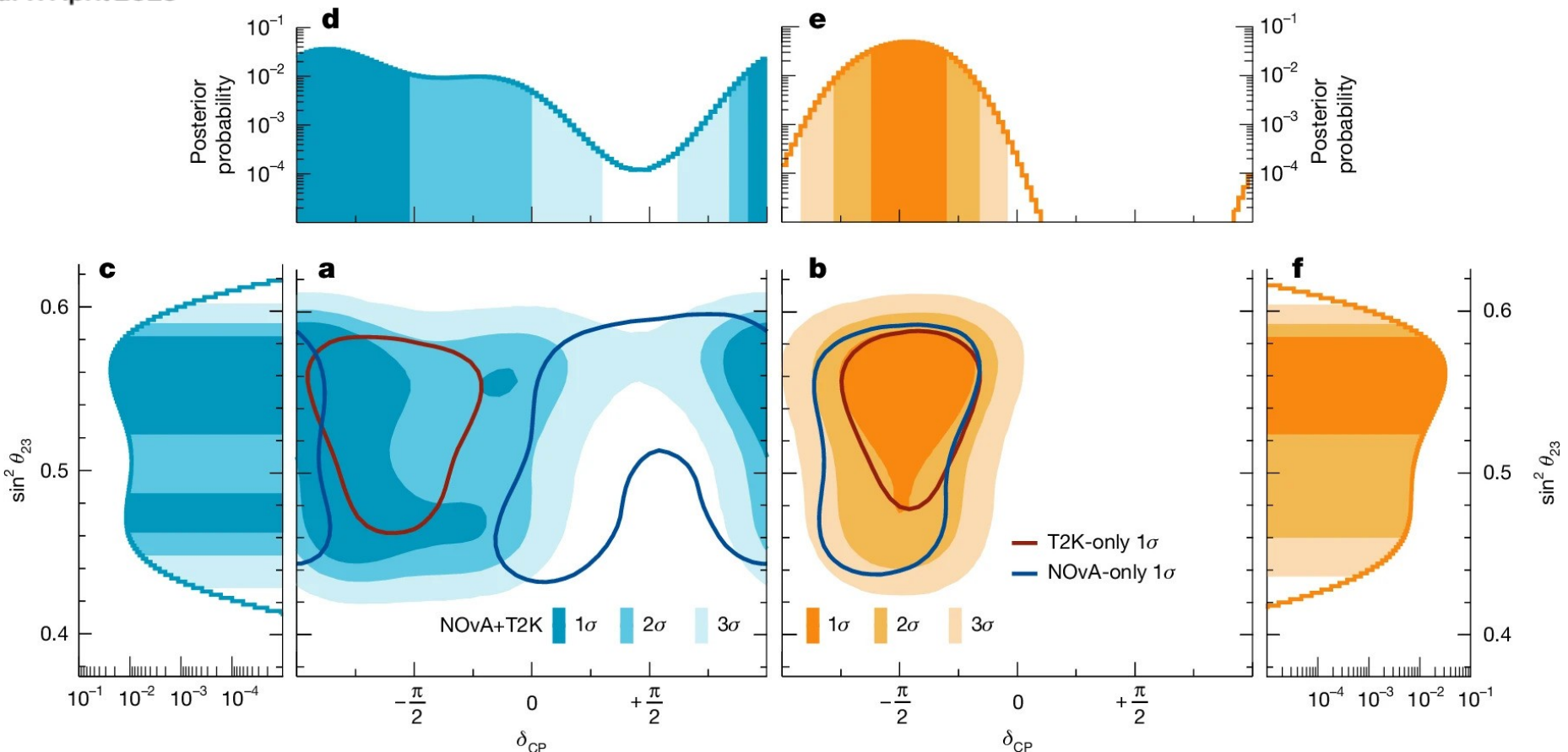
Article Published in Nature

Joint neutrino oscillation analysis from the T2K and NOvA experiments

https://doi.org/10.1038/s41586-025-09599-3

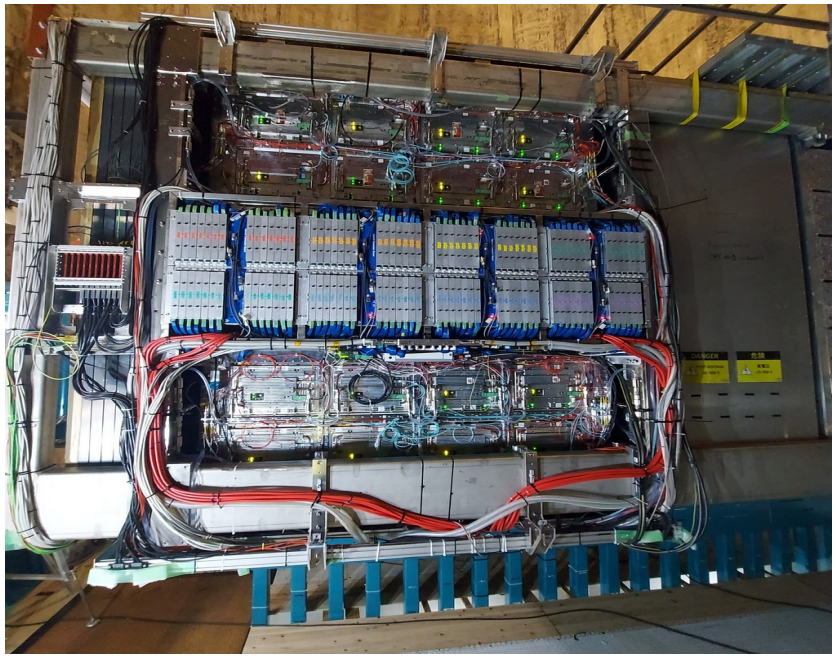
The NOvA Collaboration*✉ & The T2K Collaboration*✉

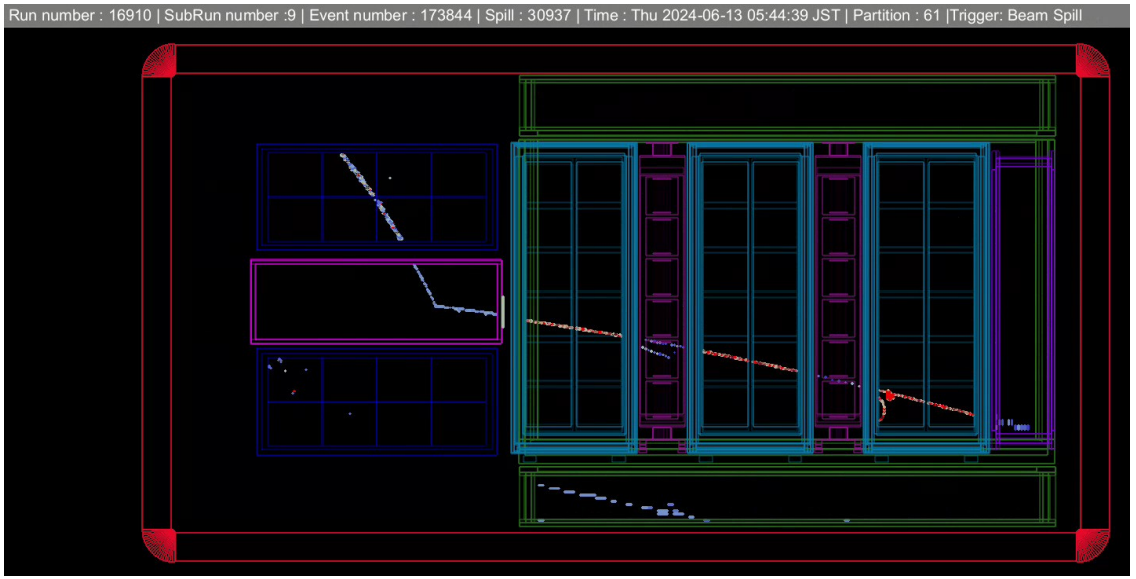
Received: 11 April 2025



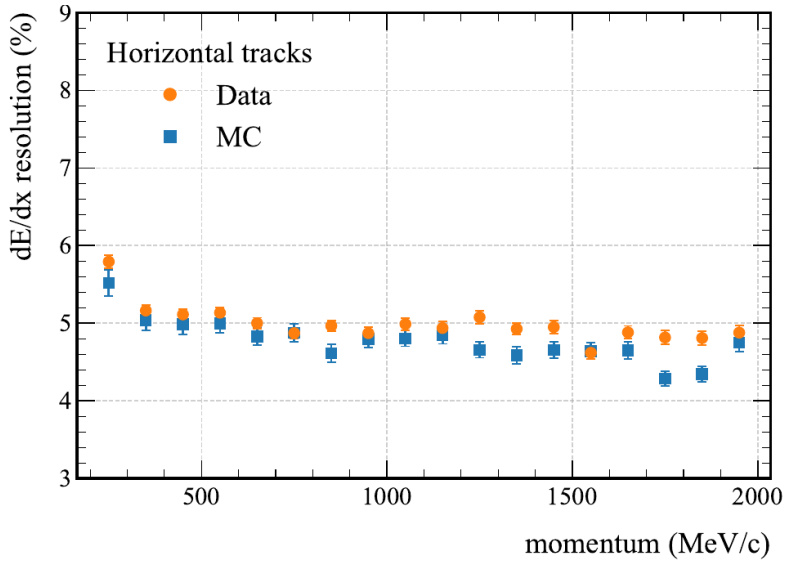
T2K: faits marquants 2025

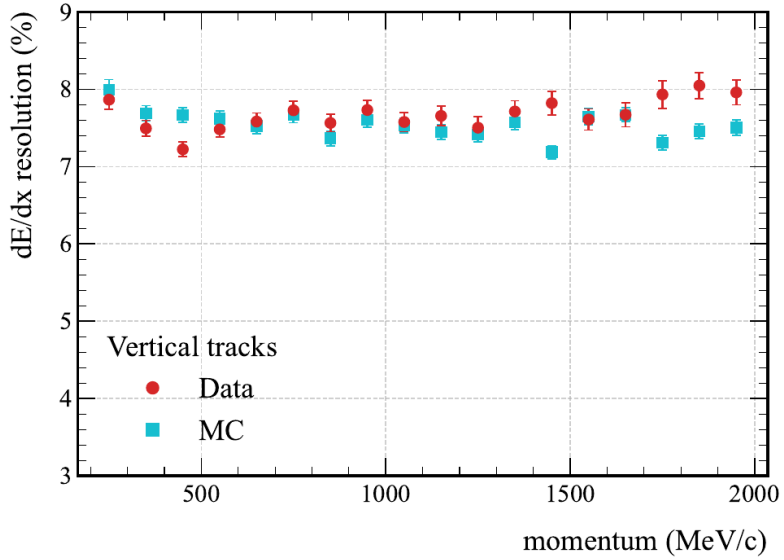
Successful T2K data-taking with the fully upgraded off-axis near detector ND280





Confirmed good performance of the new HA-TPC
(paper 2511.18650 [physics.ins-det] submitted to **NIM A**)





dE/dx resultion vs momentum for horizontal and vertical tracks in HA-TPCs

T2K/HK: faits marquants 2025

PHYSICAL REVIEW D **113,** 012006 (2026)

Implementation of the Martini-Ericson-Chanfray-Marteau RPA-based neutrino and antineutrino cross-section model in the GENIE neutrino event generator

L. Russo,[1,*] M. Martini,[2,1,†] S. Dolan,[3] L. Munteanu,[3] B. Popov,[1] and C. Giganti[1]

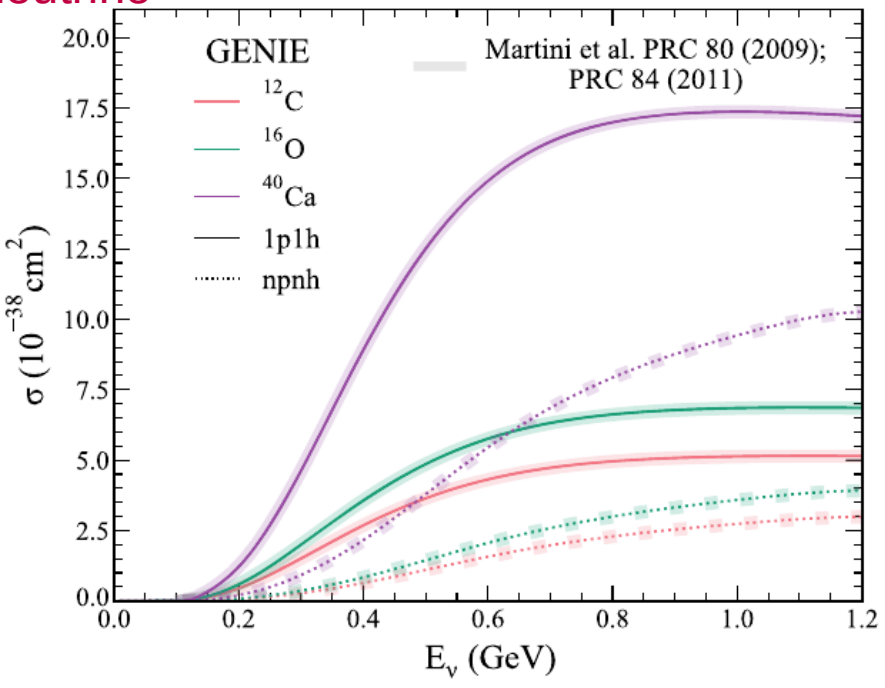
[1]*Sorbonne Université, CNRS/IN2P3, Laboratoire de Physique Nucléaire et de Hautes Energies (LPNHE), Paris, France*

[2]*IPSA-DRII, 63 boulevard de Brandebourg, 94200 Ivry-sur-Seine, France*

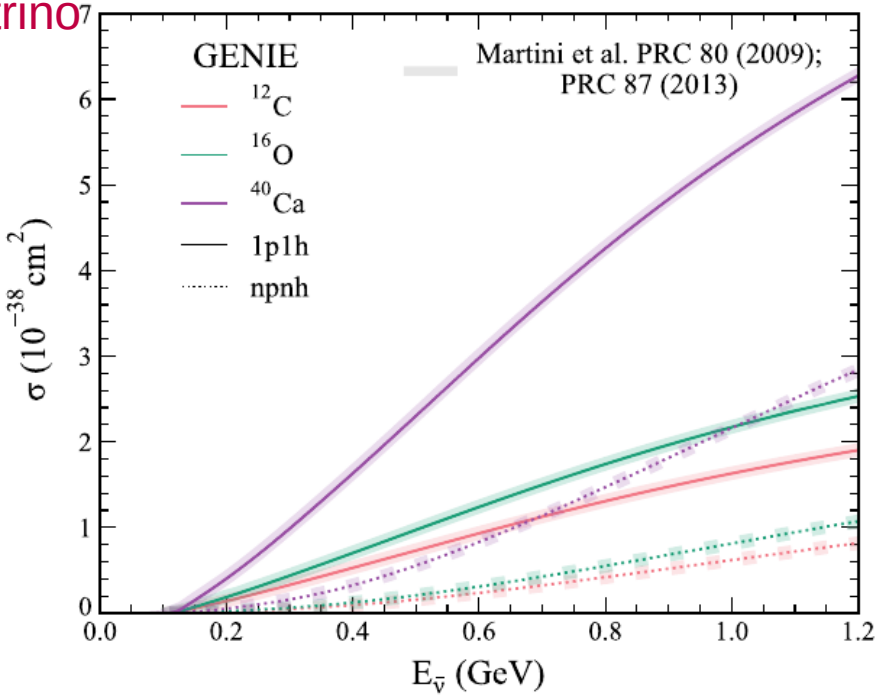
[3]*CERN, European Organization for Nuclear Research, Geneva, Switzerland*

(Received 22 August 2025; accepted 9 December 2025; published 13 January 2026)

neutrino



antineutrino



HK: faits marquants 2025

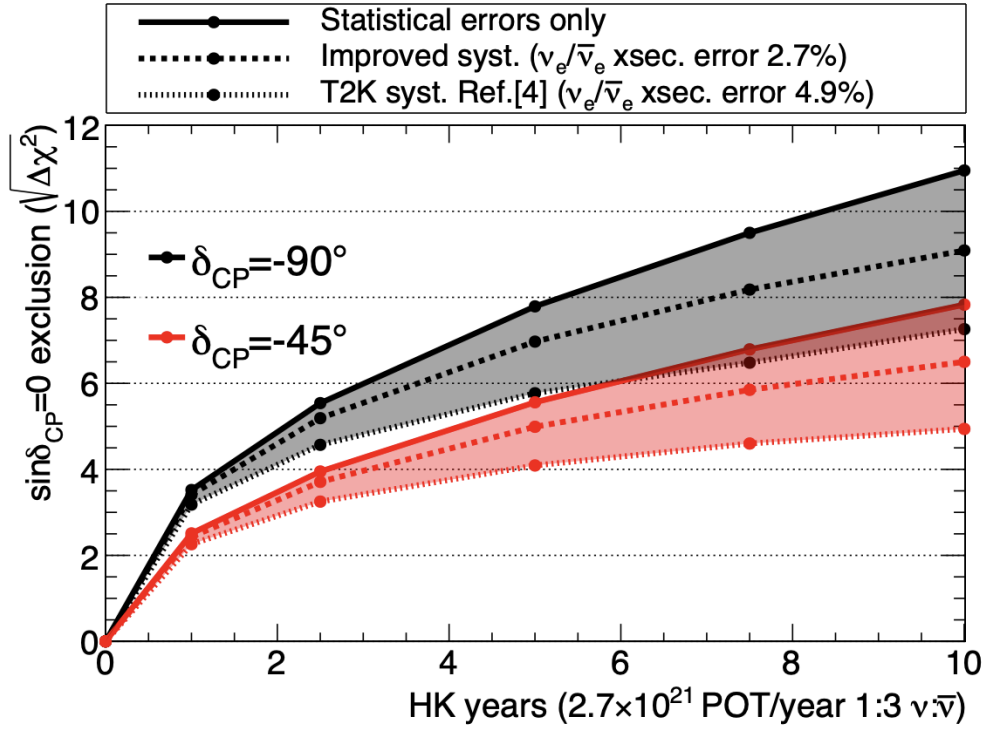
Construction of the HK covern finalized during Summer 2025

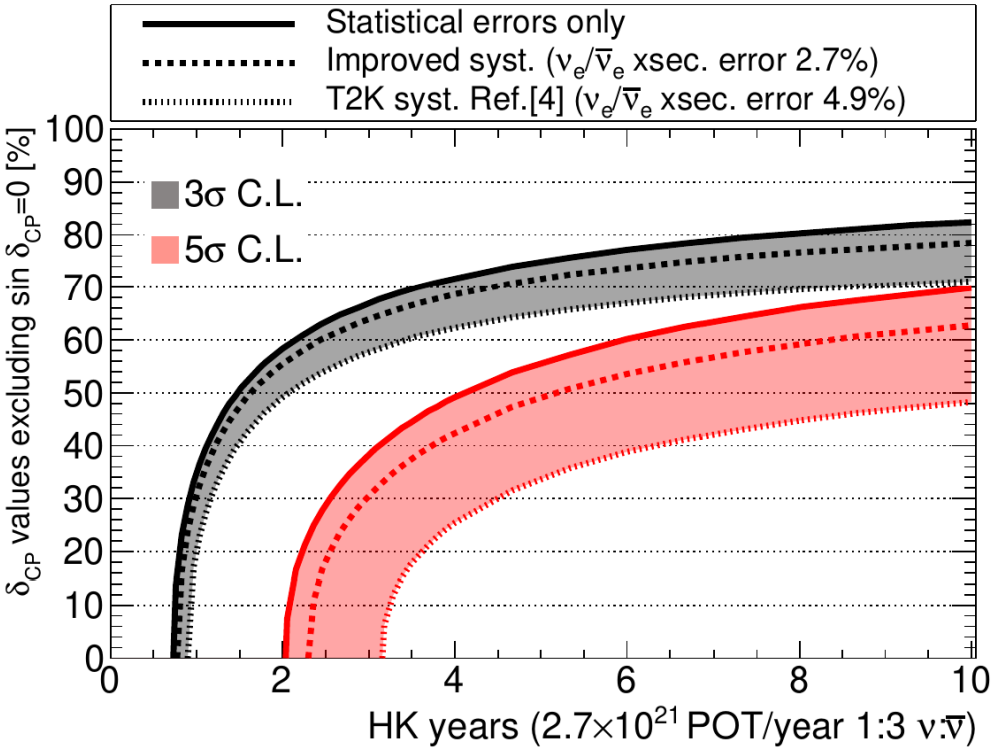
HK: faits marquants 2025

Eur. Phys. J. C manuscript No.
(will be inserted by the editor)

Updated HK sensitivity studies for neutrino oscillation parameters (to be published in EPJ C)

Sensitivity of the Hyper-Kamiokande experiment to neutrino oscillation parameters using accelerator neutrinos





HK: faits marquants 2025

Nuclear Instruments and Methods in Physics Research A 1075 (2025) 170358

Contents lists available at ScienceDirect

Nuclear Inst. and Methods in Physics Research, A

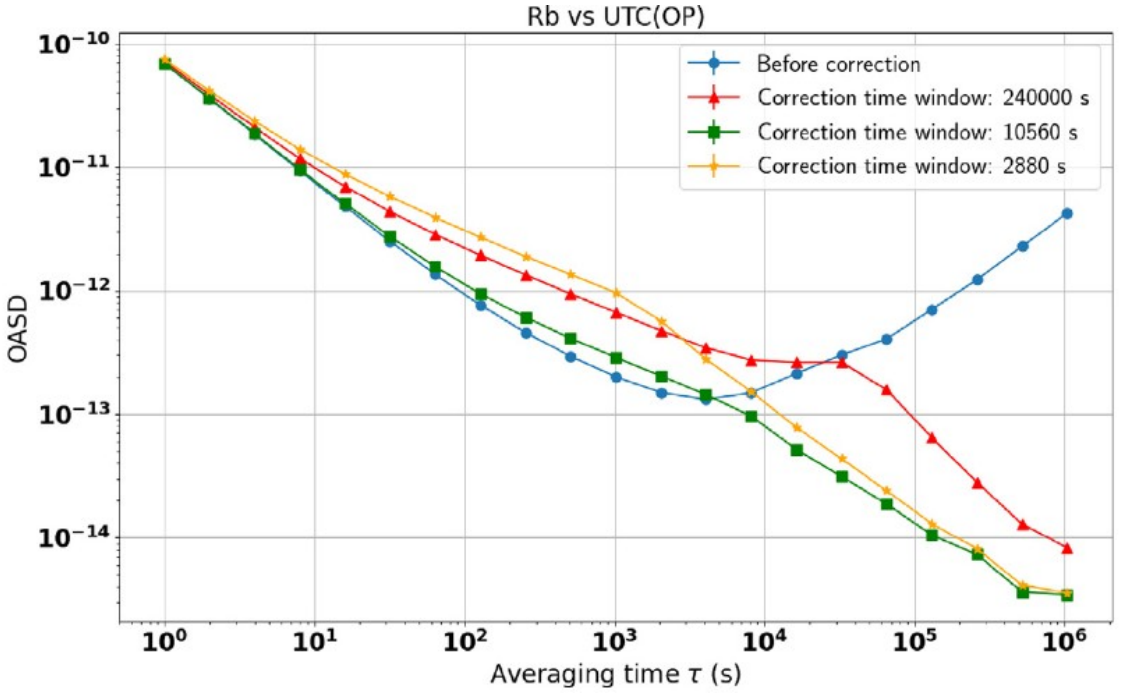
journal homepage: www.elsevier.com/locate/nima

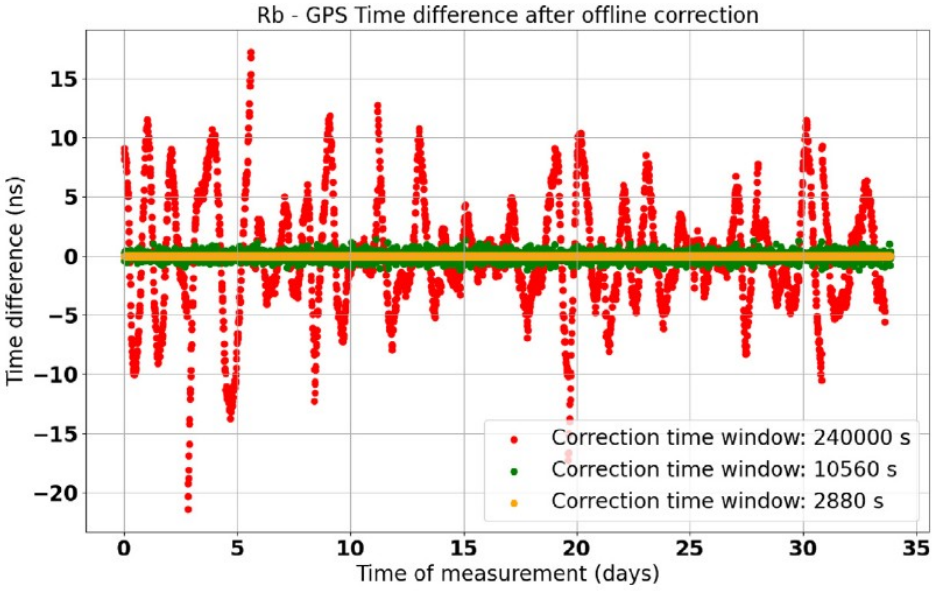
Full Length Article

Precise synchronization of a free-running Rubidium atomic clock with GPS Time for applications in experimental particle physics

Claire Dalmazzone [a], Mathieu Guigue [a], Lucile Mellet [a,1], Boris Popov [a], Stefano Russo [a], Vincent Voisin [a], Michel Abgrall [b], Baptiste Chupin [b], Caroline B. Lim [b], Paul-Éric Pottie [b], Pierre Ulrich [b]

[a] Laboratoire de Physique Nucléaire et des Hautes Energies (LPNHE), Sorbonne Université, CNRS/IN2P3, 4 place Jussieu, Paris, 75005, France
[b] LNE-SYRTE, Observatoire de Paris, Université PSL, CNRS, Sorbonne Université, 61 avenue de l'Observatoire, Paris, 75014, France



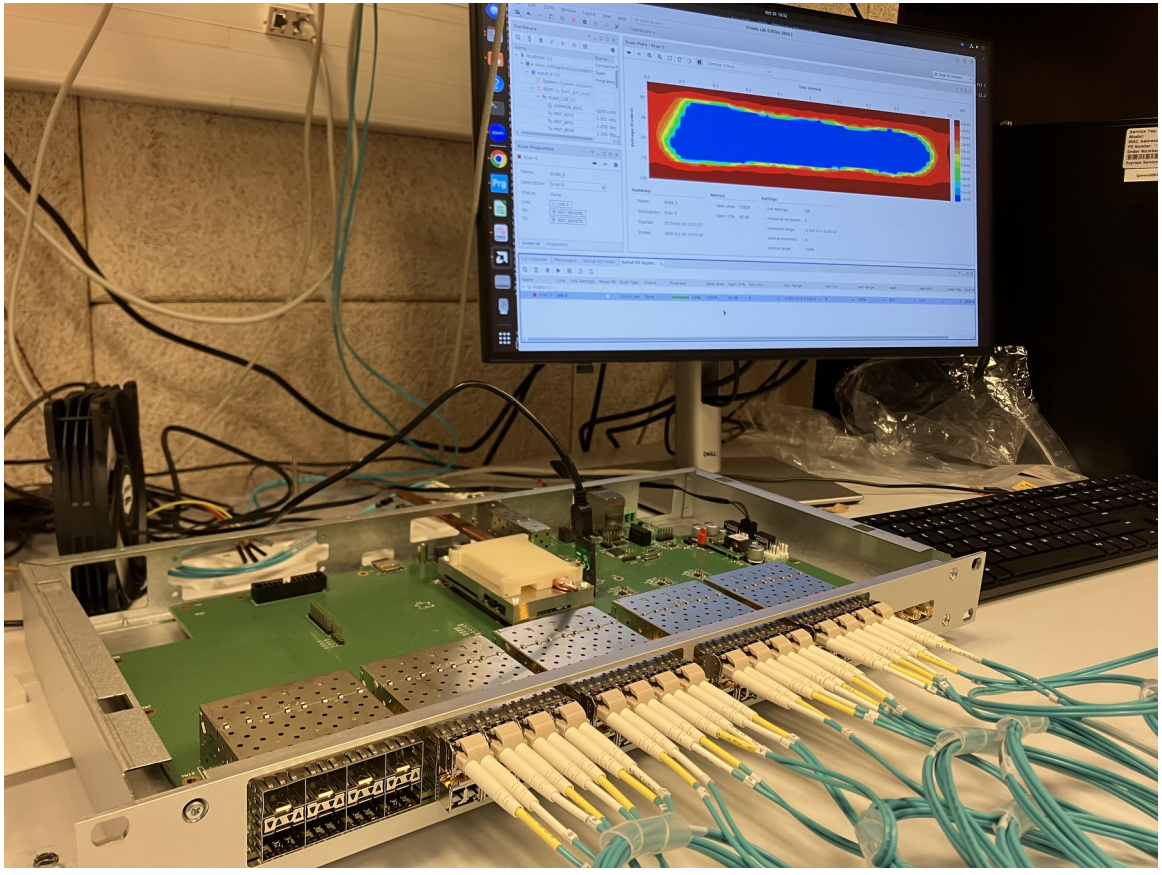


HK: faits marquants 2025

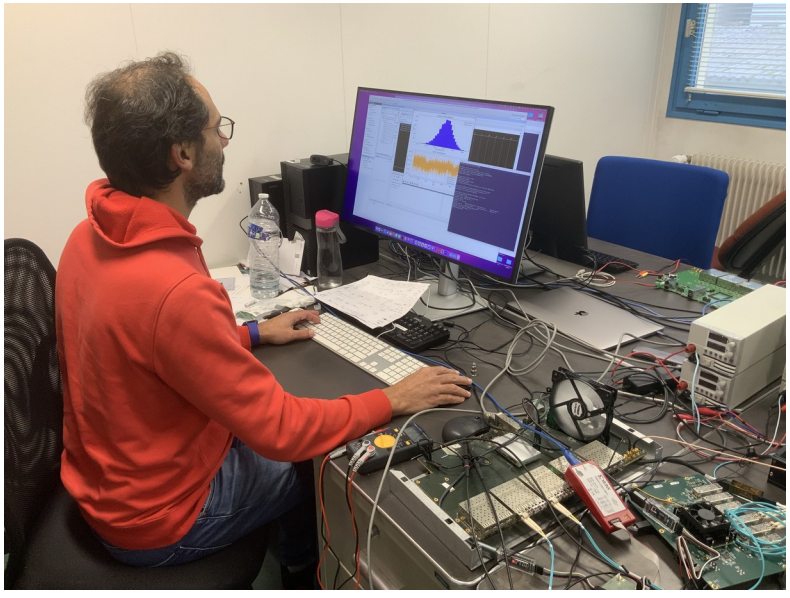
Development, production and tests of the second prototype of the Time Distribution Module (TDM) and of the corresponding test bench

Preproduction of 10 boards is launched at OUESTRONIC

Production of the 80 boards in the course of 2026



Vertical Slice Test of the HK electronics at CERN



Preparation for the HK electronics assembly project at CERN in the course of 2026