

Scientific Council of IN2P3

2-3 March 2026

Introduction to the open session

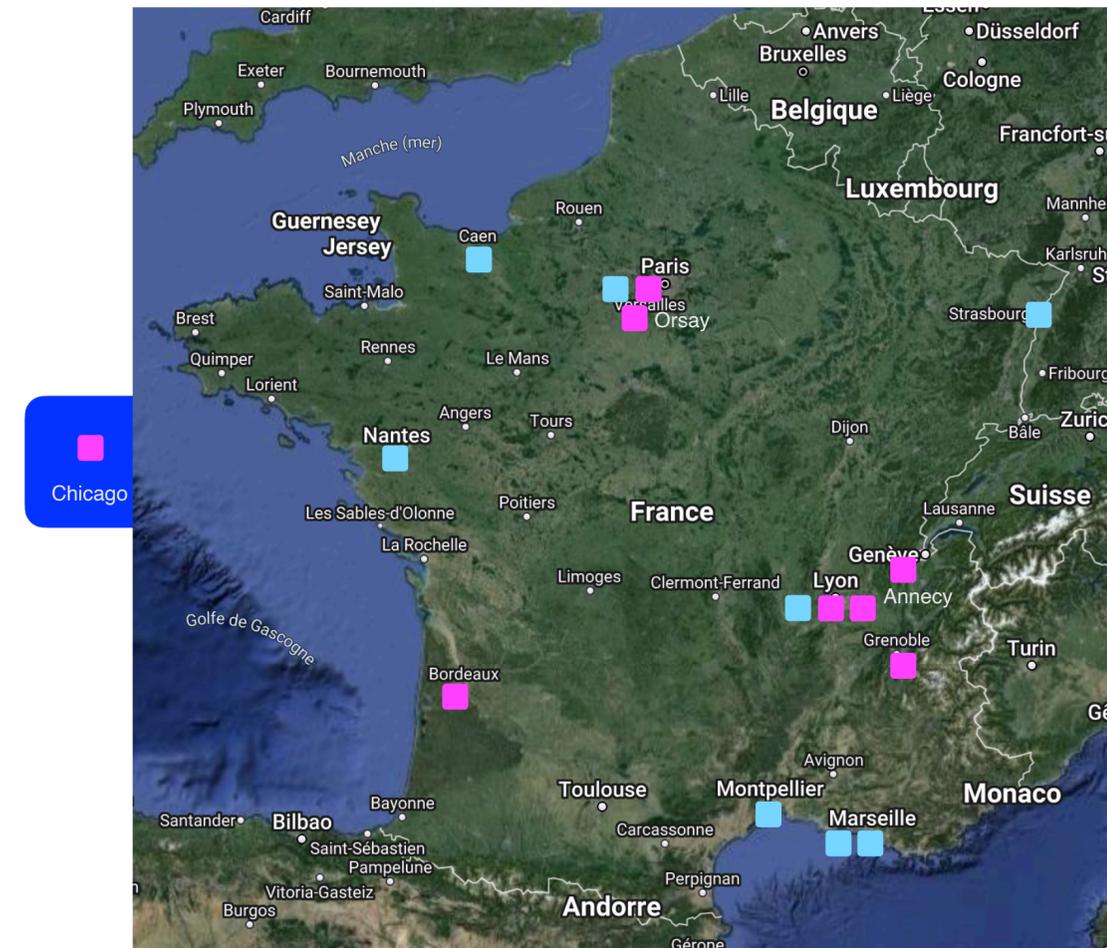
Topic :

KM3Net and DUNE

- ▶ Scientific Council [web site](#):
 - Agendas, slides, video recording, project description documents, Scientific Council report
- ▶ Scientific Council members:
 - Two new members appointed by the management of IN2P3:
 - **Greg Henning** (IPHC): nuclear energy
 - **Nicola Tamanini** (LP2I): gravitational waves
 - A new vacant seat (A1 CNRS) will be announced by the summer.
The election will be organised by the CNRS.

- ▶ Two Neutrino experiments presented today:
 - **DUNE: for information**
 - Previous review: DUNE [scientific review](#) in Oct 2021
 - IN2P3 laboratories: APC, IJCLab, IP2I, LAPP, LPSC, LP2I, PPC & platform: CC-IN2P3
 - **KM3NeT: for scientific review**
 - Previous review: ORCA [for information](#) in Oct 2021
 - IN2P3 laboratories: APC, CPPM, IPHC, LPC, LUPM, Subatech & platforms: CC-IN2P3, LSPM

- ▶ Science drivers from the [Strategic Plan for IN2P3](#):
 - Study matter-antimatter asymmetry and flavour transitions
 - Pursue searches for unknown particles and interactions
 - Explore further the physics associated with the properties of neutrinos
 - Identify the nature of Dark Matter

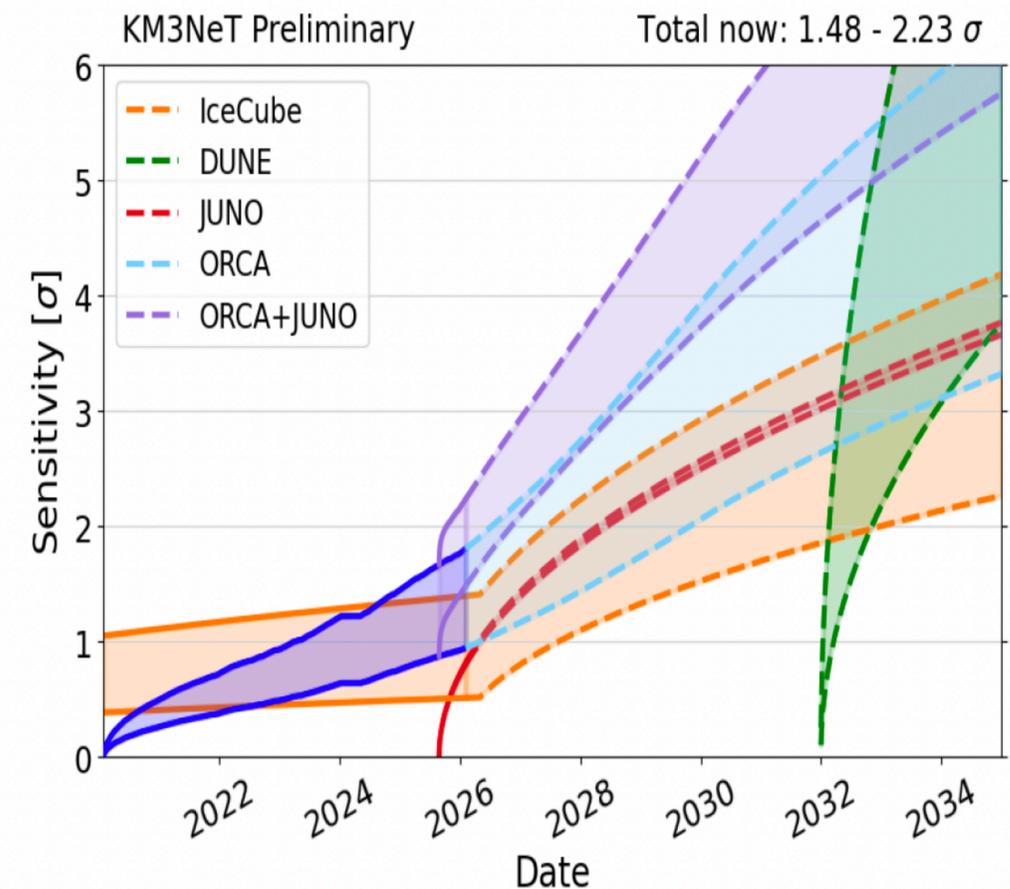


▶ **DUNE: long baseline neutrino oscillation experiment**

- Near (Fermilab) and far detectors (Sanford)
- Plan to start data taking in 2029 (PIP-II beam in 2032)
- Detect beam, atmospheric and solar neutrinos
- Main goals: mass ordering, CP violation, PMNS unitarity, beyond SM interactions, proton decay, Supernova study

▶ **KM3NeT: cubic-kilometre-scale neutrino telescope**

- Two sites currently in Mediterranean Sea: ORCA and ARCA
- Full construction should be completed by 2030-2032
- Detect atmospheric and cosmic neutrinos
- Main goals: mass ordering, ν_τ -CC cross section, beyond SM interactions, dark matter search, cosmic ray physics, multi-messenger astrophysics, Earth tomography. Also deep-sea observatory



→ Diverse, complementary and competitive programmes

Agenda

Open session: 2 March until 17:30

<https://indico.in2p3.fr/event/37437/>

you are being filmed

Please respect the allocated time

**Closed session: 2-3 March
Salle des séminaires**



09:30 → 09:50 **Session introduction**
Speaker: Isabelle Ripp-Baudot (IPHC, CNRS/IN2P3)

09:50 → 10:15 **Session scoping**
Speakers: Laurent Vacavant (IN2P3), Nicolas Leroy (IJCLab IN2P3/CNRS)

10:15 → 10:45 **The DUNE physics case 30' talk + 20' Q&A**
Speaker: Anselmo Meregaglia (LP2I Bordeaux)

11:05 → 11:35 **Coffee break**

11:35 → 12:05 **Status of the DUNE experiment 30' talk + 20' Q&A**
Speaker: Cédric Cerna (CNRS - UChicago Particle Physics & Cosmology IRL)

12:25 → 14:00 **Lunch break**

14:00 → 14:30 **The KM3NeT experiment 30' talk + 30' Q&A**
Speaker: Damien Dornic (CPPM)

15:00 → 15:30 **KM3NeT: the particle physics case 30' talk + 30' Q&A**
Speaker: Mathieu Perrin-Terrin (CPPM, Aix-Marseille Université, CNRS/IN2P3)

16:00 → 16:30 **Coffee break**

16:30 → 17:00 **KM3NeT: the astrophysics case 30' talk + 30' Q&A**
Speaker: Sonia El Hedri

17:30 → 17:35 **End of the open session**

- ▶ **Sebastian Böser** (Mainz University)
- ▶ **Olivier Drapier** (LLR, Palaiseau)
- ▶ **Olivier Martineau** (LPNHE, Paris)
- ▶ **Fabian Schussler** (Irfu, Saclay)

Many thanks for their useful contribution

- ▶ Thank you for the local help in organising this meeting at LPNHE:
 - [Marco Zito](#), director of LPNHE
 - [Michael Roynel](#), from Services Généraux at LPNHE
 - [Grégory Perrin](#), from Service de Communication at IJCLab

- ▶ Thank you for their general help to the scientific council:
 - [Danuta Dufurat-Chabriere](#), CoNRS assistant
 - [Valérie Haroutunian](#), IN2P3 management assistant

As planned currently:

- ▶ **6-7 July 2026: Nuclear energy**

- ▶ **12-13 October 2026:** topic to be decided
 - At CNRS Paris: **registration required**
 - If you do not have your own entry card
 - **Before the specified deadline**