

Introduction

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Goals

- **Get to know each other (38 participants !)**

- Present the scientific interests activities and expertises (analyses, tools, service tasks, technical works)
- Please attend Poster Session and Coffee Breaks

- **Discussions**

- How to **federate** further the French community?
Identify the **common grounds** and '**complementarities**'
Find **practical ways to work together** (meetings, PhD co-supervision, hackathon, mobility....)
- How to promote the **visibility** of the French community?
What are the **key analyses** and **resources** to perform them.
- How to **expand** (**skills, funding** and **collaborators**)?

- **Prepare the future**

- NMO will take 3 years, what do we do after?

Agenda

Wed 08/02

13:00

Introduction: Introduction *Mathieu Perrin-Terrin*
TBC, Paris, APC 13:30 - 13:45

14:00

Introduction: Status of the Detectors and Prospects *Miles LINDSEY CLARK*
TBC, Paris, APC 13:45 - 14:10

Neutrino Oscillation: Overview *Joao Coelho, Juergen Brunner*
TBC, Paris, APC 14:10 - 14:40

Neutrino Oscillation: Discussion
TBC, Paris, APC 14:40 - 15:40

15:00

Break
TBC, Paris, APC 15:40 - 16:00

16:00

Service Tasks: Overview *Lilian Martin*
TBC, Paris, APC 16:00 - 16:20

Service Tasks: Discussion
TBC, Paris, APC 16:20 - 17:00

17:00

Projection de l'esquisse du documentaire Majorana/KM3NeT
TBC, Paris, APC 17:00 - 17:20

Posters: Poster
TBC, Paris, APC 17:20 - 18:40

18:00

Management: Management
TBC, Paris, APC 18:40 - 19:10

19:00

Thu 09/02

Neutrino Astronomy: Overview *Damien Dornic*
TBC, Paris, APC 09:00 - 09:30

Neutrino Astronomy: Discussion
TBC, Paris, APC 09:30 - 10:30

10:00

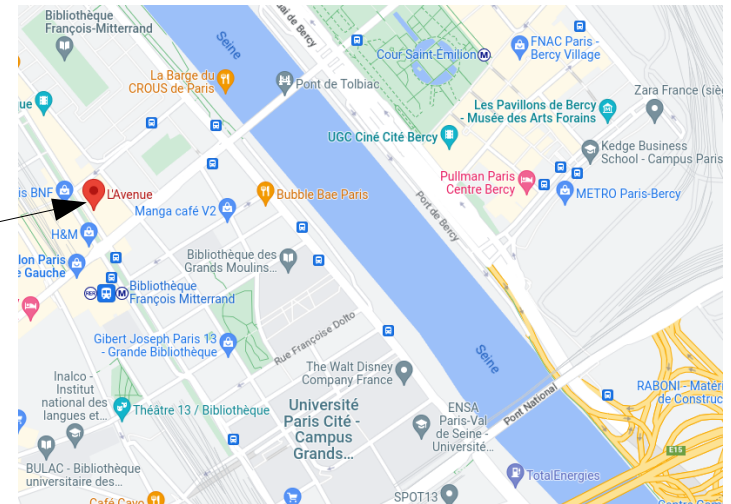
Break
TBC, Paris, APC 10:30 - 11:00

Future: Wave Length Shifter DOM *Alexandre Creusot*
TBC, Paris, APC 11:00 - 11:30

Future: Long Baseline Experiment *Mathieu Perrin-Terrin*
TBC, Paris, APC 11:30 - 12:00

12:00

DINNER



APC

- **17 Membres:**
 - **3 Chercheurs:** Bruny BARET, Joao COELHO, Sonia EL HEDRI
 - **7 Enseignant-Chercheurs:** Julien AUBLIN, Yvonne BECHERINI, Alexis COLEIRO, Alexandre CREUSOT, Corinne DONZAUD, Antoine KOUCHNER, Véronique VAN ELEWYCK
 - **1 Ingénieur-Chercheurs:** Alin ILIONI
 - **2 PostDocs:** Isabel GOOS, Rebekah PESTES
 - **4 PhDs:** Meriem BENDAHMAN, Théophile CARTRAUD, Enzo OUKACHA, Santiago PEÑA MARTÍNEZ
- Sujets et logiciels d'Analyses: NMO, Swim, Tomography, CCSN, HEN
- Contributions Techniques: Laser beacon, TPM, QAQC


- **11 Membres:**

- 4 Chercheurs: Vincent Bertin, Paschal Coyle, Damien Dornic, Mathieu Perrin-Terrin
- 1 Enseignant-Chercheur: José Busto
- 1 Ingénieur-Chercheur: Jürgen Brunner
- 1 PostDoc: Chiara Lastoria
- 4 PhDs: Bianca De Martino (3e année), Sébastien Le Stum (3e), Luc Cerisy (2e), Godefroy vannoye (2e)

- **Sujets et logiciels d'Analyses:**

- Neutrino oscillations: neutrino mass ordering, neutrino mass parameters, tau appearance, ParamNMH
- Multi-messenger astronomy : neutrino alerts, cc SN, GRBs, μ Quasars
- Neutrino tagging: prospective with neutrino beam, search for tagged neutrinos with NA62
- ORCA absolute positioning: Sun & Moon shadow, positioning with acoustic source (KM3Beam)
- Indirect detection of Dark Matter with neutrinos from Sun, Galactic Centre (so far only with ANTARES)

- **Contributions Techniques:**

- LSPM sea bed infrastructure: MEOC cables, Nodes, Manifold, PreBJS
- ORCA shore station: Power huts, control room at IMP  new building at Brégaillon
- ORCA DU construction: Base Modules, anchors, Dark Room calibration, LOM loading, DU tests, DU shipping
- ORCA Sea Operation: DU deployments (and recovery...) with Castor, DU connections with ROV Apache on Janus
- ORCA acoustic positioning: hydrophones, acoustic beacon emitters, acoustic navigation system
- ORCA Instrumentation Line
- ORCA detector operation
- Frameworks for online analyses and alert systems
- Germanium gamma spectrometer plugged on BJS

- Team (7 people) :
 - ✎ Chercheurs : Gregory LEHAUT, Valentin PESTEL, Antonin VACHERET
 - ✎ Enseignant-Chercheurs : Benoît GUILLON, Marc LABALME
 - ✎ PhD : Louis BAILLY-SALINS (2021-24), Ivan MOZUN MATEO (2023-26)
- Sujets (Outils) :
 - ✎ Cosmic Rays : Stopping muons & Muons Bundles (ML) → μ flux @ sea level ,
michel e^- , μ^+/μ^-
 - ✎ Oscillation : Sterile ... Unitarity & NMO (MONA & SWIM , ML , MC-MC)
 - ✎ Service task : Calibration muon , Light propagation (KM3Sim/GEANT4) , Compass
calibration (km3compass)
- Contributions techniques :
 - ✎ DU production Process I → Process II-III (Q1 2024) ?
 - ✎ Mechanical support : rope stretching ...
 - ✎ Integration software and monitoring tools (TEDI, km3dia)



- 5 Membres:
 - Chercheurs: L.Martin, L.Aphcette (transit. depuis ALICE)
 - Enseignant-Chercheurs: R.Dallier, V. Decoene
 - Ingenieur-Chercheurs:
 - PostDocs:
 - PhDs: F.Bretaudeau
- Sujets et logiciels d'Analyses: v et FRB. Analyses MM.
- Contributions Techniques:
 - Intégration de DOMs
 - Déploiement ORCA
 - Positionnement dynamique (acoustique+compas)

IPHC



- 3 Membres:
 - Chercheurs: 0
 - Enseignant-Chercheurs:
 - T. Pradier (Unistra), 0.6 (HDR)
 - A. Albert (IUT UHA) 0.1 + D. Drouhin (IUT UHA) 0.05 – Shifts & projets tuteurés étudiants L3 Physique
 - Ingenieur-Chercheurs:
 - PostDocs: 0 / PhDs: 0
- Sujets et logiciels d'Analyses:
 - GWHEN LIGO/Virgo (offline / online) ANTARES -> KM3NeT
 - GRANDMA :
 - suivi électromagnétique des alertes Neutrinos (dont KM3NeT dès que possible)
- Contributions Techniques:
 - Intégration de DOM
 - IE 100 % = S. Kihel, C. Weber (production)
 - IE 10% = M. Richer (Support IT)
 - IR 10% = S. Suzanne-Ochsenbein (Qualité)