

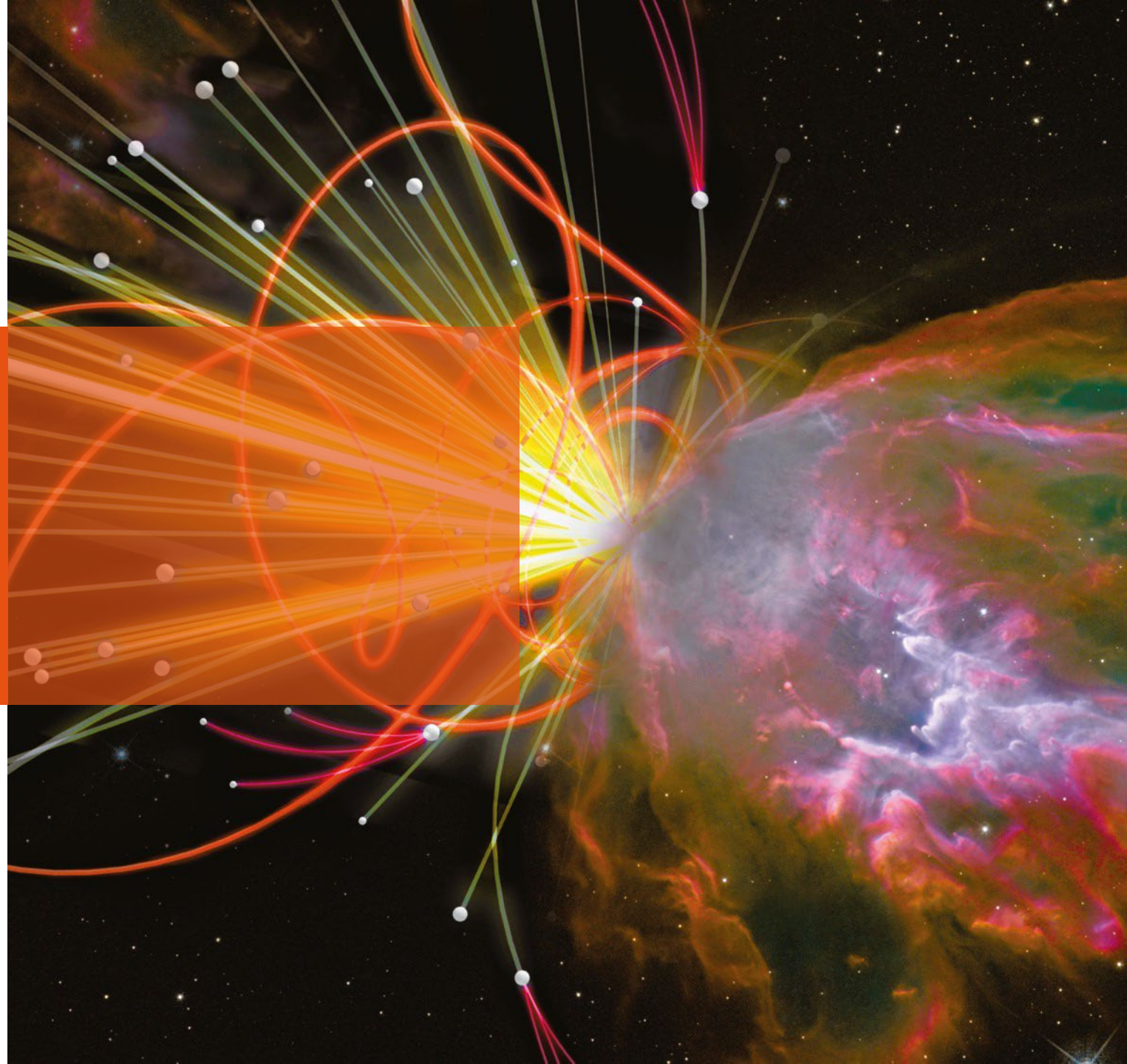


Institut national de
physique nucléaire et de
physique des particules

YGGDRASIL festival *tomorrow but better*

Emmanuel Jullien

IPPOG meeting 24/04/2024



A festival of imaginary worlds and the future

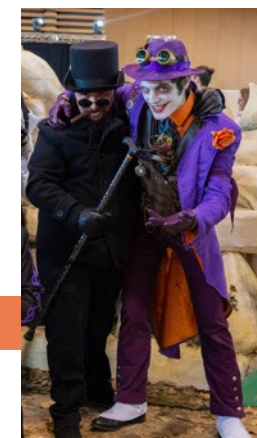
At Eurexpo Lyon
Every year 1 weekend in February

30,000 visitors
21,000+ m² of exhibition space
240 exhibitors



A preview of Yggdrasil in images

Heroic Fantasy, Manga, Science fiction, video games, fantasy, etc.



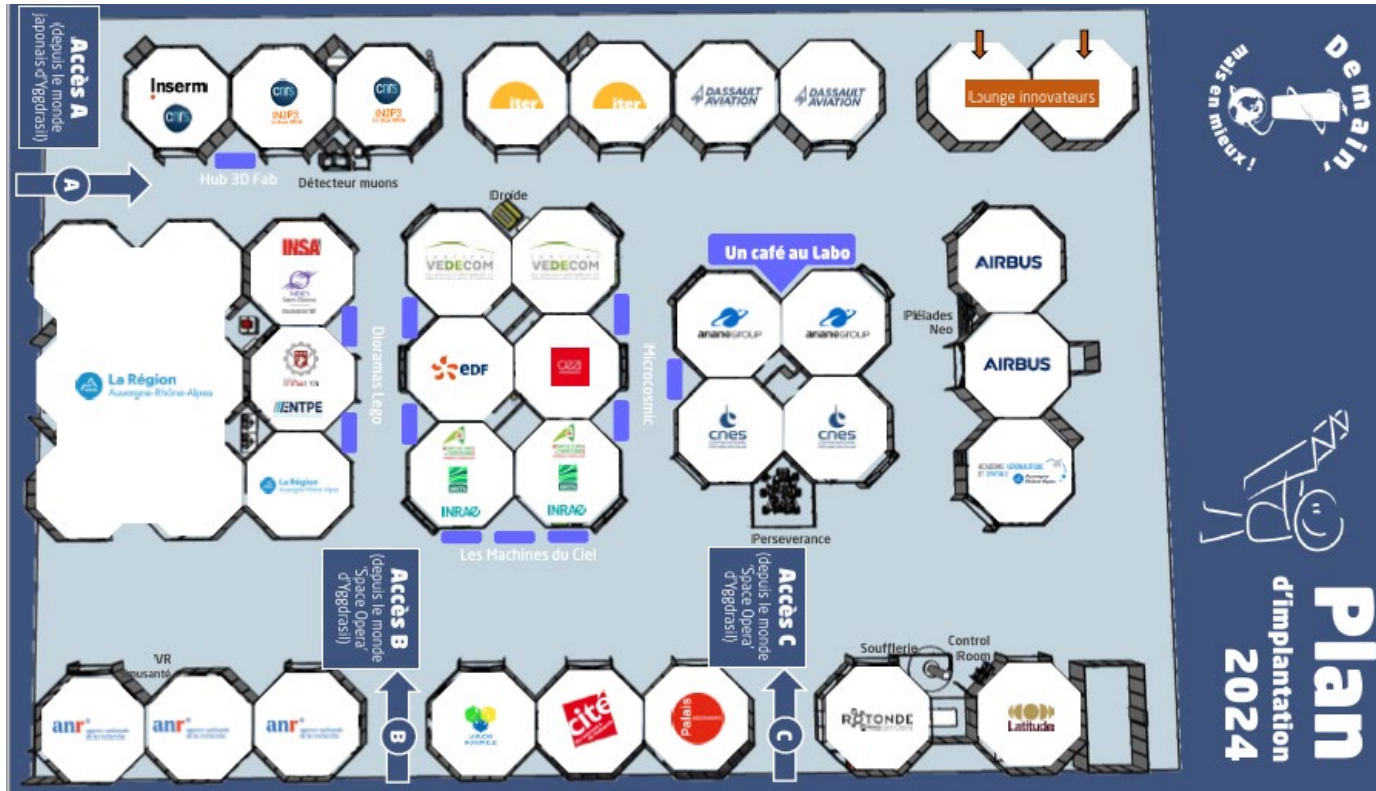
A festival with several universes :

King Cross, Nautilus, Kohaku, Camelot, Starwars, Sherwood, Papanohida, Alexandrina and... « Tomorrow but better »



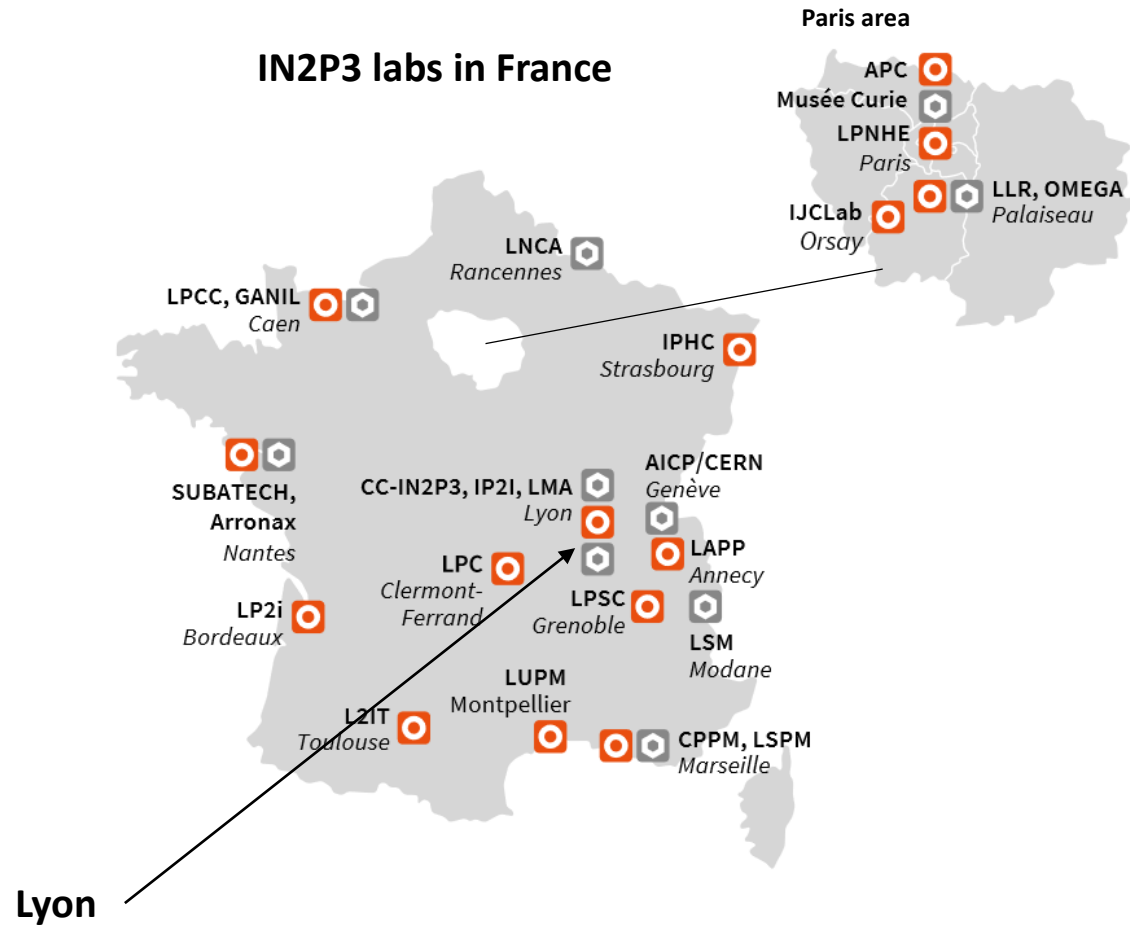
Tomorrow but better: A meeting place for the general public, science and new technologies since 2022

Including CNRS, CEA, CNES, Airbus, Ariane, ITER, Cité des Sciences, EDF,...



Why IN2P3 took part in this edition

- Previous positive experience from partners, from CNRS and some of our scientists
- Lyon : central place for IN2P3 and its laboratories
- Major event at which other national institutions are represented: opportunity to organise a unifying event under the IN2P3 banner
- Opportunity to run a larger outreach operation under the IN2P3 banner



Why IN2P3 took part in this edition

- To reinforce our communication on neutrinos (many experiments -> lot of people at IN2P3) and create reusable outreach content

JUNO experiment in China starts in 2025

DUNE experiment is under construction in Fermilab and Sandford in the US

HyperKamiokande is under construction in Japan

KM3NeT is under construction in France and Italy on the bottom of the mediterranean sea

T2K experiment restarts this year in Japan

...



Neutrinos are a key for futurs discoveries beyond standard model and for cosmology

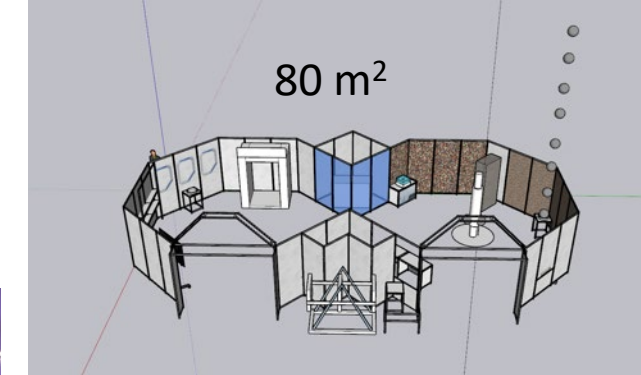


Why IN2P3 took part in this edition

- To meet a young, inquisitive audience, a target for recruitment purposes
- To meet a family audience that is far removed from science but open to it
- To experience an unusual place for outreach
- 2023-2024 is the school year of physics in France and 2024 is CERN70



Our stand for the 2024 edition



KM3NeT and JUNO displays, computing server, ANTARES module, KM3NeT line



ANTARES module



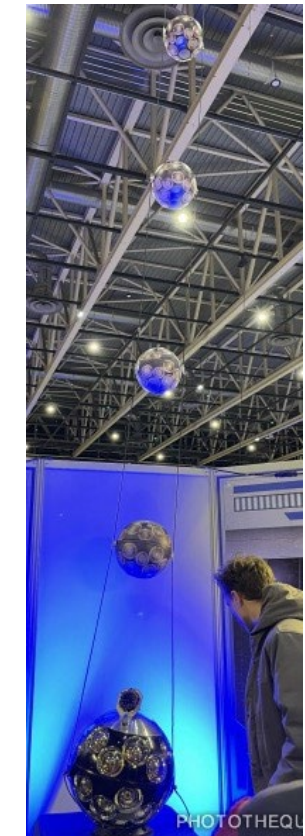
Stand entry



JUNO detection plan



Demo computing server and DUNE artist's view



14-m KM3NeT line



Cosmic cabin, particle zoo, fog chamber



Particle Zoo (plush toys and pokemon cards)

In images

<https://phototheque.in2p3.fr/index.php?/category/2242>



In images

The “Café in the lab” was also an other original way to have discussions with the public. The guy with red hair is a researcher in the gravitational waves field, serving some drinks to the passing people and taking this opportunity for talking about his work.



In numbers

- 7 labs and 36 people mobilised in Lyon (for the setup, for communication, for animation)
- 5 months of preparation
- 1 afternoon to setup the stand with pieces coming from all the labs (1 hour to dismantle it)
- Relay of 22 scientists over the week-end (about 8 to 10 people in the stand at any moment)
- Film crews from communication teams
- Around 1000 à 2000 visitors on our stand
- Up to 48 774 impressions and 13,795 unique views on Twitter



On social media

cnrs CNRS Nucléaire & Particules
@CNRS_IN2P3

J-1 🚀 décollage imminent pour le #FestivalYggdrasil

Zoo des particules, chambre à brouillard, rencontre avec les neutrinos : rejoignez les scientifiques sur notre stand #DemainMaisEnMieux les 3-4 fév. à @eurexpo!

in2p3.cnrs.fr/fr/evenement/d... #AnnéePhysique @CNRS #CERN70 @CERN_FR



9:40 AM · 2 févr. 2024 · 7 370 vues

7,371 impressions
184 engagements

cnrs CNRS Nucléaire & Particules
@CNRS_IN2P3

Boson W lance... Fusion Stellaire! ✨
Vous perdez 120 HP 📉

Pour tenter une riposte à l'aide cartes #Pokemon des particules élémentaires les plus féroces de l'Univers, rejoignez le stand IN2P3 au #FestivalYggdrasil sur #DemainMaisEnMieux #Yggdrasil



👤 CNRS 🌱 et 6 autres personnes

1:51 PM · 3 févr. 2024 · 4 937 vues

4,938 impressions
267 engagements



6 videos
shared live

cnrs CNRS Nucléaire & Particules @CNRS_IN2P3 · 3 févr.
Au #FestivalYggdrasil, la chambre à brouillard 🌫️ vous donnera un aperçu des particules qui vous traversent à tout instant.

Du brouillard pour y voir plus clair, un paradoxe à découvrir sur le stand IN2P3!

#DemainMaisEnMieux #Yggdrasil



👤 4 🔄 50 ❤️ 168 📊 48k 📌

48,774 impressions

1,174 engagements

13,795 unique views

New outreach resources



Sets of 18 pokemon cards

Original AI-generated visual integrated into a Pokemon card-type cartridge.



Mediation support booklet for presenters. History, the standard model, natural and artificial sources, oscillations, major experiments around the world.



New posters and artists' views

PORTRAIT-ROBOT DU NEUTRINO

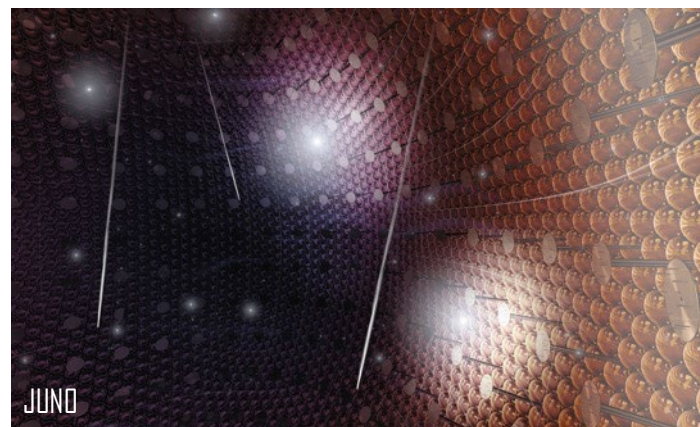
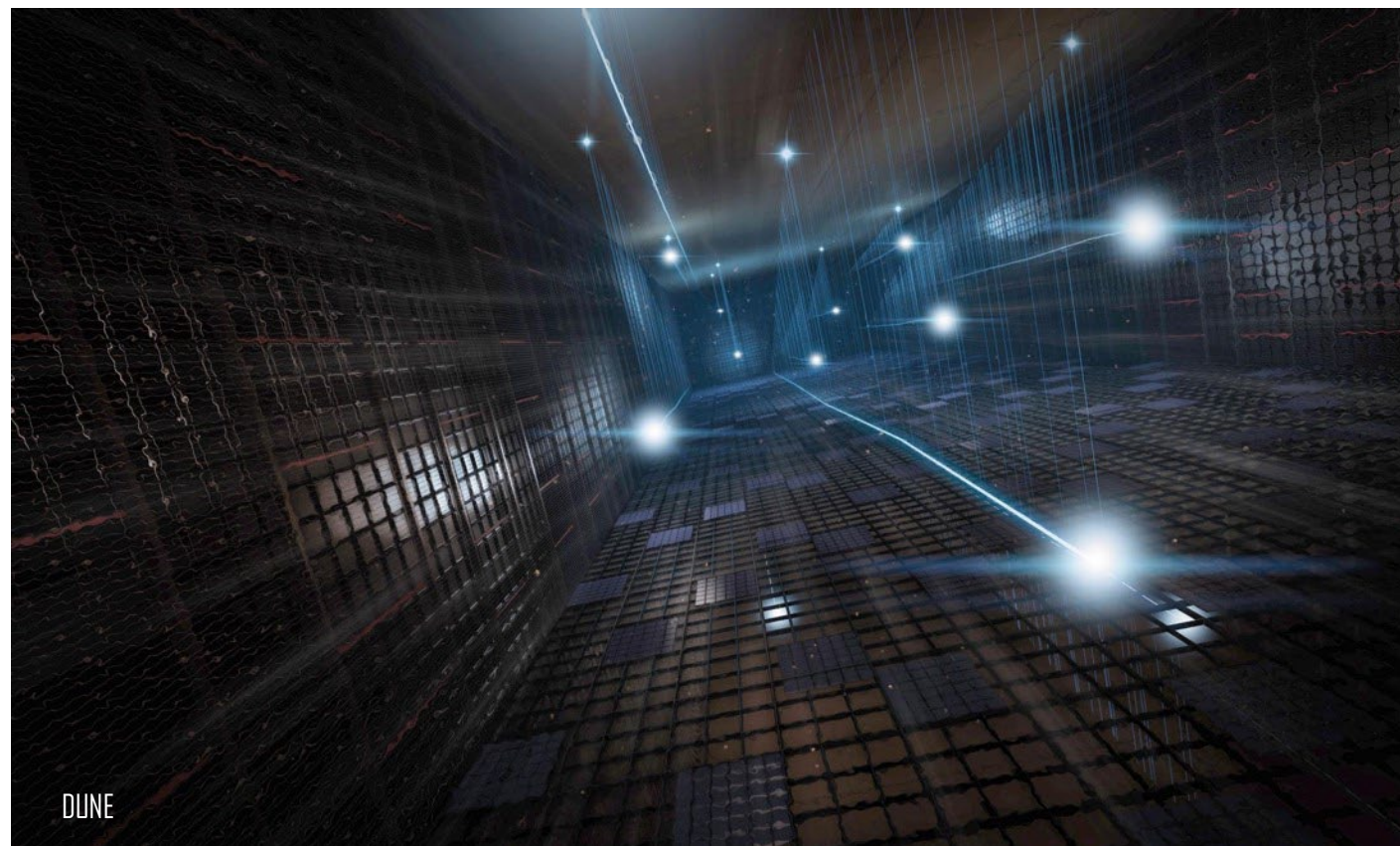
3 types de neutrinos :
Électronique, Muonique, Tauique

465 000 fois moins massif qu'un électron !

60 milliards
C'est le nombre de neutrinos provenant du Soleil reçus par cm^2 en 1 seconde !

99,9999999999 % des neutrinos qui passent au travers des détecteurs le font sans interagir.

1 année-lumière de plomb pour arrêter la moitié des neutrinos solaires.



A successful experience, to be repeated?



Thank you for your attention

Emmanuel Jullien

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