



Dufy, Raoul, Paris sous les étoiles, c.1950

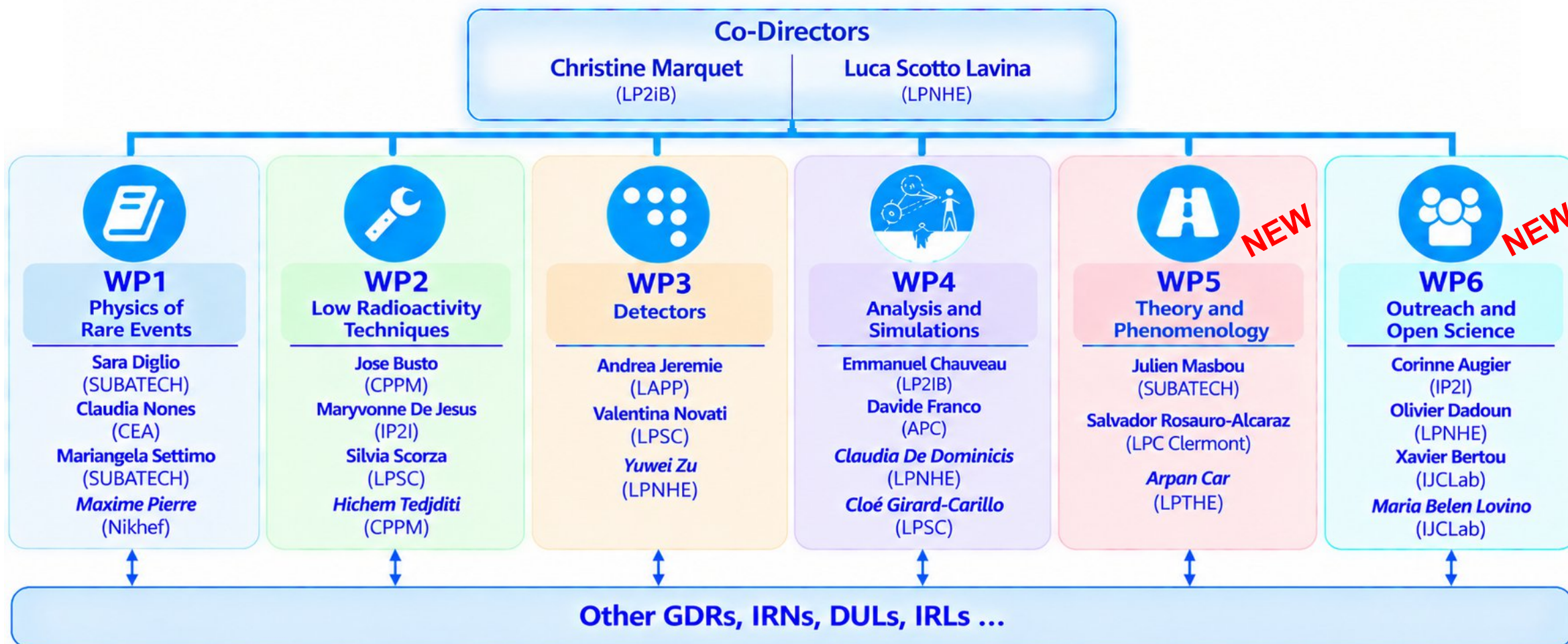
DUP²

Deep Underground Physics

Christine Marquet, Luca Scotto Lavina

7th DUPhy annual meeting, 19-21 October 2026, LPNHE, Paris

Organisation

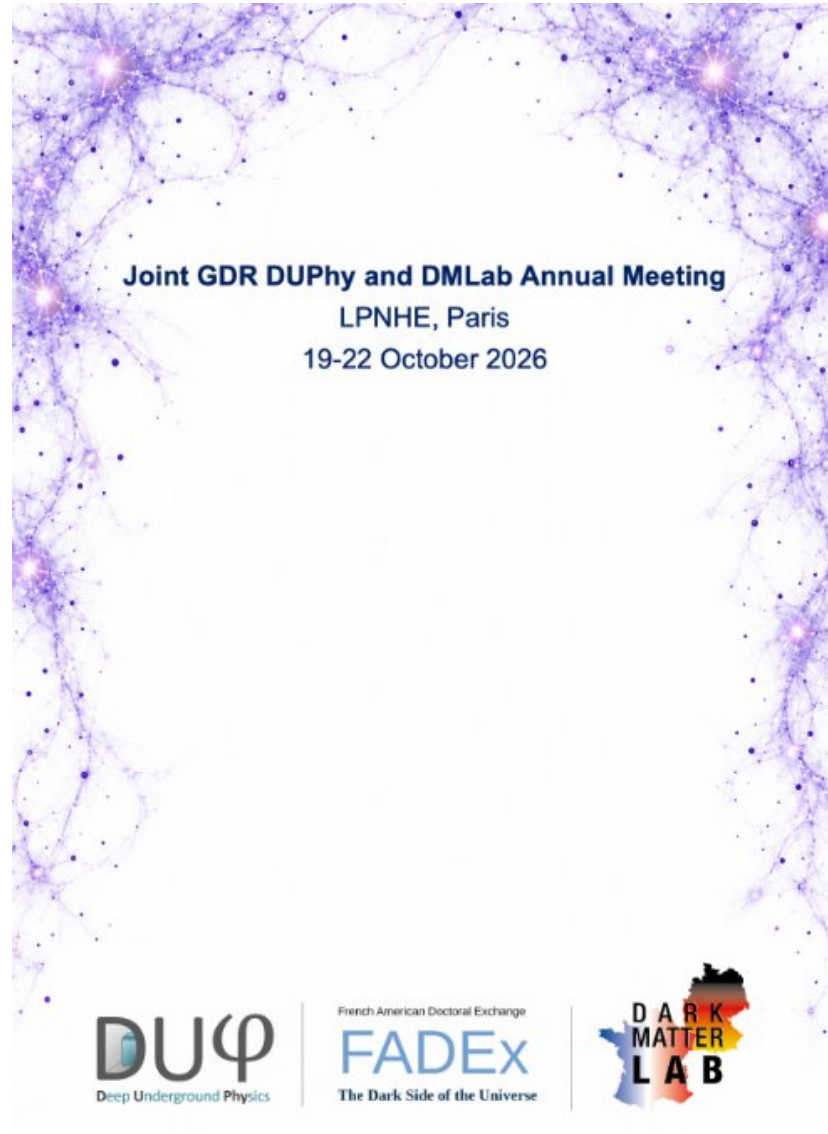


Italic = Early Career Scientists

- 11 laboratories IN2P3 + 1 CEA + 1 foreign laboratory
- ≥ 1 early career scientists on each WP

This meeting

<https://indico.in2p3.fr/event/39579/>





French-American Doctoral Exchange: The Dark Side of the Universe
Paris, Madane (France) and Geneva (Switzerland)
19 - 23 October 2026

The French-American Doctoral Exchange (FADEX): The Dark Side of the Universe is a one-week immersion program organized by the Office for Science and Technology of the Embassy of France in the United States, and CNRS - Institut de Physique de l'Université de Paris (GDR DUΦ²). Please meet the 2026 FADEX "The Dark Side of the Universe" cohort: 16 outstanding PhD students, 12 from the United States and 4 from France, were selected and brought together for a unique one-week scientific immersion in dark matter physics. Learn more about the program [here](#).

Welcome!



Kush Aggarwal
University of Washington



Talia Benioff-White
UC Santa Barbara



Grace Bratrud
Northwestern University



Abby Chris
University of Chicago



Prithi Daghlian
California Institute of Technology



Nora Hoch
MIT



Gabe Hoshino
University of Chicago



William Matava
UC Berkeley



Aashay Pal
University of Chicago



Ivar Rydstrom
UC Berkeley



Sanjay Sharma Poudel
University of Houston



Cinyu Zhu
Johns Hopkins University



Juliette Blé
CNRS - Université Grenoble Alpes



Veronica Cazzola
CNRS - Sorbonne Université



Ananthakrishnan Ravindran
CNRS - IMT Atlantique,
University of Melbourne



Sara Vesce
CEA - Université Paris-Saclay

Photo credit for Grace Bratrud: JJ Starr and Ryan Postel, Fermilab

Background information on the FADEX program of the Embassy of France in the United States

The Office for Science and Technology (OST) at the Embassy of France in the United States is committed to strengthening the long-standing scientific partnership between France and the United States. To support this mission, the OST has developed several initiatives promoting scientific cooperation, including the French-American Doctoral Exchange (FADEX) program. Previous editions have addressed themes such as Artificial Intelligence, Cybersecurity, Quantum Information Sciences, Ocean Sciences, and Precision Psychiatry.

The FADEX program provides PhD students enrolled in U.S. institutions with the opportunity to engage in high-level academic and professional activities through a scientific immersion in France. By connecting early-career researchers with leading French laboratories and research teams, the program contributes to strengthening long-term French-American scientific collaboration. Each edition focuses on a specific scientific theme to encourage targeted and meaningful interactions. Participants have the opportunity to visit renowned research institutions, attend keynote lectures, interact directly with experts in their field, and present their own research, fostering dialogue, collaboration and the exploration of potential future joint research initiatives.

Sponsors



French American Doctoral EXchange *The Dark Side of the Universe*

One-week visit in France of **12 US-based PhD students**, together with **4 France-based PhD students**, accompanied by **Valerie Livrelli**, French Embassy in USA and **Cédric Cerna**, director of the IRL PPC in Chicago
Local organisers Luca Scotto Lavina and Christine Marquet

- Sun 18: Arrival in Paris
- Mon 19: Visit of APC, LPNHE, GDR DUΦ²
- Tue 20: GDR DUΦ² + 3 Minutes Thesis (3MT)
- Wed 21: GDR DUΦ² + DMLab
- Thur 22: Visit of LSM
- Fri 23: Visit of CERN (Neutrino Platform, MADMAX, ATLAS)
- Sat 24: Departure

October 21st - Morning joint with DMLab+DUPhy

09:00 → 09:30 Welcome

- 09:00 **Welcome DMLab**
Orateurs: Dirk ZERWAS (DMLab), Thomas Schörner (DESY)
 261021_Annual ...
- 09:10 **Welcome to LPNHE**
Orateurs: Luca Scotto Lavina (LPNHE Paris), Marco Zito (LPNHE)
- 09:20 **Welcome DUPhy/FADEX**
Orateurs: Luca Scotto Lavina (LPNHE Paris), christine marquet

09:30 → 10:50 **Direct Searches for Dark Matter: Direct Searches for Dark Matter I**
Présidents de session: Klaus Eitel (Karlsruhe Institute of Technology), christine marquet

- 09:30 **XENONnT WIMP searches**
Orateur: Ananthakrishnan Ravindran (IMT Atlantique)
- 09:50 **LZ Event Discussion Journal Club Style**
Orateurs: Marco CIRELLI (LPHE Jussieu CNRS), Dr Maxime PIERRE (NIKHEF)
 01.LZ_event_202...
- 10:10 **Measurement of solar neutrinos at the keV scale by XENONnT and R&D efforts towards XLZD**
Orateur: Alexey Elykov (Karlsruhe Institute of Technology (KIT))
- 10:30 **Super Heavy Dark Matter and KM3Net**
Orateur: Antonio Ambrosone (Gran Sasso Science Institute)
 SHDM_Ambrosone...

10:50 → 11:10

Coffee Break

11:10 → 12:30 **Direct Searches for Dark Matter: Direct Searches for Dark Matter II**
Présidents de session: Fabrice Hubaut (CPPM, Aix-Marseille Université, CNRS/IN2P3), Yajing Xing (LPNHE)

- 11:10 **DAMIC**
Orateur: Nicolás Avalos (LPNHE / CNRS)
- 11:30 **Search for Dark Matter with a 0.2ng TES Detector**
Orateur: Elmeri Rivasto (Deutsches Elektronen Synchrotron DESY, Notkestr. 85, 22607 Hamburg, Germany)
 Rivasto.pdf
- 11:50 **MADMAX**
Orateur: Katharine Dixon (CPPM Université Aix-Marseille, IN2P3/CNRS)
 MADMAX_DMLab...
- 12:10 **babylaxo**
Orateur: Louis Helary (DESY)

12:30 → 14:00

Lunch

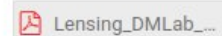
**Lunch served at the hotel
(conference room)
only for registered DMLab
participants**

14:00 → 15:30 Phenomenology of Dark Matter: Phenomenology of Dark Matter I

Présidents de session: Adam FALKOWSKI (IJCLab), Felix Kahlhoefer (Karlsruhe Institute of Technology)

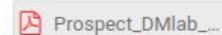
14:00 Lensing from amplitudes beyond GR

Orateur: Niccolò Feci (Université Paris-Saclay - IJCLab)



14:20 Probing Long-Lived Particle Production in Muon Decays

Orateur: Salvador URREA GONZALEZ



14:40 Direct and Indirect searches for Dark Matter-electron interactions in sub-GeV DM models

Orateur: Arpan Kar (LPHE, Sorbonne University)

15:00 Monopole dark matter

Orateur: Giacomo Ferrante (Université Libre de Bruxelles (ULB))

15:30 → 16:00 Coffee Break

16:00 → 17:30 Phenomenology of Dark Matter: Computing and Machine Learning

Présidents de session: Christiane Schneide (DESY), Prof. Elena Bratkovskaya (GSI, Darmstadt & Frankfurt Uni.)

16:00 PUNCH4NFDI infrastructure and use cases

Orateur: Christiane Schneide (DESY)

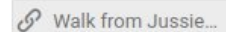
16:20 Higgs Inversion with ML

Orateur: Timothe Bouy Gruaz

16:40 CNN applied to Calorimetry

Orateur: Xin XIA

19:30 → 21:30 Dinner at L'Escarmouche



🕒 2h



Map



DMLab social dinner, Restaurant L'Escarmouche

40 rue de la Montagne Sainte Geneviève, 75005

Your **dietary restrictions** are stick behind your badge!
Please look at them if they are correct !

09:30 → 10:30 Detectors and Accelerators: Detectors and Accelerators I

Présidents de session: Pascal PRALAVORIO (CPPM, Aix-Marseille Université, CNRS/IN2P3), Yanina Biondi (KIT - IAP)

09:30 SiW Testbeam Results

Orateur: Valeria Pérez Martínez (LLR École Polytechnique)

09:50 Optimization of the SiW Calorimeter for the Ship Detector

Orateur: Jesus Pedro MARQUEZ HERNANDEZ (IJCLAB (CNRS))

10:10 AICE, the Atom Interferometer CERN Experiment

Orateur: Pierre CLADE ((CNRS)UMR8552)

10:30 → 11:00 Coffee Break

11:00 → 12:00 Detectors and Accelerators: Detectors and Accelerators II

Présidents de session: Dr Nicolas Delerue (IJCLab, CNRS et Université Paris-Saclay), Roman Poeschl (IJCLab)

11:00 Lohengrin

Orateur: Cedric Breuning (Universität Bonn)

11:20 Inverse modelling of a laser-plasma accelerator

Orateur: Mykyta Lenivenko (IJCLab)

[🔗 Slides](#)

11:40 From PALLAS to DESY: Current Developments on Plasma Targets for Laser Plasma Accelerators

Orateur: Jana SERHAL (IJCLab)

12:00 → 12:10 Famous Last Words

Orateurs: Dirk ZERWAS (DMLab), Thomas Schörner (DESY)

No lunch offered

Towards a sustainable meeting



We made an effort to make this meeting eco-friendly

- **Reusable badges** → please drop your badge at the end of the Meeting in the special box provided at the entrance of the meeting room (you can keep the paper sheet inside)