



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



GDR DUΦ - Deep Underground Physics - Review 2021-2025 - Prospects for 2026-2030

Corinne Augier,^a Jose Busto,^b Maryvonne De Jésus,^a Davide Franco,^c Romain Gaior,^d
Claudio Giganti,^d Björn Herrmann,^e Andrea Giuliani,^f Jacob Lamblin,^g Stefanos
Marnieros,^f Christine Marquet,^h Julien Masbou,ⁱ Luca Scotto Lavina,^d Silvia Scorza,^g
Mariangela Settimo,ⁱ Dominique Thersⁱ

Director : Corinne Augier
Christine Marquet as deputy the latest year



ANNÉE 2026

PROJET DE RENOUVELLEMENT D'UN RÉSEAU THÉMATIQUE

Type de réseau : ☒ GROUPEMENT DE RECHERCHE (GDR)
☐ GROUPEMENT DE SERVICE (GDS)
☐ FÉDÉRATION DE RECHERCHE D'ANIMATION (FRA)

Intitulé du réseau thématique (90 caractères maximum) : Deep Underground Physics (DUΦ)

Sigle du réseau thématique : DUΦ

Date de création envisagée : renouvellement, à partir de Janvier 2026

Durée du projet : 5 ans

Entité du ou des rattachements principaux : IN2P3 Institut National de Physique Nucléaire et de Physique des Particules

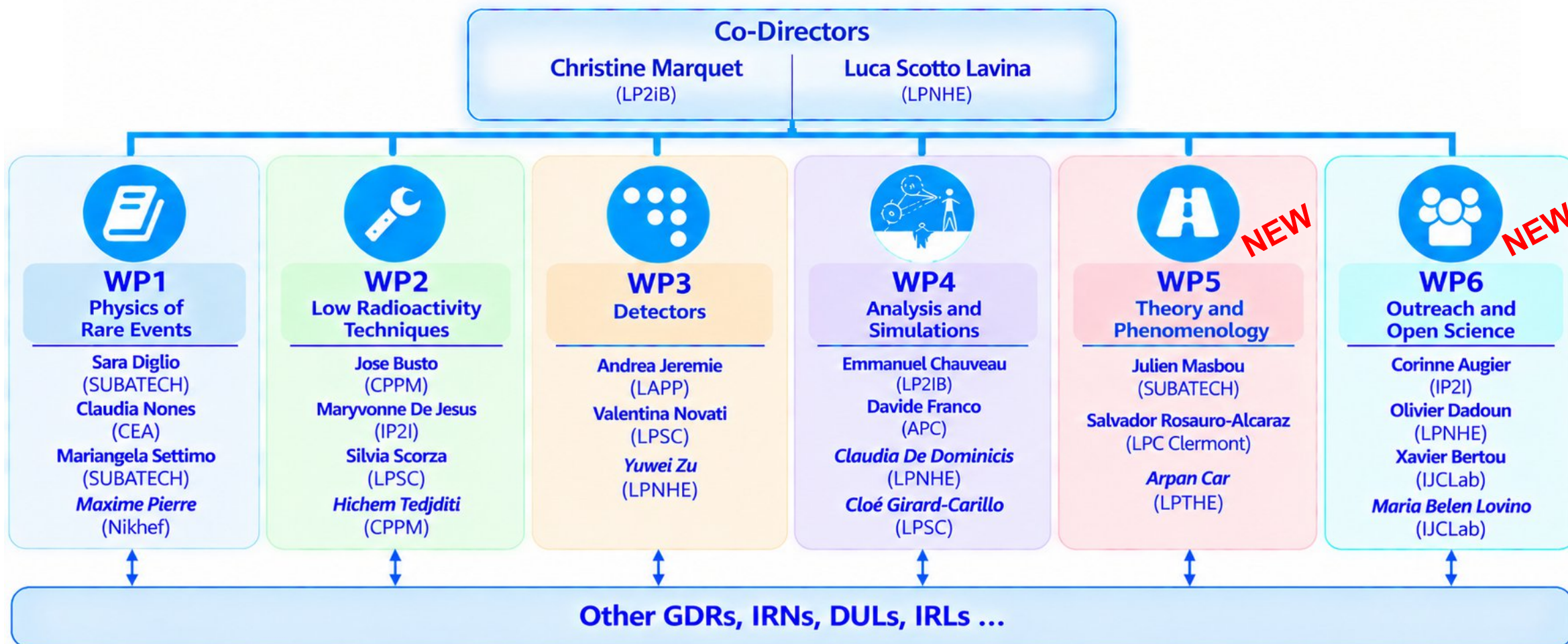
Institut(s) secondaire(s) :

Directors :
Christine Marquet and Luca Scotto Lavina

A great thank you! to Corinne, former director



Organisation



Italic = Early Career Scientists

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



WP1 **Physics of Rare Events**

Sara Diglio
(SUBATECH)
Claudia Nones
(CEA)

Mariangela Settimo
(SUBATECH)

Maxime Pierre
(Nikhef)

- Strengthen **links with IRNs** (Pauline – South Africa, XERD – Australia)
- Support **ongoing** and **future** underground experiments **in the same WP** **NEW**
- Foster the dissemination of **major results** and discussions of their **implications**
- Promote **synergies** between underground physics, astrophysics, cosmology, nuclear physics and high-energy physics



WP2 **Low Radioactivity Techniques**

Jose Busto
(CPPM)

Maryvonne De Jesus
(IP2I)

Silvia Scorza
(LPSC)

Hichem Tedjiti
(CPPM)

- Strengthen **links with Deep Underground Laboratories** (DULs) and MSCA-SE NEXUS (WP1 – Radon)
- Foster expertise sharing on background reduction and instrumental developments, with **a particular focus on radon mitigation**
- Train the next generation of experts through dedicated schools and workshops on radiopurity and low-background techniques.
- Strengthen coordination across experiments through **dedicated low-radioactivity contacts**



WP3 **Detectors**

Andrea Jeremie
(LAPP)
Valentina Novati
(LPSC)
Yuwei Zu
(LPNHE)

- Strengthen **links with GDR DI2I and DRDs**
- **Share instrumental expertise** in rare-event detection and low-background experiments.
- **Improve understanding** of current detectors (signals, calibrations, etc.) and **support the design of future experiments**
- Foster discussions on emerging technologies and **new R&D directions** through dedicated round tables



WP4 **Analysis and Simulations**

Emmanuel Chauveau
(LP2IB)

Davide Franco
(APC)

Claudia De Dominicis
(LPNHE)

Cloé Girard-Carillo
(LPSC)

- **Bridge** expertise from microphysics to statistical inference
- Improve **background predictions** and strengthen **signal extraction method**.
- Foster coordination, comparison and benchmarking of **simulation tools across experiments**.
- Promote knowledge sharing on **statistical methods** and **machine learning techniques**.



WP5
**Theory and
Phenomenology**

Julien Masbou
(SUBATECH)

Salvador Rosauro-Alcaraz
(LPC Clermont)

Arpan Car
(LPTHE)

- Dedicated WP **NEW**
- Strengthen links with IRN Terascale, IRN Neutrino and GDR RESANET
- Foster closer interactions between theoretical and experimental communities.
- Promote the integration of phenomenological insights across DUPhy's research topics.
- Encourage interdisciplinary exchanges and collaborations.



WP6

Outreach and Open Science

Corinne Augier
(IP2I)

Olivier Dadoun
(LPNHE)

Xavier Bertou
(IJCLab)

Maria Belen Lovino
(IJCLab)

NEW

- New WP!
- Strengthen **links with IN2P3 and laboratory communication teams, media and artists**
- Improve coordination and sharing of **outreach resources across the community**
- Promote **Open Science** to enhance the dissemination of results and foster collaborations
- Strengthen **science–society dialogue** and inspire younger generations to pursue scientific careers

<https://gdrduphy.in2p3.fr/>



Link to all meetings :

<https://indico.in2p3.fr/category/987/>

Link to this one :

<https://indico.in2p3.fr/event/39848/>

Open mailing list (all of us!):

[***gdrduphy-l@in2p3.fr***](mailto:gdrduphy-l@in2p3.fr)

Hosted by the listserv.in2p3.fr service of CC-IN2P3.

If you are not there, please subscribe!

Useful to broadcast information, advertise new open positions and events.

Mailing lists for the coordination:

[***gdr-dup-conseil@ip2i.in2p3.fr***](mailto:gdr-dup-conseil@ip2i.in2p3.fr)

To reach the management
(all conveners)

[***gdr-duphy-wp1@ip2i.in2p3.fr***](mailto:gdr-duphy-wp1@ip2i.in2p3.fr)

[***gdr-duphy-wp2@ip2i.in2p3.fr***](mailto:gdr-duphy-wp2@ip2i.in2p3.fr)

[***gdr-duphy-wp3@ip2i.in2p3.fr***](mailto:gdr-duphy-wp3@ip2i.in2p3.fr)

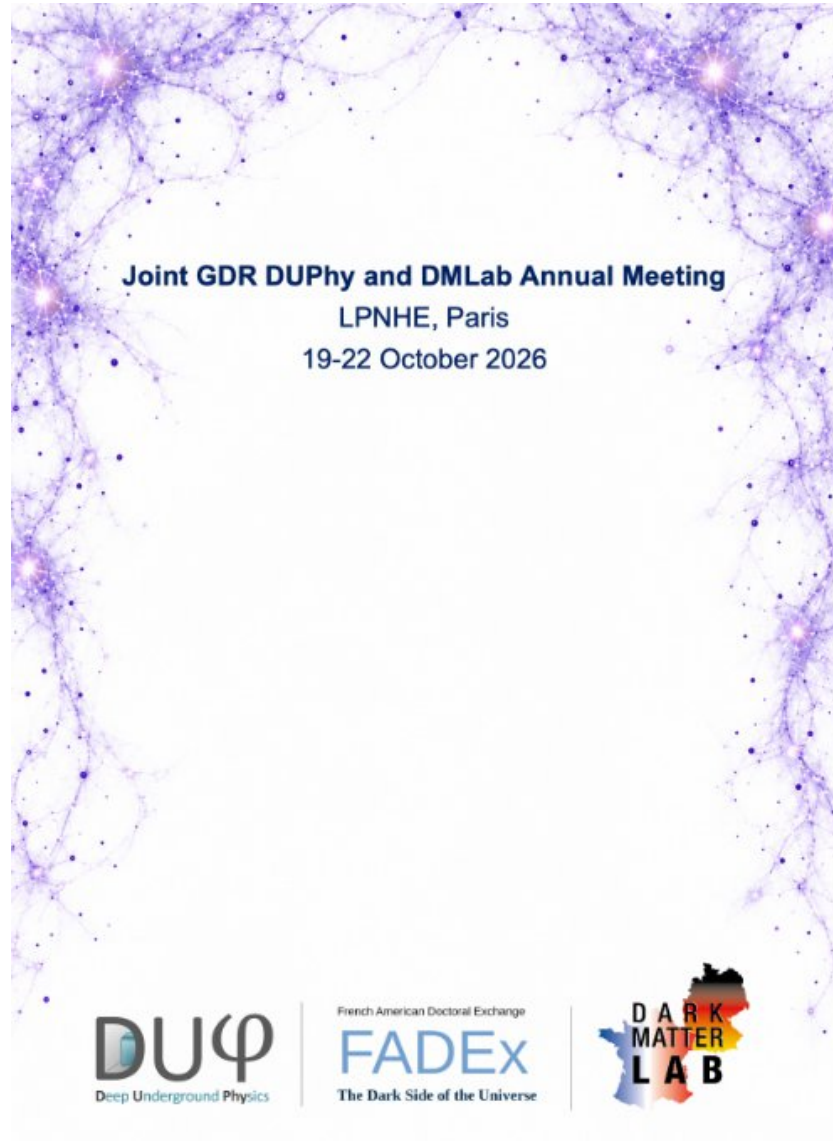
[***gdr-duphy-wp4@ip2i.in2p3.fr***](mailto:gdr-duphy-wp4@ip2i.in2p3.fr)

[***gdr-duphy-wp5@ip2i.in2p3.fr***](mailto:gdr-duphy-wp5@ip2i.in2p3.fr)

[***gdr-duphy-wp6@ip2i.in2p3.fr***](mailto:gdr-duphy-wp6@ip2i.in2p3.fr)

To reach specific WP conveners

Link : <https://indico.in2p3.fr/event/39848/>





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](#).



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 Scarr 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

Only for FADEx.

Welcome buffet for all who registered

Program – Day 2, October 20th

09:00	Session: WP4	
10:00	Charpak Amphitheatre, LPNHE	09:00 - 10:30
	Coffee break	
	Charpak Amphitheatre, LPNHE	10:30 - 11:00
11:00	Session: WP4 + WP1	
12:00	Charpak Amphitheatre, LPNHE	11:00 - 12:30
13:00	Lunch Lunch served at the hotel (conference room)	
	Charpak Amphitheatre, LPNHE	12:30 - 14:00
14:00	Session: FADEX : Three Minute Thesis (3MT)	
15:00	3-minutes thesis competition	
	Charpak Amphitheatre, LPNHE	14:00 - 15:30
16:00	Coffee break	
	Charpak Amphitheatre, LPNHE	15:30 - 16:20
17:00	Session: WP6 + WP3	
	Charpak Amphitheatre, LPNHE	16:20 - 17:50



DUPhy **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 !

Program – Day 3, October 21th

09:00	Session: Join DMLab - DUPhy	
10:00		
	Chapak Amphitheatre, LPNHE	09:00 - 10:30
	Coffee break	
11:00	Chapak Amphitheatre, LPNHE	10:50 - 11:10
12:00	Session: Join DMLab - DUPhy	
	Chapak Amphitheatre, LPNHE	11:10 - 12:30
	End of DUPhy GDR meeting	
	Chapak Amphitheatre, LPNHE	12:30 - 12:35

**Joint session with DMLab
~100 participants**

no lunch offered to DUPhy participants

Towards a sustainable meeting



We made an effort to make this meeting eco-friendly

- **Lunch** at the campus canteen (no catering with plastic, paper, no plastic bottles or cans, etc.)
- Coffee breaks with **reduced amount of plastic**
- **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)
- No gadgets

Sorry for the last-minute changes

All demonstrations should look like this...

