IRL PPC

Particle Physics & Cosmology International Research Laboratory

Newsletter Fall 2025

Edito

Dear colleagues,

As we move into the fall season, the IRL PPC is entering an especially dynamic period of activity. We've had the pleasure of welcoming **Luca Scotto Lavina** over the summer and more colleagues will join us in the coming weeks. In November, EFI will host a colloquium by **Antoine Kouchner**, and later that month, we will celebrate a major milestone: the **official signing of the IRL PPC agreement** on November 19 at the University of Chicago, in the presence of CNRS CEO Antoine Petit and UChicago President Paul Alivisatos.

This fall also brings new funding and mobility opportunities for our community. The **CNRS–UChicago Joint PhD Call** (deadline November 2), **FACCTS Grants** (deadline February 3, 2026), and **IIRP Faculty Grants** continue to strengthen our transatlantic collaborations. On the mobility side, I would like to highlight the **Chateaubriand**, **Fulbright**, and the brand-new **Lafayette Fellowship** programs — each offering unique support for students and researchers between France and the U.S.

Finally, I'm delighted to share that **Christelle Roy**, Director of CNRS Nuclei and Particles, and **Jan Matas**, Director of the CNRS Office in Washington, visited campus in September, meeting with UChicago leadership and our IRL PPC partners to discuss the next steps of our collaboration.

Enjoy this issue — and thank you for helping make the IRL PPC such a collaborative community.

Warm regards,
Cédric Cerna
Director, IRL PPC

Ongoing and Forthcoming Calls

Joint PhD call

- **CNRS-UChicago Joint Research Program (2027-2029)**

  ▪ Funds up to 3 years of a PhD fellowship on the CNRS side; and funds mobility expenses for each team over a period of three years.
  ▪ Requirement : a CNRS PI and a UChicago (or CASE associate) PI.
  ▪ Submissions dates : from September 22 to November 2, 2025
  Website : https://uchicago.inforeadv4.com/#competitionDetail/1994579

Research Partnerships

- **France and Chicago Collaborating in The Sciences (FACCTS)**

  ▪ The FACCTS program provides seed funding for new and potentially fruitful project-based collaborations.
  ▪ Submission dates : October 14, 2025-February 3, 2026
  ▪ Website : https://fcc.uchicago.edu/faccts/

- **UChicago International Institute of Research in Paris (IIRP) Grants**

  ▪ In your collaborations between UChicago and CNRS, don't forget to consider the IIRP Faculty Grants, which support travel and research activities conducted on French soil. It may be very complementary of a FACCTS grant.
  ▪ Website : https://centerinparis.uchicago.edu/research-institute/iirp-faculty-grants

Student and Scientists Mobility

- **Châteaubriand Fellowship**

  ▪ For PhD students in STEM or SHS enrolled in a US university to conduct part of their research in France in a structure of excellence
  ▪ 4 to 9 months - between September and April of the following year
  ▪ Travel & Living expenses in France and Health Insurance
  ▪ Annual call for applications from October 8th 2025 to January 25th 2026
  ▪ Website: https://www.chateaubriand-fellowship.org

- **Lafayette Fellowship (New program – Call opens in September 2025)**

  ▪ The Lafayette Fellowship will enable American students to pursue Master's-level studies at France's most prestigious academic institutions, while taking part in a unique program of leadership, cultural immersion, and mentorship.
  ▪ 1 year fellowship - July 2026 to June 2027
  ▪ Travel & Living expenses in France and Health Insurance
  ▪ Annual call for applications from October to January
  ▪ Website: https://lafayette.villa-albertine.org

- **Fulbright Fellowship**

  ▪ For American researchers or students wishing to conduct research or study in France and vice versa
  ▪ Website (EN) : https://us.fulbrightonline.org/
  ▪ Website (FR) : https://fulbright-france.org/en

Visitors

Summer 2025: Luca Scotto Lavina (LPNHE, CNRS – Université Paris Cité)



Luca Scotto Lavina, CNRS Director of Research and leader of the XENON group at LPNHE, is a long-time contributor to the search for dark matter using dual-phase xenon detectors. As co-lead of the XENONnT computing group, he has spearheaded the project's cyber-infrastructure and data management for over 15 years. During his summer visit to the University of Chicago, he worked with Luca Grandi and the local computing team to advance XENONnT's data handling and analysis tools, particularly through **Rucio-based data management** and discussions on the future of GRID computing for next-generation astroparticle experiments. The LPNHE–UChicago collaboration also focuses on understanding background processes relevant to dark matter and neutrino searches.

October 2025: Olivier Deligny (IJCLab, CNRS – Université Paris Saclay)



Olivier Deligny, senior researcher at CNRS/IN2P3 and member of IJCLab, explores the origin of ultra–high-energy cosmic rays and the nature of dark matter beyond the WIMP paradigm. A long-time member of the Pierre Auger Collaboration, he has contributed to landmark results on cosmic-ray anisotropies, energy spectra, and air-shower physics. He also investigates hidden-sector extensions of the Standard Model and super-heavy dark matter. During his visit to the University of Chicago, he will work on the **DAMIC-M** experiment (Dark Matter in CCDs at Modane), which probes dark matter–electron interactions in the MeV–GeV mass range. His stay will focus on finalizing data acquisition tools and strengthening collaboration on theoretical studies of hidden-sector particles, helping to define the next physics goals of the experiment.

Fall 2025: Laura Zambelli (LAPP, CNRS – Université Savoie Mont Blanc)



Laura Zambelli is a CNRS researcher at the Laboratoire d'Annecy de Physique des Particules (LAPP, CNRS – Université Savoie Mont Blanc), specializing in long-baseline neutrino oscillation experiments. After a PhD at LPNHE (Paris) focused on neutrino flux predictions for T2K using NA61/SHINE data, she worked at KEK (Japan) on hadroproduction and liquid argon detector development. At LAPP, she has been deeply involved in WA105 and DUNE, contributing to dual-phase and, more recently, vertical-drift LArTPC technologies—now central to the first DUNE far detector module planned for 2027. She currently serves as **ProtoDUNE analysis convener**. Laura will come to join the neutrino group at the Enrico Fermi Institute from October 17th to November 20th.

Seminar

Upcoming Colloquium – November 17, Enrico Fermi Institute
Speaker: Antoine Kouchner (APC Laboratory, CNRS – Université Paris Cité)
Title: Fishing for Neutrinos in the Mediterranean Sea



Antoine Kouchner will present the latest advances in neutrino astronomy, tracing the legacy of the ANTARES undersea telescope and the rise of its successor, KM3NeT, now being deployed in the Mediterranean. The talk will explore how KM3NeT's two detectors—ORCA (France) for neutrino oscillation studies and ARCA (Italy) for cosmic neutrino detection—are opening new frontiers in high-energy astrophysics. Among recent milestones is the detection of a 120 PeV neutrino candidate, one of the most energetic ever observed. The colloquium will highlight how these efforts illuminate some of the most extreme environments in the Universe.

Events

Christelle Roy's Visit at the University of Chicago (September 10-11, 2025)



UChicago Global and the CNRS-UChicago International Research Laboratory for Particle Physics and Cosmology (IRL PPC) were delighted to host Dr. Christelle Roy, Director of CNRS Nuclei and Particles, and Dr. Jan Matas, Director of the CNRS Office for the United States and Mexico, during their visit to Chicago on September 10-11. While on campus, Dr. Roy and Dr. Matas met with members of University of Chicago leadership, faculty affiliated with the IRL PPC, representatives of the France Chicago Center as well as Ms. Charlotte Montel, Consul General of France in Chicago.

IRL PPC Agreement Signature (November 19th, 2025)

The IRL PCC agreement will finally be signed officially on November 19th at the University of Chicago. The three partner institutions are the University of Chicago, the CNRS and the Université Paris Cité. The event is organized by UChicago Global under the umbrella of the IRC Discovery. Stay tuned for the official announcement and event organization.

Stay Connected

Website: https://ppc.in2p3.fr
LinkedIn: IRL PPC on LinkedIn