

# Fermilab User Support Programs

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w/ help from Bo Jayatilaka and Joseph Zennamo

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# What are User Support Programs?

- DOE-funded programs that enable Fermilab Users to spend significant time at Fermilab to conduct research with Fermilab scientists and other Users.
- Primarily aimed at graduate students and above.
- The programs are not meant to:
  - Serve as temporary employment
  - Be used for short (few day) visits to the Lab
  - Support undergraduate students (we have many internships!)

# LHC Physics Center (LPC) programs

- **LPC Distinguished Researchers (DR)**: flagship program of the LPC
  - Current and future leaders in CMS; responsible for projects at the LPC
    - Leading roles in nearly all LPC events
  - Award provides partial support for ~50% time at the LPC; Typically 12-15/year
    - Junior (postdoc) and senior (faculty) categories
    - Includes a travel award
    - Many choose to stay resident at the LPC beyond their DR term(s)
- **Graduate Scholars (GS)**
  - Exceptional PhD students at USCMS institutions
    - Support (stipend) for spending ~1 year at the LPC pursuing research towards their PhD
- **Guest and Visitor (G&V) program**
  - Facilitates CMS members to spend time at the LPC working on targeted projects
    - Detector, upgrade, and/or software and often with a physics component

# 2023 LPC Distinguished Researchers and Graduate Scholars

## Distinguished Researchers



**Sridhara Dasu\***  
UW, Madison



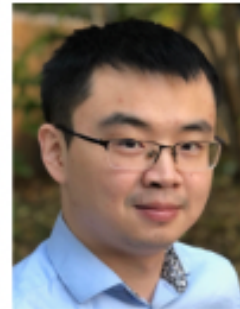
**Daniel Diaz**  
UCSD



**Jennet Dickinson**  
FNAL



**Michael Krohn**  
Minnesota



**Jingyu Luo**  
Brown



**Garyfallia (Lisa) Paspalaki**  
Purdue



**Juska Pekkanen\*\***  
Buffalo



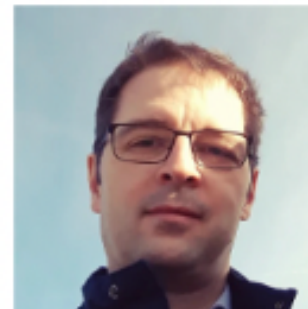
**Deborah Pinna**  
UW, Madison



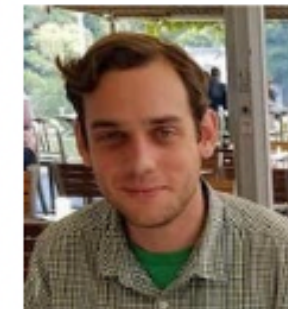
**Titas Roy**  
UIC



**Ozgur Sahin\***  
CEA Saclay



**Robert Schofbeck\***  
HEPY



**Nick Smith**  
FNAL



**Daniel Spitzbart**  
Boston U.



**Nadja Strobbe\***  
Minnesota



**Jonathan Wilson**  
Baylor



**Fengwangdong Zhang**  
UC Davis



**Jingyu Zhang**  
Florida State

\*Senior DR  
\*\*Partial year (left CMS)

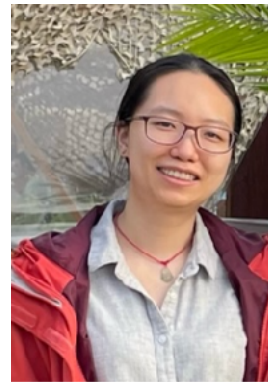
## Graduate Scholars



**Raghav Kansal**  
UCSD



**Ryan Kim**  
FSU



**Wei Wei**  
UC Davis

# Neutrino Physics Center (NPC) Fellows

## 2023 NPC Fellows

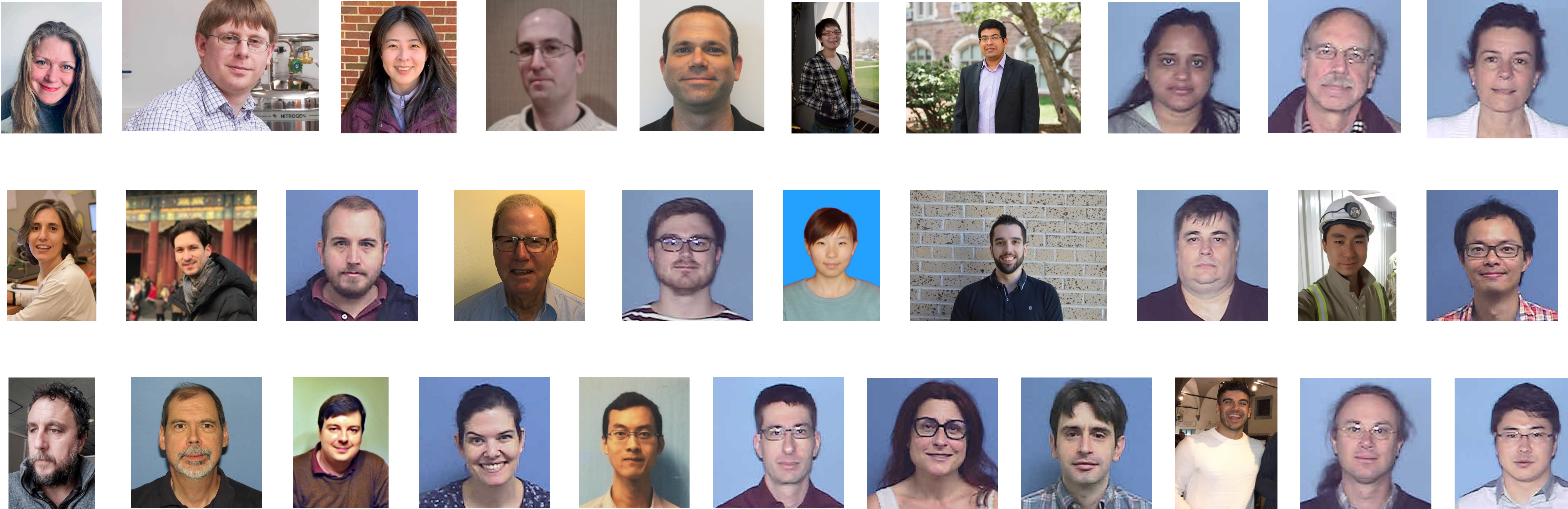
**Una Alberti**  
**Rodrigo Alvarez Garrote**  
**Pablo Samuel Barham Alzas**  
**Gabriela Barenboim**  
**Kaushik Borah**  
**Dan Carber**  
**Yifan Chen**  
**Peter Denton**  
**Rory Edwards**  
**Panos Englezos**  
**Stephen Greenberg**  
**Chris Hilgenberg**  
**Joachim Kopp**  
**Pantelis Melas**  
**Guadalupe Moreno Granados**  
**Yoshikazu Nagai**  
**Lan Nguyen**  
**Bruno Pereira Ferrazzi**  
**Christoph Ternes**  
**Jure Zupan**

- This program aims to bring the international neutrino community to Fermilab to engage with the neutrino community for short-to-medium visits
  - Supports both experimentalists and theorists
  - Stays aim to be between 2 weeks and 6 months. Average stay is ~3.5 months.
  - In total, 135 scientists have come to the lab through this program.
- The awards aim to bring a large cohort of 10-15 scientists biannually to the lab supporting their travel and per diem.

# Intensity Frontier Fellowships

- High-profile award that enables established researchers to spend more time at Fermilab to engage with Laboratory scientific and engineering staff in novel research.
- Tracks:
  - **Track 1 (Standard)** : Support for experimental or theoretical researchers wishing to pursue novel concepts with Fermilab scientific staff to enhance or strengthen the current program at Fermilab.
  - **Track 2 (Transition)** : Support for researchers transitioning from outside the field of the Intensity Frontier, eg from the Energy Frontier, Cosmic Frontier, Nuclear Physics, etc.
  - **Track 3 (Collaboration Support)** : Support for researchers who play a critical role in experiment operations. Examples: spokespeople, analysis coordinators, run coordinators, etc.
- For Ph.D. or equivalent scientists and engineers working in experimental or theoretical particle or nuclear Physics
- Successful candidates will be resident at Fermilab for 50% or more of the duration of the fellowship.

# Some Past Intensity Frontier Fellows



• 2023 awardees will be selected soon

# Cosmic Physics Center Fellowships

- Fellowships to outstanding researchers in the areas of cosmology, particle astrophysics, and other topics in the Cosmic Frontier.
- Tracks:
  - **Track 1**: Support for experimental or theoretical researchers wishing to pursue novel concepts with Fermilab scientific staff to enhance or strengthen the current program at Fermilab.
  - **Track 2** : Support for researchers transitioning to the Cosmic Frontier from other fields, e.g., from the Energy Frontier, Intensity Frontier, Nuclear Physics, etc.
  - **Track 3** : Support for researchers seeking hands-on experience with instrumentation or who play a critical role in R&D, projects, or operations.
- For Ph.D. or equivalent scientists and engineers working in experimental or theoretical particle or nuclear Physics
- Successful candidates will be resident at Fermilab for 50% or more of the duration of the fellowship.



# International Student Program

- **Long-term Thesis Research Program** : graduate students come to the laboratory for a period of six-months or more (up to 3 years) to complete work associated with their Masters or Ph.D. thesis projects.
- Students are supervised and co-mentored by a Fermilab Scientist
- Over the past decade, most students have come from Latin America and India.
- Participation in this program requires an agreement between an institution (eg, university) and Fermilab via Fermilab's Office of International Engagements.

# Applications

- “When” to apply depends on funding availability. Funding for many programs is not decided until well into the fiscal year.
- Program application rounds are announced via emails to spokespeople of collaborations and theory group leaders, posts in INSPIRE, and other print and online media. Websites are updated when new application rounds open.
- Intensity Frontier and NPC Fellowship applications closed earlier this spring.
- CPC Fellowships are open now, until July 28, 2023.
- LPC Distinguished Researchers is open now, Graduate Scholars will open next month.
- All applications are reviewed and decided upon by committees of both Fermilab and non-Fermilab scientists.

**Thank you, we hope to see your application soon!**