ACADEMIC YEAR . 2023 - 2024

# ANNUAL NEWSLETTER

Department of Physics and Astronomy



André de Gouvêa, Eric Dahl, Michelle Driscoll, István Kovács, and Allison Strom at the Majors Dinner



Graduate Students spending the day ice skating at Maggie Daley Park

## Northwestern

Department of Physics and Astronomy

# This issue:

- Letter from the Chair
- New Faculty Introductions
- Faculty Announcements
- Faculty Retirement
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- Department Groups Year in Review
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- 2024 -2025 New Graduate Students
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#### Letter from the Chair

I am happy to introduce the new Annual Newsletter from the Department of Physics and Astronomy. The department continues to grow and evolve, exploring new research horizons, fostering the next generation of scientists, and advancing its broad education mission. Last year, we welcomed three new members of the faculty with broad scientific expertise. Our faculty continue to be recognized for the their world-leading contributions to research, having been the recipients of various prizes and honors from the American Physical Society and the American Astronomical Society, to name only a few. Faculty have also been recruited to leadership positions at the Weinberg College of Arts and Sciences and the Office for Research. Three of our faculty achieved milestones in the form of well deserved promotions while another two have recently retired. Art Schmitt's 40+ years in the department were celebrated in the Spring of 2023 and Bill Halperin's almost 50-year legacy will be feted later this month. Fortunately, both are expected to maintain a strong departmental presence for many years to come.

Our undergraduate and graduate students continue to shine and make the department proud. Among our recent graduates are a 2024 Global Rhodes Scholar and a 2024 Hertz Fellow. Over 30 graduate students were awarded their PhD in the last twelve months, and we are ready to welcome next-year's class. The Department continues to engage with the broader community through outreach events and public lectures, including the Heilborn and Sievert Lectures. Finally, this past February, the Department invited a Climate Visiting Committee from APS to evaluate our overall climate. This initiative is aimed at ensuring we provide, along with exquisite facilities and renowned faculty, a welcoming and safe environment for everyone who is excited about Physics and Astronomy (and for those who are not yet excited about Physics and Astronomy). I want to take the opportunity to thank everyone who has helped build, maintain, and improve the Department of Physics and Astronomy. I look forward to an exciting new academic year!

André de Gouvêa

The Department of Physics & Astronomy appreciates the generous support of your donations which have helped fund many of these events and activities. The department welcomes your donations, which can be easily made by clicking on the department website's "Make a Gift" button.

#### **New Faculty Introductions**

We would like to welcome and introduce our new faculty members. Assistant Professor of Instruction Angela Barragán and Assistant Professor Lena Murchikova joined us in the Fall of 2023, Associate Professor Archana Kamal will be joining the department full time beginning September 2024.



#### Angela Barragán

Angela M. Barragán did her undergraduate studies in Colombia at the Universidad de Antioquia. Afterward, she obtained her Master's in Physics from the National Autonomous University of Mexico (UNAM) and completed her Ph.D. in Physics at the University of Illinois Urbana-Champaign. Before joining Northwestern, she worked as a postdoctoral scholar at the University of Chicago until July 2023. Her research in computational biophysics lies at the interface between physics, biology, and chemistry. She uses computational tools such as molecular dynamics simulations and quantum chemistry calculations to unveil complex details of enzyme reaction mechanisms. Her research has led to the elucidation of atomistic features of a relevant enzyme for photosynthesis and the inhibition mechanism of an anti-cancer drug when it targets a therapeutic protein. Since her undergraduate years, she has participated in multiple outreach activities that aim to motivate young students to follow basic sciences. Angela is passionate about teaching Physics and is deeply committed to her students' learning.

#### Lena Murchikova

(E)Lena Murchikova is an astrophysicist interested primarily in supermassive black holes, their accretion, variability, feeding, and multiphase feeding. Her research goal is to achieve such a level of accuracy of black hole accretion models that study fundamental gravitational physics with astrophysical black holes becomes possible. To this end Lena and her group pursue problems in the dark areas between well-established topics, and employ a combination of observations, pen-and-paper theory, and simulations to tackle them. Earlier in her career Lena worked on neutrino physics, string theory, and conducted experiments with photonic crystals. Outside of research, Lena enjoys mountaineering, flying small planes, and (drone) photography.





#### **Archana Kamal**

Archana Kamal directs the QUantum Engineering Science and Technology (QUEST) Group, with a focus on both fundamental and applied aspects of quantum information processing. She completed her pre-doctorate education in India -- B.Sc. (Honors) in Physics from St. Stephen's College, Delhi and Master's in Physics from Indian Institute of Technology Delhi - before moving to Yale University where she received her M.Phil. and Ph.D. degrees in Physics in 2010 and 2013 respectively, followed by a postdoctoral stint at MIT. Her research led to new designs of noise-resilient artificial atoms (or qubits) and new protocols for high-efficiency information routing and nonreciprocal amplification, which are now routinely employed in many laboratories around the world. Some of the current themes pursued by her group include scalable entanglement stabilization and autonomous error correction, quantum-limited amplification and readout, and applications of quantum information concepts to tackle questions in early Universe cosmology, condensed matter and thermodynamics. Her contributions to nonreciprocal quantum signal processing were recognized by MIT Technology Review with a TR35: Global Innovator Award in 2018. She is also the recipient of the 2021 AFOSR Young Investigator Award and 2021 NSF CAREER Award.

# **Faculty Announcements**



# Wen-fai Fong Awarded the 2024 Lancelot M. Berkeley Prize for Meritorious Work in Astronomy

Professor Fong was honored "for her leadership of foundational work that is greatly advancing our understanding of explosive astrophysical transients and their host galaxies. These transients include short gamma-ray bursts, which are powerful flashes first seen as high-energy light; fast radio bursts, which are brief flashes of radio emission; and electromagnetic counterparts to gravitational-wave signals".

# Wen-fai Fong Honored with the Steward Observatory's 2024 Marc Aaronson Prize

Professor Fong was recognized for her "pioneering, multiwavelength observations characterizing fast transients and the galaxy environments that host them". The Marc Aaronson Prize recognizes promising early-career astronomers who match Marc's spirit of joy and innovation.

### Jerry Gabrielse Awarded the 2024 APS Ramsey Prize

The honor is shared with David DeMille (Chicago) and John Doyle (Harvard) "For pioneering work in molecular physics, cooling, and spectroscopy that has profoundly advanced the search for the electric dipole moment of the electron, and for placing stringent constraints on modifications to the Standard Model in a tabletop experiment".





Enectali Figueroa-Feliciano named Associate Vice President of Research



Michael Schmitt named Associate Dean of Research and Graduate Studies

# **Faculty Announcements**



#### **Jens Koch Named APS Fellow**

Prof Koch has been named an APS Fellow for providing theoretical and numerical frameworks for modern superconducting qubits, as well as pioneering contributions to circuit quantum electrodynamics and quantum optics.

### JJ Carrasco earns 2024 Frontiers of Science Award on "The Duality Between Color and Kinematics and its Application" Paper

The International Congress for Basic Science honors top research, with an emphasis on achievements from the past ten years which are both excellent and of outstanding scholarly value. For the 2024 selection, scientific works in both basic and applied research are chosen in 42 areas of the three basic science fields represented at the ICBS.



# Congratulations to the faculty who were promoted for the upcoming 2024-2025 Academic Year!

Michelle Driscoll was promoted to Associate Professor with tenure

Claude-André Faucher-Giguère was promoted to Full Professor

Andrew Geraci was promoted to Full Professor

# FACULTY RETIREMENT

Thank you for your many years of service!

## **Art Schmidt**

In May of 2023, we celebrated the retirement of Art Schmidt, after over 40 years of service. Faculty, students and staff gathered to celebrate Art's invaluable contributions to the department. He continues to run the department's lecture demonstrations throughout this academic year.











Professor Bill Halperin retired at the end of this academic year.
Watch for Bill Fest 2024 announcements and check out next year's newsletter for photos.

# CONGRATULATIONS Undergraduate Physics Major Graduates!

Themi Bournias Spencer Brown Arya Bulusu Maria Fernandez Davila Pastor Chloe Fisher Jacob Garcia Felix Haba Elijah Hansen Blanka Jarmoszko Jiahan Jiang Evan McLoughlin Sam Nielsen Elizabeth O'Brien Shilin Ray Ethan Rengifo Nia Robles Del Pino Valeriia Rohoza Aryeh Silver Matthew Sinclair Albert Song Kyle Soni Sherry Wang Seca Widyatmodjo

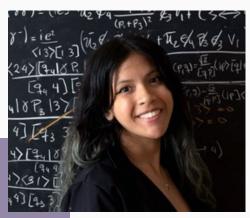
# CONGRATULATIONS Physics and Astronomy Graduate Student Graduates!

Ahmed Alrabiah, MS Lindsey Byrne, PhD Shu Chen, MS Saanika Choudhary, MS Chethn Galla, PhD Monica Gallegos Garcia, PhD Alex Gurvich, PhD Bingjie Hao, PhD Jason He, PhD Charles Kimball, PhD Patrick Krantz, PhD Dennis Lee, PhD Jinyang Li, PhD Xincong Liu, MS Yihan Liu, PhD Chloe Lohmeyer, PhD Joseph McCourt, PhD Joe Michail, PhD Andrea Minot, MS

Serena Mosely, MS Man Nguyen, PhD Anya Nugent, PhD Yeyang Pan, MS Pradyumna Parshi, MS Nic Pavao, PhD Jennifer Sanchez, MS Genevieve Schroeder, PhD Huei Sears, PhD Candice Stauffer, PhD Xingzhi Wang, MS Yuxin Wang, MS Newlin Weatherford, PhD Jean Weill, PhD Wenxin Xie, MS Yian Xu, MS Hongfei Zeng, PhD Tainpu Zhao, MS



#### **Student Announcements**



Nia Robles Del Pino

## Nia Robles Del Pino Named 2024 Global Rhodes Scholar

Nia is Northwestern's 20th Rhodes Scholar and the University's first student to win the Rhodes Global Scholarship. In another first: Robles Del Pino is the first Argentinian to receive the prestigious honor! Nia is part of Professor JJ Carrasco's "Amplitudes and Insights" group where she works as an undergraduate researcher focusing on Quantum Field Theory.



Valeriia Rohoza, Evan McLoughlin, Themi Bournias, Sherry Wang, Shilin Ray, Juan Barrera Lopez, Alyssa Matthews, Will Engedal, Audrey Clarendon (left to right)

#### Departmental Honors Recipients

Themi Bournais
Shilin Ray
Nia Robles Del Pino
Valeriia Rohoza
Sherry Wang

Alumnus Andrew Laeuger '23 Named 2024 Hertz Fellow

# 2023 - 2024 Undergraduate Departmental Awards

Outstanding Undergraduate
Thesis Research
Sherry Wang

Career Award Sherry Wang

Junior Career Award Will Engedal

#### **Physics and Astronomy Scholars**

Juan Barrera Lopez Audrey Clarendon Evan Gern Alyssa Matthews



Andrew Laeuger

## **Student Announcements**



Nabeel Rehemtulla, Nico Bers, and Yanpei Deng (left to right)

# 2023 - 2024 Outstanding Teaching Assistants

Outstanding Lab TA Brian Seper

Outstanding Discussion TA
Austin Marga

Outstanding Discussion TA
Lillian Soucy

Thank you to all of our Teaching Assistants, we appreciate your hard work!

#### Rapid Fire Research Winners

On Friday, May 31st the Physics and Astronomy Department held our annual Rapid Fire Research. Students presented their research in 4 minutes or less and were judged by Physics and Astronomy Faculty and Postdocs.

<u>1st Place</u>: Yanpei Deng, "Tuning Electron Correlations in KTaO3"

<u>2nd Place</u>: Nabeel Rehemtulla, "Finding Supernovae with Artificial Intelligence"

<u>Honorable Mention</u>: Nico Bers, "A Symphony of Binary Black Hole Collisions: Studying Cosmic Noon with Gravitational Wave Backgrounds"



Faculty TA Coordinator: Gayle Ratliff with Outstanding TAs Lillian Soucy, Austin Marga and Brian Seper (left to right)

#### **Student Announcements**

Nicolas Pavao received an Office of Science Graduate Student Research Award (SGSR) from the U.S. Department of Energy Office of Science

Zhiheng Sheng received an Office of Science Graduate Student Research Award (SGSR) from the U.S. Department of Energy Office of Science

Joe Michail received the Illinois Space Grant Consortium Fellowship

Rachel Zhang received a pre-doctoral position in the Center for Computational Astrophysics at the Simon's Foundation Flatiron Institute

Jillian Rastinejad received the Northwestern Presidential Fellowship

# 2024 Research Expo and Arts Fest

The Office of Undergraduate Research hosted a research festival where several P&A undergraduates presented their research

Nico Bers: "A Symphony of Binary Black Hole Collisions: Studying Cosmic Noon with

Gravitational Wave Backgrounds" Faculty Advisor: Vicky Kalogera

Daniel Campos: "Testing the Feasibility of Using Acoustic Sensors for Bubble Detection

for the Scintillating Bubble Chamber Experiment"

Faculty Advisor: Eric Dahl

Yiying (Grace) Liu: "Spectral Characteristics and Exciton Dynamics of Mixed-

dimensional Organic/Inorganic Heterostructures"

Faculty Advisor: Nathaniel Stern

Alyssa Matthews: "Acquiring Positrons for the Most Precise Test of Matter-Antimatter

Asymmetry in Leptons"

Faculty Advisor: Gerald Gabrielse

Shilin Ray: "Machine Learning for Quantum Sensor Data Analysis in Dark Matter

Search"

Faculty Advisor: Daniel Baxter

# Department Groups Year in Review

#### Physics and Astronomy Graduate Student Council (PAGSC)

This academic year, the Physics and Astronomy Graduate Student Council (PAGSC) hosted around 20 events. The year started off strong with the Fireboat Cruise on Lake Michigan with a record attendance of about 100 graduate students. The Fall saw wonderful events such as a Thanksgiving dinner hosted by the International Student Committee and a welcome mixer for new graduate students organized by the Peer Mentorship Committee. Many social activities happened during the winter quarter, including the traditional ice skating at Maggie Daley Park as well as new additions such as game night at CIERA and a Pizza and Paint gathering. This year was a big success in revitalizing PAGSC's outreach efforts thanks to the Outreach Committee members who planned multiple fantastic Scientific Communication workshops. PAGSC kicked off the summer with an outing to the Chicago Botanic Garden and is looking forward to another great academic year.

#### **Gender Minorities In Physics (GMIP)**

GWiP and WiP have been doing great work to strengthen our community, and to complement these efforts, Allison Strom and Michelle Driscoll spearheaded the creation of a department-wide Gender Minorities in Physics affinity group. GMiP organized "all-hands" mixers in the winter and spring quarter in AY2023-2024. These events provide an opportunity for gender minorities in P&A at all levels (faculty, postdocs, students) to meet, chat, and build new relationships. We look forward to continuing the effort and growing our community in the coming academic year.



Graduate students at the PAGSC-hosted Fireboat Cruise

#### **Graduate Womxn In Physics (GWIP)**

GWIP is dedicated to supporting and empowering the physics and astronomy graduate student community of minority genders. Our mission is structured around three core pillars: community building, advocacy within the department, and professional development. Over the past year, GWIP organized eight events to promote these goals. These included three community-building events featuring activities like mug painting and board games, two advocacy meetings to address the unique challenges our community faces, and three professional development sessions with guest speakers from minority genders who are further along in their careers





GWIP participating in community building events

# Department Groups Year in Review

#### We're In Physics (WIP)

We're In Physics (WIP) is a student organization established in 2021 for gender minorities in physics. This past year, WIP sent 14 students to the annual APS Conferences for Undergraduate Women in Physics (CUWiP) and continues to host a mentorship program with Northwestern's SPS (Society of Physics Students). WIP has also organized many fun and informative events, including mixers, grad school panels, faculty talks, and movie nights!



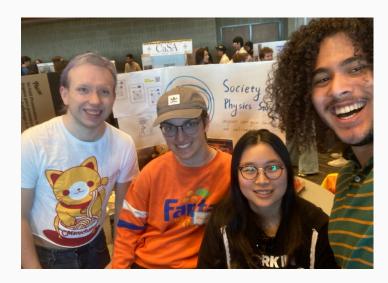
WIP Members attending the CuWIP Conference

#### **Equity and Inclusion Committee**

The Equity and Inclusion Committee hosted members of the American Physical Society in February for a climate survey. The APS members met with students, post-docs, faculty, and staff to brainstorm ways to enhance the department and to better collaborate and communicate. Prior to the APS visit, the committee was hard at work organizing town halls for students, post-docs, faculty, and staff in preparation. The climate survey committee produced a set of recommendations which we are excited to work on to better the department.

#### Society of Physics Students (SPS)

The Society of Physics Students (SPS) serves as a vibrant community and home base for physics students and enthusiasts alike. We blend preprofessional activities with social events, offering everything from casual professor chats about their research and life, to Lakefill bonfires, and telescope nights. We also collaborate with We're in Physics (WiP) to run a mentorship program, pairing younger students with experienced mentors to guide them through their physics journey. For this coming year, in addition to continuing these traditions, we aim to create more bonding opportunities, support networks, and fun events. Suggestions are always welcome! Please reach out to <a href="mailto:sps@u.northwestern.edu">sps@u.northwestern.edu</a> with any questions or to join our listsery.



SPS Executive Board at Fall Student Organization Fair

## **Department Events Year in Review**

#### **Sievert Prize Lecture Series**

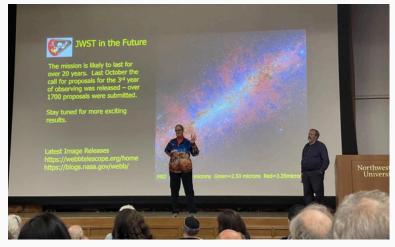
This year's Sievert Prize Lecture Series was presented by Arthur Montanari, a researcher working in the Center for Network Dynamics. The series titled "Networks: from brains and Quantum Internet to Climate Change" was a great success, bringing in a crowd each week throughout the Winter Quarter. Recordings of the lectures are available on the department website.



Arthur Montanari presenting during the Sievert Lecture Series

#### **Heilborn Lectures**

Marcia J. Rieke, principle investigator for the near-infrared camera (NIRCam) on the James Webb Space Telescope, Regents Professor of Astronomy at the University of Arizona and Elizabeth Roemer Chair in the Steward Observatory presented this year's Heilborn Lectures. Professor Reike presented two academic talks and one public lecture. Recordings of the lectures are available on the department website.



Marcia J. Rieke giving the Heilborn Public Lecture (photo credit: Daily Northwestern)

# Networks:

From Brains and Quantum Internet to Climate Change



Arthur Montanar



Marcia J. Rieke

The Undergraduate Inreach Committee hosted multiple events this year: Fall Welcome, Physics Horizons, How to Apply to Graduate School and a Research Mixer.

#### **Fall Welcome**



Nate Stern and Michelle Driscoll make ice cream with liquid nitrogen for the Fall Welcome

### **Physics Horizons**

This year's special seminars for undergraduate students were presented by Professors André de Gouvêa, Alison Strom and István Kovács. Professor de Gouvêa presented his talk "The Brave nu World", Professor Strom presented her talk "Sequencing the DNA of galaxies with large telescopes" and Professor Kovács presented his talk titled "The interconnected physics of complex systems".



Professors de Gouvêa and Carrasco at the Fall quarter Physics Horizons

# How to Apply to Graduate School Panel

In the Spring Quarter, faculty and graduate students held a panel discussion for undergraduates about how to apply to graduate school.



Professors Shane Larson, Timothy Kovachy, Jens Koch, Chris Jacobsen and Graduate Students Olivic Bitters, Austin Marga and Carin Gavin (left to right)



Undergraduate students attending the Graduate School panel discussion

#### **Undergraduate Research Mixer**

During the Winter Quarter, undergraduate students were invited to learn about doing research as an undergraduate and talk with faculty about lab positions in their research groups.



Ace Chisholm, Outreach Coordinator for Office of Undergraduate Research, presents at the Undergraduate Research Mixer event.

#### **Majors Dinner**

At the end of the academic year, we celebrated our Physics Majors and Minors at Five and Dime.



Sam Nielson,Ethan Rengifo, Seca Widyatmodjo, Spencer Brown, Jacob Garcia, Shilin Ray, Themi Bournias, Sherry Wang, Valeriia Rohoza (left to right)



Professor Kovachy talks to undergrads at the Research Mixer



Students, faculty and staff mingle at the Maiors Dinner



Students listen to Nate Stern speak at the Majors Dinner

#### **Graduate Student Appreciation Week**

Alongside The Graduate School, the department took a break to show our grad students appreciation with a breakfast.





Natalie Love, Florence Binny, Anya Abraham, Parth Bhatnagar, Hardeep Singh, Dustin Greenwood (left to right)

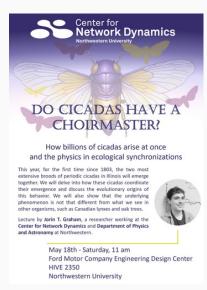
#### Open House

In the Spring Quarter, prospective students gathered for our Open House. Faculty, graduate students and staff introduced the prospective students to Northwestern and showcased the many advantages of joining the department. We are excited to welcome our new cohort of PhD students in September.



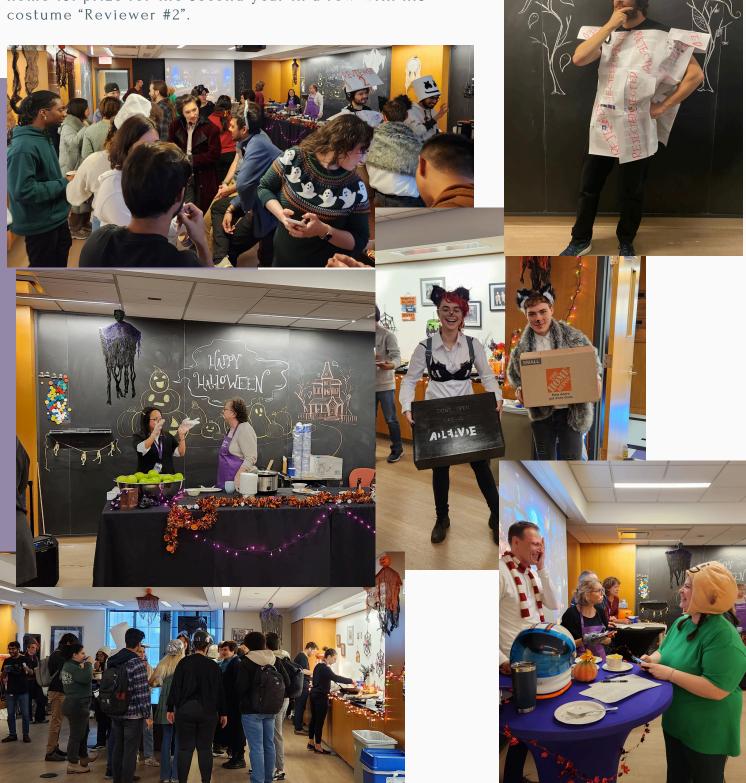
The Food Truck for the Physics Mind paid a visit to the Northwestern campus, coming directly from the APS Meeting. The 44 foot long custombuilt trailer houses 26 advanced laboratory physics experiments with expert physicists on board to give demonstrations. It was a real treat!

The Center for Network Dynamics (CND) hosted a Saturday lecture "Do Cicadas have a Choirmaster" presented by PhD graduate student and researcher in the CND, Jorin Graham



#### **Fall Celebration**

We had a big crowd this year at our Fall Celebration. The staff made treats, there was a caramel apple bar and a very competitive costume contest. George Winstone took home 1st prize for the second year in a row with his costume "Reviewer #2".





Our holiday party brought the entire department together for delicious food, interesting raffle prizes and our annual cookie contest. Anya Abraham won 1st prize for her Maple Brown Sugar cookies!



## Mardi Gras

During the Spring Quarter, the department gathered to celebrate Mardi Gras with king cakes, paczkis, and games.



# Graduation



Graduating PhD student Charles Kimball at the hooding ceremony with Professor Vicky Kalogera (photo credit: Bonnie Robinson)



Professor Kovacs and graduate student Hardeep Singh use liquid nitrogen to make ice cream for the graduates and their families (above)





Graduate
Patrick
Krantz and
Vaso
Ventresca
posing for a
selfie on
Graduation
Day (left)



Weinberg College Convocation Ceremony (photo credit: Randy Belice)



P&A Staff Member Mariusz Godzisz volunteering at the Weinberg Convocation (left, photo credit: Randy Belice)



Sherry Wang and Valeriia Rohoza celebrating with friends and family at the Department Graduation Party (above)

## Physics and Astronomy in the Northwestern News

CLICK THE TITLE FOR THE FULL STORY IN NORTHWESTERN NOW

Black holes eat faster than previously expected: New finding might explain why quasars flare and fade so quickly

Bursts of star formation explain mysterious brightness at cosmic dawn: Intense flashes of light, not mass, resolve the puzzle of impossible brightness

First supernova detected, confirmed, classified and shared by Al: New artificial intelligence tool removes humans from entire search, discovery process

Physics grad student wins global photography competition; 'I love sharing the wonders of our universe with others through my astrophotography'

'Blob-like' home of farthest-known fast radio burst is collection of seven galaxies: Hubble Space Telescope reveals curious birthplace of record-breaking blast

Space-based gravitational-wave detector is adopted by European Space Agency; Northwestern astrophysicist is member of international team working on new detector

How billions of cicadas coordinate their emergence: 'Synchronization is now recognized as an important behavior across many domains'

The enemy of your enemy is, indeed, your friend. Physics confirms it.: New study is the first to use statistical physics to corroborate the 1940s social balance theory

Brain's structure hangs in 'a delicate balance': New finding appears to be universal across insects, mammals and humans

# Welcome to our incoming cohort of Physics and Astronomy Graduate Students!

<u>PhD Program</u> <u>Cohort</u>

Firas Abouzahr Charles Burton Andrea Ceja Crystal Coulson Jupiter Ding Darren Ding Nicole Flors Pawan Goswami Rishad Islam Vedant Kashyap Al Kucich Paul Nicholson Jinxuan Pei Yiting Pei Carlos Romero Ved Shah **Edward Skrabacz** Aswin Suresh Xiaohua Ye Melinda Yuan

<u>Masters Program</u> Cohort

Saketh Bhattiprolu Yaxi Chen Charles Fauver Christopher Hays Nathan Henry Kailai Jiang Nikita Khobotov Ting-Fa Liou Mingrui Liu Zeyu Ma Amartya Shah Jaden Sidhu Omkar Sridha Jayanth Tumuluri Muqing Wang Theodore Wecker Warit Wijitworasart Yuanjia Zhang Zixuan Zhang

# **Looking Ahead ...**

### **Bill Fest**

We will be hosting a weekend event honoring Bill Halperin's nearly 50 years of service at Northwestern on Friday, September 20th and Saturday, September 21st. We hope to see you there!



## **Upcoming Events:**

September 20th - 21st: Bill Fest

September 24th: 1st Day of Fall Quarter

October 28th: Fall Festival featuring our annual Halloween Costume Contest

December 4th: Department Holiday Party

January through February 2025: Sievert Lecture Series, speaker TBD

April 8th - 11th, 2025: Heilborn Lecture Series



Alain Aspect (photo credit: Stefan Bladh)

## **Heilborn Lecture Series**

The 2024 - 2025 Heilborn Lecture Series will be presented by Alain Aspect, winner of the 2022 Noble Prize in Physics, professor at the Institut d'Optique Graduate School and the École Polytechnique at Université Paris-Saclay, and research professor emeritus at CNRS, The French National Centre for Scientific Research. The series will be April 8th through 11th, 2025, additional details to come.

# **P&A Staff Hard at Work**

