# Yale Physics



# Friday, April 28, 2023

# **Events**

### Monday, May 1

- 10:00 am **Undergraduate Research Presentations:** *PHYS 470/PHYS 472 Students*, 15 12:00 pm minute research presentations, SPL 3rd Floor Lounge. Host: Charles Baltay & Charles Brown.
- 1:00 pm **Physics Special Event:** *Sigma Pi Sigma Induction Ceremony*, Yale College Classes of 2023 and 2024 Nominees, Yale University, SPL 3rd Floor Lounge. Host: Sarah Demers.
- 2:00 pm **HSTEM Poster Session:** Being Human in Stem (PHYS 107 / MB&B 107 / EDST 107) students, Short presentations of project work completed in this course, HLH17 101. Host: Rona Ramos. Light refreshments will be provided.
- 3:30 pm **Physics Special Event:** *Simon Mochrie Book Launch*, Simon Mochrie, Yale University, SPL 3rd Floor Lounge. Host: Sarah Demers. Light refreshments will be served.
- 4:00 pm **Molecular Biophysics & Biochemistry Seminar:** *Deconstruction and Reassembly of the Cell Division Machinery*, Andrea Musacchio, Max Planck Institute of Molecular Physiology, BASS 305. Host: Joe Howard.

### Tuesday, May 2

- 10:00 am **Undergraduate Research Presentations:** *PHYS 470/PHYS 472 Students*, 15 12:00 pm minute research presentations, SPL 3rd Floor Lounge. Host: Charles Baltay & Charles Brown.
- 2:00 pm 4:00 pm
  Undergraduate Research Presentations: PHYS 470/PHYS 472 Students, 15 minute research presentations, SPL 3rd Floor Lounge. Host: Charles Baltay & Charles Brown.
- 4:00 pm **High Energy Particle Theory Seminar:** *Balance Laws in Gravitational Twobody Scattering*, Massimiliano Riva, DESY, Hamburg, SPL 51. Host: Walter Goldberger.
- 7:30 pm Leitner Family Observatory & Planetarium Public Talk: Dark Energy in a Nutshell, Xinyi Chen, Yale University.

### Wednesday, May 3

- 10:00 am 12:00 pm
  Undergraduate Research Presentations: PHYS 470/PHYS 472 Students, 15 minute research presentations, SPL 3rd Floor Lounge. Host: Charles Baltay & Charles Brown.
- 11:00 am **Physics & QBio Hagoromo Hour:** An efficient Bayesian inference scheme for flocking models with behavioral inertia, Federica Ferretti, MIT, BASS 405. Host: Michael Abbott, Isabella Graf, and Mason Rouches.
- 12:00 pm Yale Quantum Institute Colloquium: Sources of athermal phonons in cryogenic detectors, David Moore, Yale University, YQI Seminar room + zoom. Host: Steven Girvin.
- 1:00 pm **Condensed Matter Theory Seminar:** *Josephson Junction Arrays as a Platform for Topological Phases of Matter*, Omri Lesser, Weizmann Institute of Science, SPL 51. Host: Benyamin Remez.
- 1:00 pm Solid State & Optics Seminar: *RIXS Studies on Charge Order Phenomena in Cuprate and Nickelate Superconductors*, Wei-Sheng Lee, Stanford University, ML 107 + zoom (passcode: 459071). Host: Yu He.
- 2:00 pm 4:00 pm
  Undergraduate Research Presentations: PHYS 470/PHYS 472 Students, 15 minute research presentations, SPL 3rd Floor Lounge. Host: Charles Baltay & Charles Brown.
- 4:00 pm **Department of Molecular, Cellular and Developmental Biology Seminar:** *Cellular replication: How can bacteria do more with less?*, Christine Jacobs-Wagner, Stanford University, BASS 305.

### Thursday, May 4

1:00 pm **NPA Seminar:** Chasing the Ghost Particle: Neutrino Astrophysics at the South Pole, Brian Clark, University of Maryland, College Park, WL 216. Host: Thomas Penny.

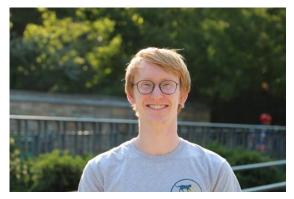
More events

# News



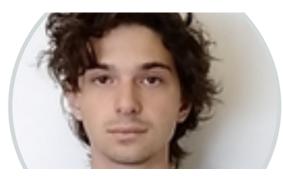
# **Congratulations Dr. Scanavini**

On Friday, April 7, 2023, Giacomo Scanavini successfully defended his thesis, "First measurement of neutral-current neutral pion production differential cross sections on argon" (advisors Bonnie Fleming and Karsten Heeger).





Ben McDonough, YC'24 Physics - Intensive major working with Steve Girvin, was interviewed by IBM Quantum as a member of Quantum Coalition, a loose syndicate of university quantum computing clubs working to build a global community of undergraduate quantum researchers.



# Rubinfien wins Goldwater scholarship

Julian Rubinfien, YC'24 double majoring in Mathematics and in Physics working with Ben Machta, is one of four Yale students, out of a pool of 413 U.S. college students, who were awarded a Goldwater Scholarship for the 2023-2024 academic year.



# 2023 Yale Physics Olympics

The 23rd Yale Physics Olympics (YPO) took place on April 15, 2023, at the Sloane Physics Laboratory. Fifteen teams from thirteen different schools attended, two from as far away as New Jersey.



# Helen Caines research in the news

Helen Caines, Wright Lab professor of physics, was interviewed by Jim Shelton of Yale News in the article "A physicist's journey to the 'critical point' and the 'strong force," discussing her search for a better understanding of subatomic phenomena.

More news

# Community





### Welcome Jennifer Ongley

Jen Ongley is the Chair's Assistant in Sloane Physics Lab. She comes to the Physics Department from the Yale Center for British Art, where she oversaw the Visiting Scholars program and event logistics for the Research Department. Born and raised in Madison, CT, she is always happy to offer a local's perspective on the New Haven areaparticularly the best lunch spots. Jen holds a B.A. in Liberal Arts from St. John's College, Annapolis, where she was President of her college's LGBT club and Co-Captain of the crew team. While her main focus was in the humanities, Jen also studied recreations of Faraday's cage and the quantum eraser experiment (among many others). In her free time, Jen enjoys reading, backpacking, digging in her garden, tending her absurd quantity of houseplants, and pretending to understand non-Euclidean geometry. She has one cat, named Missy, and also lives with a dog named Dilbert.

# **SPL Lost & Found**

For those that don't know, there is a Lost and Found in the Chair's Office. The items in these photos are what has been collected over the last AY. If you recognize any of these items, please collect them before going home for the summer. And un-collected items will be either disposed of or donated as appropriate. The Chair's office will add photos of items as they are collected to this Flickr album. If you have an item go missing or think you have left it behind somewhere, please check with Kirstin or Jen in the Chair's Office SPL 34.

### **Climate and Diversity Committee News**

#### 2023 World Tai Chi & Qigong Day

Saturday, April 29 West Haven Green Historic District 355 Main Street West Haven, CT 06516

Join us for World Tai Chi and Qigong Day on Saturday, April 29, 2023, on the West Haven Green in Connecticut! This is a global event celebrated in over 80 nations worldwide, and we're excited to be a part of it. The event is sponsored by the City of West Haven and the Milford Regional Chamber of Commerce. Event kicks off at 10 am! Sign up here.

#### Love146 Information Session

Friday, May 5 | 11 AM - 12 PM | Zoom | RSVP

According to the International Labour Organization, over 3 million children were trafficked in 2022. Please join us for an information session with Love146, where you will learn about the programs they offer, how to help or get involved, and resources for keeping kids safe online.

For over 20 years, Love146 has been developing survivor care, reintegration, and prevention programming all over the world.

If interested in joining the CDC, please contact Rona Ramos, Chair of CDC. You may contact the whole committee at physics-cdc@mailman.yale.edu

### Outreach



#### Yale's Open Labs run Science Café

Science Cafe is an outreach program run by the Open Labs that organizes science talks, demos, and experiments for local middle school students. Around 200 students attended Science Café last Saturday. Wright Lab graduate students Xiran Bai and Ben Siegel ran the electromagnetic and circuit demo station at the event.

The first Science Café audience was a select group of motivated and academically promising high school students from S.C.H.O.L.A.R., a 3 year program sponsored by Yale's Pathways to Science. Since then, Open Labs have held Science Café twice a year, getting to share science with many students.

# COVID-19 update

Yale COVID-19 Information - click here for updated information.

# **Opportunities**

#### **Faculty Positions**

Associate/Full Professor, Experimental Atomic, Molecular, and Optical Physics - Yale University

Assistant Professor in Biological Physics - Yale University

Assistant Professor in Experimental Nuclear Physics - Yale University

Assistant Professor in Astrophysics & Cosmology - Yale University

Assistant Professor, Applied Physics (Quantum Information Theory) - Yale University

Assistant Professor, Applied Physics (Experimental Condensed Matter Physics/Materials Science) - Yale University

Faculty and Associate Faculty Positions- Perimeter Institute

Associate Professor Position in Particle Astrophysics, Cosmology, and Gravitational Waves-University of California, Riverside (application open through **June 30, 2023**, anticipated start date of July 1, 2023)

Assistant Professor Position in Experimental Quantum Information Science - NYU (anticipated start date of **Sept. 1, 2023**)

#### **Postdoctoral Positions**

#### Postdoctoral Associate Position in Theoretical Physics - Yale University

#### **Graduate Student and Postdoc Research**

Dudley Observatory Astronomer - Siena College

Positions for postdocs and graduate students affected by the war in Ukraine - Perimeter Institute

<u>NRC Research Associateship Programs</u> - National Academies for Sciences, Engineering, Medicine (Online applications open as follows December 1 (closes February 1), **March 1** (closes May 1), June 1 (closes August 1), and September 1 (closes November 1))

#### **Undergraduate Research**

Research Assistant - Yale School of Medicine (contact Navin Kumarfor further information)

- Research Assistant Harm Reduction (send CV to Keyu Chen keyuchen2020@gmail.com)
- Research Assistant Data Analysis & Harm Reduction (send CV to Keyu Chen keyuchen2020@gmail.com)

Physics REU: Interactions of Matter, Light & Learning- Kansas State University (applications open December 2022, program dates May 29-August 4, 2023)

#### Meetings, Schools, Workshops, and Conferences

Black in Physics Career Development: Session 1. Tenure & Time Management, April 27, 2023.

Responsible AI In the Natural Sciences: a mini workshop, May 8, 2023 - Carnegie Mellon University. *Note: Savannah Thais is an invited speaker.* 

3rd Biennial NSF/GPAP Summer School on Plasma Physics for Astrophysicists, May 29-June 2, 2023 - Swarthmore College

Summer School in Statistics for Atronomers XVIII, June 5-9, 2023 - Penn State (deadline **May** 5, 2023)

Conference: Statistical Challenges in Modern Astronomy VIII, June 12-16, 2023 - Penn State (registration deadline **May 5, 2023**)

Black in Physics Career Development: Session 2. Every Semester Needs a Plan, June 22, 2023.

STAQ Quantum Ideas Summer School, June 9-23, 2023 - Duke University

The 3rd Condensed Matter Summer School, "Dynamics and Quantum Information in Manybody Systems", June 12-21, 2023 - University of Minnesota-William I. Fine Theoretical Physics Institute. *Note: Michel Devoret is one of the speakers*.

Boulder School for Condensed Matter and Materials Physics, "Non-Equilibrium Quantum Physics", July 3-28, 2023 - University of Colorado, Boulder. *Note: Steve Girvin is one of the lecturers.* 

Advanced Cyberinfrastructure Training for Modeling Physical Systems, June 14-July 7, 2023; Bootcamp June 14-16, 2023 - Rensselaer Summer Program (deadline **May 1, 2023**)

Physics of Life - CPBF Summer School, June 19-30, 2023 - Princeton University

2023 Summer School, June 25-July 15, 2023 - Wolfram (must by 18 or older by June 24, 2023 to apply)

2023 SLAC Summer Institute(SSI 2023), August 7-18, 2023 - Stanford University

2023 Dunlap Institute Summer School - Introduction to Astronomical Instrumentation, August 8-11, 2023 - University of Toronto

XVIII International Conference on Topics in Astroparticle and Underground Physics 2023, August 28-September 1, 2023 - University of Vienna, conference fees and registration (early fee deadline **July 1, 2023**; full fee deadline **August 15, 2023**). *Note: David Moore is an invited speaker*.

EXCESS23@TAUP, August 26, 2023 - University of Vienna

Young Astronomers on Galactic Nuclei - Instituto di Astrofisica Spaziale e Fisica Cosmica, October 18-20, 2023, apply here (application deadline **May 31, 2023**)

#### Grants, Fellowships and Scholarships

#### Graduate

The Department of the Airforce Science & Technology Fellowship Program

PhD Fellowship in Experimental Quantum Matter - Center for Quantum Devices (QDev) @ Niels Bohr Institute (deadline **May 7, 2023** with expected start date of September 1, 2023)



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For further information, or to contribute to the newsletter, please send email to Daphne Klemme. Alumni can add/update their information by clicking here.

This email was sent by: Yale University P.O. BOX 208109, New Haven, CT, 06520-8279 US

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