



The Physics Observer

Nov 6, 2023

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EVENTS

**Monday, November 6,
2023 - 4:00pm, PAA
A-102**
[Physics Colloquia:
Thermal and
Thermoelectric Transport
in Low-Dimensional
Materials](#)
**Philip Kim, Harvard
University**

**Monday, November
13, 2023 - 4:00pm, PAA
A-102**
[Physics Colloquia: Nobel
Colloquium](#)
**David Reis, Stanford
University**

**Thursday, November
16, 2023 - 12:30pm, PAB
B-421**
[Thouless Institute for](#)

Welcome

The Physics Observer is a periodic bulletin of happenings in and around UW Physics. Our goal is to share information of notable happenings, events, and news associated with the department. Please feel free to pass this newsletter to anyone who may be interested. Readers wishing to subscribe, or unsubscribe, may do so [here](#). Previous newsletters may be found on the physics website at [The Physics Observer Newsletter](#). Information for future editions may be sent to the editor, physrecp@uw.edu.

Chair's Corner (L. Yaffe)

Congratulations to Emeritus Professor Leslie Rosenberg, who has been awarded the [2024 W.K.H. Panofsky Prize in Experimental Particle Physics](#) from the American Physical Society. This award recognizes Prof. Rosenberg for *leading the synthesis of precision microwave cavity techniques, superconducting quantum sensing, and cryogenic technology into the modern axion haloscope, and for the subsequent demonstration of experimental sensitivity to high-priority models of axions as dark matter.*

Within the department, this is midterm time for many classes. Searches for new postdocs and faculty are getting underway, while promotion cases and sabbatical requests are being prepared for the college. All quite normal. Externally, however, for those reading or watching the news, the past month has been awfully bleak. Horrendous terrorism in Israel leading to dreadful suffering and death in Gaza. The Ukraine war grinds on. And here in the US, we are more polarized than ever with major parts of the federal government effectively non-functional. Focusing on the day-to-day and not feeling overwhelmed can be a challenge, but I remind myself that my parents' generation, living through WWII, or my grandparents, living through the Great Depression, coped with far worse times. It is painful to see civilization backslide in so many places.

Awards & Grants

- Emeritus Professor Leslie Rosenberg has been awarded the [2024 Panofsky Prize](#) of the APS.
- Associate Professor Arka Majumdar has been elected as a 2024 [Fellow Member of Optica](#).
- Professor Anton Andreev has been elected as a 2023 [Fellow in the American Physical Society](#).
- Ph.D. students Jack Barlow, Helen Chen, Sarah Edwards, and Lingnan Shen have all been selected as 2023-2024 UW [Clean Energy Institute Graduate Fellows](#).
- Ph.D. student Murali Saravanan has been awarded a Washington NASA Space Grant

Quantum Matter:
Engineering 2D quantum materials with atomic precision

Tiancong Zhu, University of California Berkeley

Monday, November 20, 2023 - 4:00pm, PAA A-102

Physics Colloquia: TBA
Anushya Chandran, Boston University

Monday, November 27, 2023 - 4:00pm, PAA A-102

Physics Colloquia:
Programmable Quantum Nanophotonics
Arka Majumdar, University of Washington

Monday, December 4, 2023 - 4:00pm, PAA A-102

Physics Colloquia: TBA
Andrea Young, University of California Santa Barbara

EXAMS

Wednesday, November 8, 2023 - 10:00am, PAT C-520
([Anna Wirth-Singh](#))

Friday, December 1, 2023 - 9:00am, CENPA 178
([Grace Song](#))

Friday, December 1, 2023 - 12:00pm, Zoom
([William Byron](#))

Consortium Graduate Fellowship.

Assorted Talks & Meetings.

- ❖ January 19-21, 2024, APS [Conference for Undergraduate Women in Physics](#), Montana State University.
- ❖ March 3-8, 2024, APS March meeting.

Funding Announcements

- Applications solicited for undergraduate summer internships from the German Academic Exchange Service (DAAD). See [here](#) for information. Deadline **November 30, 2023**.
- Applications solicited for the APS [Congressional Science Fellowship](#). Deadline **December 1, 2023**.
- Applications solicited for [HHMI Gilliam fellowships](#) supporting biomedical or life sciences PhD students and their advisors. Deadline **December 7, 2023**.
- Applications solicited for 2024 DOE Office of Science [summer undergraduate internships \(SULI\)](#). Deadline **January 9, 2024**.
- Applications solicited for [DOE computational science graduate fellowships](#). Deadline **January 17, 2024**. [Info session](#), noon **December 7**.

Job Opportunities

- [Assistant professor](#), experimental astro-particle physics, UC Riverside.
- [Tenure-Track Professor](#), Harvard University.
- [Assistant Professor](#), Columbia University.
- [Assistant Professor](#), theoretical physics, Princeton University.
- [Assistant Professor](#), experimental high-energy physics, NYU.
- [Assistant Professor](#), experimental high-energy physics, University of Kansas.
- [Assistant Professor](#), experimental condensed matter, University of Chicago.
- [Assistant Professor](#), [multiple positions](#), Univ. Maryland-Baltimore County.
- [Assistant Professor](#), multiple positions, astro & high-energy, University of Iowa.
- [Assistant Professor](#), biophysics, Johns Hopkins University.
- [Assistant Professor](#), quantum information, UC Berkeley.
- [Assistant Professor](#), theoretical physics, MIT.
- [Assistant Professor](#), theoretical physics, Stanford University.
- [Research Scientist](#), Kavli Inst. for Particle Astrophysics & Cosmology.

Selected Publications

The Quantum Cartpole: A benchmark environment for non-linear reinforcement learning, M. Rudner, et al., [arXiv:2311.00756](#).

Gauged cooling of topological excitations and emergent fermions on quantum simulators, M. Rudner, et al., [arXiv:2310.16082](#).

Boundary scattering tomography of the Bose Hubbard model on general graphs, A. Majumdar, et al., [arXiv:2310.14191](#).

Monday, December 4,
2023 - 9:00am, PAT C-520
(John Ferre)

SOCIAL MEDIA

[Instagram](#)

[Facebook](#)

[YouTube](#)

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Noise robustness and metabolic load determine the principles of central dogma regulation, T. Lo, H. Choi, D. Huang, P. Wiggins, [arXiv:2310.13803](#).

Giant magnetoresistance in weakly disordered non-Galilean invariant conductors, A. Andreev, et al., [arXiv:2310.12195](#).

Bounds on the Equation of State from QCD Inequalities and Lattice QCD, Y. Fujimoto, S. Reddy, [arXiv:2310.09427](#).

Modeling novel physics in virtual reality labs: An affective analysis of student learning, J. Canright, S. White Brahmia, [arXiv:2310.07952](#).

Three-pion scattering: From the chiral Lagrangian to the lattice, S. Sharpe, et al., [arXiv:2309.17107](#).