

The Physics Observer

May 5, 2023

In This Issue

Welcome

Chair's Corner

Milestones &

<u>Arrivals</u>

Research Awards & Grants

<u>Department Resources & News</u>

Assorted Talks &

<u>Meetings</u>

Funding Announcements

Selected Publications

UPCOMING EVENTS

Friday- Saturday, May 5-6, 2023 - 2:30pm & 9:30am, PAA: Supporting Women in Physics Workshop 2023

Monday, May 8, 2023-4:00pm, PAA A-102 Physics Colloquia: A new approach to measuring neutrino mass Elise Novitski, University of Washington

Monday, May 15, 2023 - 4:00pm, PAA A-102

Physics Colloquia:
Searching for new forces at micron scale and other

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)

This quarter seems to be busier than ever. We've got our upcoming <u>Frontiers of Physics</u> public lecture by Kip Thorne on May 17, for which in-person attendance in the largest lecture hall on campus has sold out. Our Climate and Diversity committee has organized a <u>Supporting Women+ in Physics</u> workshop on May 5&6. We will be holding a department town hall on May 19, and a special graduate student organized meeting to discuss cost of living concerns on May 10. Plus a department bbq on the last day of classes this quarter, June 2.

I'd like to note a couple of recent news items. First, a truly beautiful example of physics in action: one of the <u>luckiest examples of capturing lightning in action</u> in the NY Times. And a nice story in the UW Magazine, featuring a Physics student, about the <u>UW Instructional</u> <u>Center</u>.

Milestones & Arrivals

- ★ Welcome Menglu Zhang, our new Program Operations Specialist, who joined the department last month.
- ★ Welcome <u>Florie Mesple</u>, newly arrived Postdoctoral scholar, who joined the department last month.
- ★ Welcome <u>Charles Marcus</u>, newly arrived Professor of Physics and of Materials Science & Engineering, who also joined the UW last month.
- ★ Congratulations to Professor <u>Marjorie Olmstead</u> who has been appointed as Associate Vice Provost for Academic Personnel.

Awards & Grants

- ❖ Congratulations to <u>Associate Professor Mark Rudner</u>, who is a recipient of a 2023 Brown Science Investigator award.
- ❖ <u>Associate Professor Kai-Mei Fu</u> received \$900K from the US Department of Energy for "Donor-Ion Entanglement."
- ❖ <u>Associate Professor Shih-Chen Hsu</u> received \$27.5K from University of California, Santa Cruz for "Traineeships for Computational High Energy Physics."
- ❖ Assistant Professor Arthur Barnard received \$300K from the National Science

fun tricks with levitated microsphere Giorgio Gratta, Stanford University

Wednesday, May 17, 2023
- 7:30-9pm, Kane 130 & Livestream Frontiers of Physics: My Romance with the Warped Side of the Universe from Black Holes and Wormholes to Time Travel and Gravitational Waves
Kip Thorne, California Institute of Technology

Friday, May 19, 2023
-3:30-5pm, HSEB 101
Physics Department Town
Hall

Monday, May 22, 2023 - 4:00pm, PAA A-102

Physics Colloquia: TBA

Daniel Green, University of California San Diego

Wednesday, May 24, 2023 - 3:30-5:30pm, PAA A-102 2023 Physics Department

2023 Physics Department Awards Ceremony

Friday, June 2, 2023 11:00am-12:30pm, Mark
N. McDermott Plaza
Physics Department
Spring BBQ

Friday, June 10, 2023 - 10:00am, PAA

Physics Graduation
Celebration!

EXAMS

Monday, May 15, 2023 - 11:00am, PAT C-520 (<u>Harry Ni</u>)

Foundation for "Tunable Moiré Emitters."

❖ <u>Affiliate Professor Margaret Cheung</u> received \$67K from the Pacific Northwest National Laboratory for "Bioinspired Durable Storage of CO2."

Assorted Talks & Meetings

June 5-9 2023, <u>54th Annual Meeting of the APS Division of Atomic, Molecular and Optical Physics</u>, Spokane, WA.

Funding Announcements

Pre-proposals solicited for <u>Keck Foundation grants</u> supporting high-risk/high-reward research. Limited submission opportunity, \$1M or more. Internals UW deadline July 19, 2023.

Proposals solicited for <u>Cottrell Scholars Awards</u> for early-career faculty (1st appointment 2020 or later). 120K, deadline July 1, 2023.

Applications solicited for <u>Simons Foundation Scientific Software Research Faculty Awards</u>, supporting research faculty involved in scientific software development.

Job Opportunities

- Full-time Physics Lecturer- California Polytechnic State University
- Assistant Professor University of Nebraska-Lincoln
- Teaching Assistant Professor of Physics- University of North Dakota
- Associate Research Scientist-Columbia University
- Medical Physics Assistant, Northwest Medical Physics Center
- Instructor, Astrocamp
- <u>Undergraduate summer internship</u>, PNNL. Query <u>S. Spurgeon</u> for placement help.

Selected Publications

The in vivo measurement of replication fork velocity and pausing by lag-time analysis, D.Huang, B.Sim, T.Lo, P. Wiggins, et al.,

https://www.nature.com/articles/s41467-023-37456-2.

Fractional Chern Insulator in Twisted Bilayer MoTe2, X.Xu, D.Xiao, et al., https://arxiv.org/abs/2304.11864.

On the non-uniqueness of the quasi-static magnetic forward problem and its impact on source current reconstruction, W.-J.Yeo, A.Miller, S.Taulu, et al., https://arxiv.org/abs/2304.11270.

Quark Chromo-Electric Dipole Moment Operator on the Lattice, V. Cirigliano, et al., https://arxiv.org/abs/2304.09929.

Signatures of Fractional Quantum Anomalous Hall States in Twisted MoTe2 Bilayer, J.Cai, E.Anderson, W.Holtzmann, Y.Zhang, D.Xiao, X.Xu, et al.,

 $\underline{https://arxiv.org/abs/2304.08470}.$

Fundamental Symmetries, Neutrons, and Neutrinos (FSNN): Whitepaper for the 2023 NSAC Long Range Plan, V.Cirigliano, W.Dekens, J.Detwiler, A.Garcia, D.Hertzog,

Thursday, May 25, 2023 - 10:00am, PAT C-520 (Samantha Tetef)

Friday, May 26, 2023 - 11:00am, PAT C-520 (Yinong Zhang)

Wednesday, May 31, 2023 - 10:00am, PAT C-520 (Alexander Joseph Schuy)

Thursday, June 1, 2023 - 12:00Pm, TBD (Zeeshawn Kazi)

Friday, June 2, 2023 - 10:00am, PAT C-520 (Michael Pun)

Friday, June 2, 2023 - 1:30pm, CENPA NPL-178 (Erik Shaw)

SOCIAL MEDIA

Instagram

Facebook

YouTube

Twitter (@physicsuw)

<u>Vimeo</u>

Pinterest

E.Novitski, P.Kammel, C.-Y.Seng, B.A.VanDevender, et al., https://arxiv.org/abs/2304.03451.

Non-supersymmetric heterotic branes, J.Kaidi, et al., https://arxiv.org/abs/2303.17623.

UW Coronavirus Response Information

- Current pandemic information on the <u>UW Covid-19 tracking dashboard</u>.