



# The Physics Observer

Jul 7, 2023

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## EVENTS

July 10-14, 2023 - Oak

Hall/PAB

[A3D3 High-Throughput](#)

[AI Methods and](#)

[Infrastructure Workshop](#)

## EXAMS

Friday, July 14, 2023 -  
11:00am, PAB B-421

([Kyle Hwangbo](#))

Friday, July 14, 2023 -  
2:00pm, PAB C-520

([Jiaqi Cai](#))

Monday, July 24, 2023 -  
10:00am, PAB B-421

([Xinxin Tang](#))

## 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](mailto:physrecp@uw.edu).

## Chair's Corner (L. Yaffe)

The 2022-23 academic year is over and this year the UW Physics department awarded 131 B.S. degrees to physics majors, along with 23 M.S. degrees and 18 Ph.D's. The audience at our annual graduation ceremony was wildly enthusiastic and it was a pleasure to offer congratulations to many of our graduating students and their families.

A record amount of external research funding was received by our faculty this past year, most from federal funding agencies but also including notable awards from private foundations. The long-awaited UW Financial Transformation, completely replacing many decades-old accounting and finance software systems, has just "gone live". The next few months are sure to have challenges for department staff as kinks in the new system get worked out.

Many of us, myself included, will be heading to various workshops and conferences in the coming weeks. I wish everyone a pleasant and productive summer!

## Milestones & Arrivals

- ★ Research Scientist/Engineer [Britney Dodson](#) celebrates 5 years with UW.
- ★ Research Scientist/Engineer [Matthew Twomey](#) celebrates 10 years with UW.
- ★ Research Scientist/Engineer [Tim Van Wechel](#) celebrates 30 years with UW.

## Awards & Grants

- Assistant Professor Jens Gundlach received \$800K from the National Institutes of Health for High Accuracy Nanopore Sequencing.
- Associate Professor Xiaodong Xu received \$390K from the US Army Research Office for Ab-Initio Solid-State Quantum Materials: Design, Production, and Characterization at the Atomic Scale.
- Associate Professor Samu Taulu received \$9K from the University of California, San Francisco for Mapping magnetic field and tissue parameters using the elliptical signal

Monday, July 24, 2023-  
2:30pm, PAB B-143  
(Anthony Ciavarella)

Tuesday, July 25, 2023-  
9:00am, PAB B-231  
(Anthony Ciavarella)

Thursday, July 27, 2023  
- 10:30am, NPL 178  
(Michaela Guzzetti)

## SOCIAL MEDIA

[Instagram](#)

[Facebook](#)

[YouTube](#)

[Twitter \(@physicsuw\)](#)

[Vimeo](#)

[Pinterest](#)

model of balanced steady state free precession MRI.

- Associate Professor Alvaro Chavarria received \$145K from the National Science Foundation for The DAMIC-M Detector to Search for Light Dark Matter.
- Professor Subhadeep Gupta received \$20K from the American Physical Society from the APS Division of Atomic, Molecular and Optical Physics.

## Assorted Talks & Meetings

October 28, 2023, Annual Meeting of the Washington Section of the American Association of Physics Teachers, Central Washington University, Ellensburg WA.

## Funding Announcements

- Proposals solicited for [Washington Research Foundation Fellowships and Levinson Emerging Scholars Awards](#), both offering support for undergraduates beyond the introductory level who have already participated in three or more quarters of research. Application deadline July 30, 2023.
- Applications solicited for [Laura Bassi Scholarships](#), providing editorial assistance for master's and doctoral candidates, deadline July 25, 2023.

## Job Opportunities

- [Tenure-Track Faculty](#) - Stony Brook University
- [Visiting Assistant Professor](#) - St. Olaf College
- [Assistant Professor](#) - University of San Diego
- [Tenure-Track Assistant Professor](#)- Brown University
- [Associate Editor](#) - Physics Today
- [Director of Undergraduate Laboratories](#) - Texas Tech

## Selected Publications

- [Quantum simulation of fundamental particles and forces](#), Martin Savage, et al.
- Reversible Non-Volatile Electronic Switching in a Near Room Temperature van der Waals Ferromagnet, P. Malinowski, C. Hu, Y. Shi, X. Xu, J.-H. Chu, et al., [arXiv:2307.03154](#).
- Neutrino winds on the sky, C. Nascimento, M. Loverde, [arXiv:2307.00049](#).
- Hydrodynamics of thermally-driven chiral propulsion and separation, A. Andreev, et al., [arXiv:2306.16509](#).
- A no-go result for implementing chiral symmetries by locality-preserving unitaries in a 3 dimensional Hamiltonian lattice model of fermions, L. Fidkowski, et al., [arXiv:2306.10105](#).
- Fermi Surface Evolution and Anomalous Hall Effect in an Ideal Type-II Weyl Semimetal, Q. Jiang, P. Malinowski, A. Wang, Z. Lin, L. Shen, X. Xu, D. Xiao, J.-H. Chu, [arXiv:2306.08339](#).
- Chiral EFT calculation of neutrino reactions in warm neutron-rich matter, S. Reddy, et al., [arXiv:2306.05280](#).

Effective field theory for radiative corrections to charged-current processes I: Vector coupling, V. Cirigliano, W. Dekens, et al., [arXiv:2306.03138](https://arxiv.org/abs/2306.03138).

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## **UW Coronavirus Response Information**

- Current pandemic information on the [UW Covid-19 tracking dashboard](#).

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