



The Physics Observer

August 5th, 2021

In This Issue

[Welcome](#)

[Chair's Corner](#)

[Upcoming Events](#)

[Milestones &](#)

[Arrivals](#)

[Research Awards & Grants](#)

[Department Resources &
News](#)

[Assorted Talks &](#)

[Meetings Funding](#)

[Announcements Selected](#)

[Publications](#)

UPCOMING EVENTS

- ❖ Tuesday, August 10, 2021, 11:00 am

Physics Department:
Final Exam: Searches for
resonant and non-
resonant pair production
of Higgs bosons in the
4b final state with the
ATLAS detector

Sean Gasiorowski
(Advisor: Anna
Goussiou)

- ❖ Thursday, August 18, 2021- 11:00 am

Physics Department: Final
Exam: Neutron stars as
laboratories for
fundamental physics: from
dense QCD to dark matter

Dake Zhou (Advisor:
Sanjay Reddy)

- ❖ Monday, September 27, 2021

Fall BBQ at the College
Club of Seattle

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, [Alexis Hall](#).

Chair's Corner (L. Yaffe)

I find it hard to believe that summer is half over! Renovations on a number of 5th floor offices, the ex-hbar cafe, and a new small classroom are underway. In preparation for the arrival of new students and faculty, multiple office clean-outs and moves are also in progress, with more to come.

The Covid situation remains unsettled. Vaccination rates in the Seattle area are quite high, and the UW began relaxing distancing and masking requirements a few weeks ago. But the daily case numbers in Washington state have been rising. It is possible that actual proof of Covid vaccination will be required for on-campus work next autumn. In any case, I urge all those who have not yet been vaccinated to do so, unless medically exempt, not just for their safety but also for the safety of everyone they may come in contact with.

Finally, congratulations to Assistant Professor Matthew Yankowitz, who has received an NSF CAREER award for his work on tunable topological states in atomically thin layered materials.

Milestones & Arrivals

[Instrument Maker, Jeremy Prickett](#) celebrated 5 years with the University of Washington.

Research Awards & Grants

- ❖ [Associate Professor Matthew Yankowitz](#) received 134K from the National Science Foundation for Topological states in twisted van der Waals heterostructures.
- ❖ [Professor Xiaodong Xu](#) received 400K for Quantum engineering exciton dynamics in 2D-heterostructures and 700K for Ultrafast control of emerging electronic phenomena in 2D quantum materials 2020 from the US Department of Energy.
- ❖ [Professor Henry Lubatti](#) received 550K from the National Science Foundation for Beyond the standard model physics.
- ❖ [Professor Xiaodong Xu](#) received 1.5M from the Air Force Office of Scientific Research for 2D MAGIC: new science from two-dimensional magnetic heterostructures.
- ❖ [Professor Jens Gundlach](#) received 100K from the National Science Foundation for Sensors for low-frequency improvements in advanced LIGO.
- ❖ [Associate Professor Kai-Mei Fu](#) received 48K from the National Science Foundation for COVID supplement to Donor electron spins.
- ❖ [Professor Subhadeep Gupta](#) received 196K from the National Science Foundation for Optical lattice engineering for enhanced interferometry and sensing with Yb atoms.
- ❖ [Associate Professor Boris Blinov](#) received 147K from the National Science Foundation for Experimental study of quantum jumps with a single trapped ion.
- ❖ [Professor Xiaodong Xu](#) received 38K from the US Army Research Office for Ab-Initio solid-state quantum materials: design, production & characterization at the atomic scale.
- ❖ [Professor Gerald Seidler](#) received 40K from the Argonne National Laboratory for X-ray characterization of ion pairing in zinc electrolytes.

SOCIAL MEDIA

[Instagram](#)

[Facebook](#)

[YouTube](#)

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

[Vimeo](#)

[Pinterest](#)

Department Resources & News

Telework: Employees not currently required to be on campus may continue teleworking through September 10. Employees who prefer to work from campus sooner than September 10 are encouraged to do so, as long as it is safe and operationally feasible.

The Montlake bridge repair project will begin August 9 and will necessitate a complete closure of the Montlake bridge to vehicular traffic until September 3, with additional weekend closures thereafter. See [this page](#) for more information.

How to reactivate your U-PASS: If it has been more than 60 days since you last tapped your U-PASS on an ORCA card reader, it is likely inactive. In preparation for a return to onsite work, use UW Transportation's [web form](#) to request reactivation.

Set up your UW NetID recovery options: Add your mobile number and email address so if you forget your password or get locked out, you can regain access to your UW NetID.

Assorted Talks & Meetings

Submissions solicited for the UChicago Rising Stars Symposia 2021, a platform for exceptional early-career scientists in physics. Speakers receive honoraria. Meeting dates:

- ❖ Rising Stars in Experimental Particle Physics: September 22-23, 2021
- ❖ Rising Stars in Soft and Biological Matter: September 23-24, 2021
- ❖ Quantum Creators Prize Symposium: September 29-30, 2021

Info [here](#). Application deadline **August 15, 2021**.

Registration open for the APS Virtual Career Fair, [Here](#)

Funding Announcements

Applications open for proposals to the [John Templeton Foundation](#), which makes both large (>250K) and small grants in multiple areas one of which is "investigating the fundamental laws and structures of nature through mathematics and physics." See [here](#). Deadline for 2021 funding cycle: **August 20, 2021**.

Applications open for the [Fermi National Accelerator Lab - URA Visiting Scholars Program](#). \$50K to support students or faculty working at Fermilab for up to a year. Deadline: **August 26, 2021**.

Applications for the next cycle of [Royalty Research Fund](#) grants are due to the college by **September 23, 2021**. Note: teaching faculty are eligible to be PI on an RRF grant, while acting faculty or faculty with temporary appointments may be paid for up to 2 months on RRF grants even though they are not eligible to be PI or Co-I.

Applications open for [2022-2023 Radcliffe Fellowships](#). Deadline **September 30, 2021**.

Job Opportunities

- ❖ [Assistant Professor in Chemistry and Biochemistry](#) at the University of California San Diego Division of Physical Sciences United States.
- ❖ [Instructor in Physics](#) at Rutgers the State University of New Jersey Department of Physics.
- ❖ Instructor in Physics at Whitman College, Walla Walla, Washington. Contact department chair [Moira Gresham](#).

Selected Publications

"Interferometry in an Atomic Fountain with Ytterbium Bose-Einstein Condensates", D. Gochnauer, T. Rahman, A. Wirth-Singh, S. Gupta, <https://arxiv.org/abs/2107.09117>.

"Testing the inverted neutrino mass ordering with neutrinoless double-beta decay", J. Detwiler et al., <https://arxiv.org/abs/2107.09104>.

"Applicability of the two-particle quantization condition to partially-quenched theories", Z. Draper and S. Sharpe, <https://arxiv.org/abs/2107.09742>.

“Evidence of Orbital Ferromagnetism in Twisted Bilayer Graphene Aligned to Hexagonal Boron Nitride”, A. Barnard et al., <https://arxiv.org/abs/2102.04039>.

UW Coronavirus Response Information

Face Covering Requirements: *Updated August 3, 2021, at 11:14 a.m.*

Eight Puget Sound region health departments issued [a statement recommending everyone wear masks indoors](#), regardless of vaccination status, as did Gov. Inslee and the CDC. Our own campus public health advisors have also reviewed and endorsed their recommendation. The **[UW is now strongly recommending that everyone, regardless of vaccination status, wear a mask or other face covering indoors](#)** in areas where they are not already required.

- ❖ **Individuals who are *not fully vaccinated* against COVID-19 are required to wear a face covering** indoors when on site at a University of Washington location.
- ❖ **A face covering is required, regardless of vaccination status**, in health care settings, University shuttles, K-12 schools, childcare facilities, and day camps in locations where children are present or expected to be present.
- ❖ ***Non-fully vaccinated individuals, and all individuals in the above settings where a face covering is required regardless of vaccination status, must wear a face covering:*** Indoors when other people are present and in all public and common areas, such as lobbies, hallways, stairways, restrooms, elevators, and in shared vehicles.
- ❖ ***Wearing a face covering is strongly recommended for fully vaccinated individuals*** on site at a University of Washington location except for locations where a face covering is required regardless of vaccination status.
- ❖ Supervisors must verify personnel are fully vaccinated against COVID-19 before removing the face covering requirement in the workplace, in accordance with L&I and the University’s [COVID-19 Vaccination Policy](#).
- ❖ **A face covering is not required outdoors regardless of vaccination status.** However, a face covering is encouraged for non-vaccinated individuals when in outdoor crowded settings and settings where there is a decreased ability to consistently maintain a physical distance between others.

Widespread vaccinations are *the* way out of the pandemic. While no vaccine is 100% effective, evidence clearly demonstrates that those who are fully vaccinated continue to have strong protection against COVID-19, including the Delta variant, with high protection against serious illness or hospitalization even in breakthrough cases. [Roughly 97% of cases in Washington](#) over the last few months, including from the Delta variant, have been among people who have not been vaccinated. Please, if you are able, **[get vaccinated immediately](#)**. And since personal conversations are one of the best ways to overcome hesitancy, UW Medicine has tips for [talking with friends and loved ones about getting vaccinated](#).

[Husky Coronavirus Testing](#) will continue at least through autumn quarter, and any students or personnel coming to campus this fall are encouraged to enroll in this free service.

[Have you completed your vaccination attestation yet?](#) To help the UW evaluate the health situation more accurately, *please* complete your vaccination attestation as soon as possible. Confirm whether you are fully vaccinated, or claim an exemption, by using this [Workday guide](#).