

The Physics Observer

July 14th, 2021

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UPCOMING EVENTS

 Tuesday, July 20, 2021, 1:00pm

<u>Physics Department: Final</u> <u>Exam: Analytical forward</u> <u>models for magnetic</u> <u>induction of asymmetric,</u> <u>icy ocean worlds with</u> <u>implications for spacecraft</u> <u>investigations</u>, Marshall J Styczinski (Advisor: Erika Harnett)

Thursday, July 29, 2021- 3:00pm

<u>Physics Department:</u> <u>General Exam: Lifshitz</u> <u>transition in an ideal type-II</u> <u>Weyl semimetal MnBi2-</u> <u>xSbxTe4</u>, Qianni Jiang (Advisor: Jiun-Haw Chu)

Thursday, August 19, 2021- 2:00 pm

<u>Final Exam: Pions in</u> <u>Neutron-rich Matter:</u> <u>Implications for Neutron</u> <u>Stars and Supernovae</u>, Bryce H Fore (Advisor: Sanjay Reddy)

Monday, September 27, 2021

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 <u>here</u>. Previous newsletters may be found on the physics website at <u>The Physics Observer Newsletter</u>. Information for future editions may be sent to the editor, <u>Alexis Hall</u>.

Chair's Corner (L. Yaffe)

There is increasing light coming from what, I hope, is the end of the Covid pandemic tunnel. As summarized below, guidance for on-campus work has now been revised with 6' distancing and daily symptom attestation no longer required, and masking no longer required for vaccinated individuals who have suitably registered their vaccination status.

While the pandemic did slow some projects, this past year was a good year, overall, for research in the department, with total support from external research grants up significantly over previous years.

In addition to the five incoming faculty who were successfully recruited last year, but delayed their arrival due to the pandemic, we have also been successful this year recruiting Di Xiao, a condensed matter theorist, who will hold a joint appointment in Physics and in Materials Science and Engineering, and will also be arriving in September. Welcome!

Milestones & Arrivals

- Associate Professor Mark Rudner has joined the department -- welcome!
- ✤ <u>Professor Boris Spivak</u> celebrated 30 years at the University of Washington.
- <u>CENPA Instrument Maker James Elms</u> celebrated 30 years at the University of Washington.

Research Awards & Grants

- Professor and Director of CENPA David Hertzog received \$4M from the US Department of Energy (DOE) for Experimental Nuclear Physics.
- <u>Associate Professor Kai-Mei Fu</u> received 240K from the US Department of Energy (DOE) for Co-design of Quantum Computing.
- Professor Anna Goussiou received 61K from the US Department of Energy (DOE) for US ATLAS Software Development.
- <u>Assistant Professor Alvaro Chavarria</u> received 130K from the US Department of Energy (DOE) for Direct-Detection of Dark Matter.
- Professor Aurel Bulgac received 100K from the National Nuclear Security Administration (NNSA) for Center of Excellence in Low Energy Nuclear Science.
- <u>Associate Professor Shih-Chieh Hsu</u> received \$5,500 from the Brookhaven National Laboratory for SUPER: search for Semi-visible Jets s-channel in Atlas.

Department Resources & News

<u>Preparing for Autumn Quarter 2021</u>: Check out these teaching suggestions, developed by the Tri-Campus Digital Learning Alliance, on how to blend the best of remote and in-person instruction to give students an exceptional learning experience.

Fall BBQ at the College Club of Seattle

SOCIAL MEDIA

<u>Instagram</u> <u>Facebook</u> <u>YouTube</u> <u>Twitter (@physicsuw)</u> <u>Vimeo</u> <u>Pinterest</u>

CONTACT US

physrecp@uw.edu amhall2@uw.edu <u>Telework</u>: 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 do so, as long as it is safe and operationally feasible.

<u>International Travel</u>: All official international travel must be registered with UW Global Travel Security through the <u>Office of Global Affairs</u>.

Montlake Bridge closure starts Aug. 9th: WSDOT repairs will close the bridge to vehicle and transit traffic for a month, with additional weekend closures in the fall.

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.

Funding Announcements

Applications open for <u>Moore Foundation Fundamental Physics Innovation Awards</u>. These awards hope to stimulate ideas on innovative ways in which emerging technologies can be used to address pressing problems in the physics of fundamental particles and interactions. See more info <u>here</u>. Application deadline **July 15, 2021**.

Applications open for <u>NRC Research Associateship Programs</u>. The National Academies of Sciences, Engineer, and Medicine administers postdoctoral and senior research awards at multiple federal research labs. Application deadline for next review cycle: **August 1, 2021**.

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 <u>here</u>. Deadline for 2021 funding cycle: **August 20, 2021**.

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

Applications for the next cycle of <u>Royalty Research Fund</u> 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.

Job Opportunities

Clay Postdoctoral Fellowships, and CfA Postdoctoral Fellowships support innovative astrophysics research at the Harvard & Smithsonian Center for Astrophysics (CfA). See <u>here</u> and <u>here</u>. Application deadline September 1, 2021.

Numerous special postdoctoral fellowships at UChicago in multiple areas of physics. See <u>here</u>. Application deadlines: October or November 15, 2021.

Lecturer in Theoretical Particle Physics and Cosmology at King's College London. Info <u>here</u>. Application deadline July 25, 2021.

AI Institute for Artificial Intelligence and Fundamental Interactions (IAIFI) Postdoctoral Fellowships for early-career scientists working at the intersection of Physics and AI. Info <u>here</u>. Application deadline September 21, 2021.

Selected Publications

"Electric control of a canted-antiferromagnetic Chern insulator," J. Cai, D. Ovchinnikov, Z. Fei, M. He, T. Song, Z. Lin, D. Cobden, J.-H. Chu, X. Xu et al., https://arxiv.org/abs/2107.04626.

"Photonic Topological Baths for Quantum Simulation," A. Saxena, Y. Chen, Z. Fang, A. Majumdar, <u>https://arxiv.org/abs/2106.14325</u>.

"Observation of Many-body Dynamical Delocalization in a Kicked Ultracold Gas," J. H. See Toh, K. McCormick, X. Tang, Subhadeep Gupta et al., <u>https://arxiv.org/abs/2106.13773</u>.

"Learning and organization of memory for evolving patterns," O. Schnaack, A. Nourmohammad et al., <u>https://arxiv.org/abs/2106.02186</u>.

"Unusual magnetotransport in twisted bilayer graphene," M. Yankowitz et al., <u>https://arxiv.org/abs/2105.01870</u>.

"Standard Model Physics and the Digital Quantum Revolution: Thoughts about the Interface," A. Roggero, M. Savage et al., <u>https://arxiv.org/abs/2107.04769</u>.

UW Coronavirus Response Information

COVID-19 vaccine requirement for UW employees

The University will require faculty and other academic personnel, staff, student employees, and trainees to be vaccinated against COVID-19 by autumn quarter in order to work on UW campuses or within UW facilities.

Changes to face covering and distancing policies:

All University units must follow the updated <u>UW COVID-19 Face Covering Policy</u>. Following federal, state and local health guidance, as of July 7, **face coverings are optional for** <u>fully vaccinated individuals</u> at UW campuses and facilities, with specific exceptions that include health-care and child-care facilities, and UW shuttles. You must continue to wear face coverings in these settings, regardless of your vaccinated must continue to wear a face covering indoors at all UW campuses and facilities, in accordance with the UW Face Covering Policy.

Physical distancing, capacity and other updates:

Based on state guidance, today the UW is also lifting both indoor and outdoor distancing and COVID-19 capacity requirements, though distancing is still recommended for unvaccinated individuals.

How to verify your vaccination status:

All students and employees are asked to either <u>verify that they have been fully vaccinated</u>, or declare a medical, religious or philosophical exemption:

- All employees (other than UW Medicine clinical personnel): provide your information through the <u>Workday COVID-19 vaccine attestation form</u>.
- UW Students: No later than the start of autumn quarter, provide your information on the student COVID-19 vaccine attestation form.

Vaccination attestation information is private, but is available to supervisors who are responsible for ensuring that non-vaccinated individuals continue to follow masking policy.

- Supervisors may not use, share or disclose this information for any purpose other than upholding compliance with state regulations.
- Employees may not ask colleagues about their vaccination status.
- Instructors may not ask their students about their vaccination status, nor will they have access to students' records or be expected to verify students' vaccination status. Instructors may broadly inform students that individuals who are not fully vaccinated need to wear face coverings in the classroom.

Symptom attestation continuing only for clinical & child-care personnel.

Effective July 7, UW employees will no longer be required to complete the daily COVID-19 symptom attestation in Workday prior to working on-site unless they work in a clinical or child-care setting. All individuals are still required to monitor symptoms daily, stay home if they are sick or experiencing COVID-19 symptoms, and report to <u>EH&S</u> or UW Medicine employee health if they test positive for COVID-19 or have had close contact with someone who tested positive, *regardless of their vaccination status*.'

How to manage COVID-19 anxiety after you're vaccinated

As people readjust to post-vaccination life, feelings of stress and anxiety may spike. Dr. Kristen Lindgren, a psychologist at the Psychiatry Clinic at UW Medical Center – Roosevelt, explains why re-entry anxiety is normal and gives tips on how to manage it.