



The Physics Observer

Jan 4, 2022

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UPCOMING

EVENTS

Wednesday, January 5,
2022 - 4:00pm to 5:00pm
PAA102:

Physics Colloquia:
[Bridging Quantum
Many-Body Physics and
Quantum Information
Theory](#)

Isaac Kim (UC Davis)

Monday, January 10, 2022 -
4:00pm to 5:00pm PAA102:
[Physics Colloquia: TBA,](#)
John Stout (Harvard)

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)

Welcome to the new year! I'm certainly hoping that 2022 will present fewer challenges than did the last two years, but this remains quite uncertain as we all await clarity on the impact here in the Pacific NW of the latest omicron spike of the Covid pandemic.

Winter quarter will get underway with the first week of classes taught remotely and, under current plans, subsequent classroom instruction in-person. Physics colloquia will generally be in-person, but also viewable remotely. There will also be a series of special Wednesday colloquia this quarter. I urge all those interested and able to attend.

Multiple Physics staff received nominations for the [UW Staff Together We Will Awards](#). All of our hard-working staff deserve more recognition for their contributions. I appreciate their efforts!

On a non-Physics note, I'd like to make a plug for the special exhibition "Imogen Cunningham: A Retrospective at the Seattle Art Museum,"

<https://www.seattleartmuseum.org/exhibitions/cunningham>. Imogen Cunningham was a ground-breaking photographer of the 20th century who grew up here in Seattle. The exhibit is terrific, I highly recommend seeing it.

Research Awards & Grants

- ❖ [Assistant Professor Masha Baryakhtar](#) received \$95K from the US Department of Energy for Novel signatures beyond the standard model: from extreme environments to precision measurements.
- ❖ [Assistant Professor Natalie Paquette](#) received \$95K from the US Department of Energy for Higher Algebraic Structures in Holography.
- ❖ [Associate Professor Gray Rybka](#) received \$700K from the US Department of Energy for the Generation 2 Axion Dark Matter Experiment (ADMX-G2): University of Washington Fabrication, Commissioning and Operations in the 0.6-2 GHz Frequency Bands.
- ❖ [Professor Xiaodong Xu](#) received \$320K from the US Army Research Office for Ab-Initio Solid-State Quantum Materials: Design, Production, and Characterization at the Atomic Scale.

Wednesday, January 12,
2022 - 4:00pm to 5:00pm
PAA102:

Physics Colloquia:
Symmetry and Topology:
from CM to HEP, Justin
Kaidi (Stony Brook)

Wednesday, January 19,
2022 - 4:00pm to 5:00pm
PAA102:

Physics Colloquia: TBA,
Ibou Bah (JHU)

Friday, January 21, 2022
- 12:00pm PAT C-520:

Physics Department:
General Exam, Olivia
Thomas (Advisor: Jose
Kutz), University of
Washington

Monday, January 24,
2022 - 4:00pm to 5:00pm
PAA102:

Physics Colloquia: TBA,
Henry Maxfield (Stanford)

Wednesday, January 26,
2022 - 4:00pm to 5:00pm
PAA102:

Physics Colloquia: TBA, G.
Joaquin Turiaci (IAS/
Princeton)

Monday, January 31,
2022 - 4:00pm to 5:00pm
PAA102:

Physics Colloquia: TBA.
Isabel Garcia Garcia
(Kavli)

Wednesday, February 2,
2022 - 4:00pm to 5:00pm
PAA102:

Physics Colloquia: TBA.,
Matteo Ippoliti (Stanford)

❖ Professor Henry Lubatti received \$43K from the Brookhaven National Laboratory for HL-LHC Pixels IST.

Department Resources & News

Most classes will meet online the first week of winter quarter: To foster a successful start to the winter quarter, during the first week of the quarter — **Jan. 3 to 9** — most classes will be held online. We are committed to a return to in-person education and look forward to that happening on **Monday, Jan. 10**.

2021 in video: Highlights from UW News stories (Link to Video)

As the year draws to a close, here are highlights from video stories produced by UW News during 2021 — a year where the COVID-19 pandemic continued to impact our lives. We continued to teach, learn and work on research from artificial intelligence to zooplankton. This video is also available with an [audio description](#).

#ThisIsUW: Capturing the year in photos - from the UW's stories and the community.

The **Husky 100 will recognize 100 outstanding UW students** who are making the most of their time at the UW. This is a remarkable way to recognize UW students who are demonstrating the University's innovative spirit and commitment to improving our world. Nominations of undergraduate and graduate students for the Husky 100 may be submitted until **5pm (PST) Friday, January 21, 2022**.

Nominate UW alumni for an Award of Excellence: Do you know alumni who have excelled after their time at the UW? Nominate them for the Alumnus Summa Laude Dignatus Award by **January 31, 2022**.

Math Alliance Expands Diversity in STEM: Through the Math Alliance, UW departments and programs provide mentoring and networking to encourage diversity in STEM fields.

Assorted Talks & Meetings

For the first six weeks of this quarter, the physics department is hosting **Colloquia** twice each week, on **Mondays and Wednesdays**; the speakers will be attending the **SPS Lunchbox** at 12:30 on the day of their colloquium. Some of these speakers will be candidates for a faculty position in the department.

Advancing Graduate Leadership (AGL) Meetings: Do you identify as a woman or gender minority graduate student or postdoc and want to expand your network, discover collaboration opportunities, receive mentor and professional development training, and support others seeking leadership roles? If so, then please consider participating in AGL activities! AGL is a new program where APS has partnered with the Heising-Simons Foundation to provide opportunities for women and gender minority graduate students and postdocs. See [here](#).

Funding Announcements

Applications open for **DOE Science Undergraduate Laboratory Internships (SULI)**, and **Visiting Faculty Program (VFP)**, are now accepting applications for the 2022 Summer Term internships. Deadline **January 12, 2022 5:00 PM ET**.

May 19, 2022 - 6:00pm:

Frontiers of Physics:

[Generating High-Intensity, Ultrashort Optical Pulses](#),
Dr. Donna Strickland (2018
Nobel Laureate in Physics),
University of Waterloo,
University of Washington

SOCIAL MEDIA

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Pre-proposals solicited for the [Experimental Physics Investigators Initiative of the Moore Foundation](#), 1.25M over five years. Apply [here](#). Deadline **January 14 2022 11:00 PM (PST)**.

Applications open for [Research Exchanges](#) among 8 partner R1 research institutions. Postdocs or all-but-dissertations PhD students in Mathematics, Physical Sciences, Environmental Sciences, Computer Science, and Engineering. Deadline **January 14, 2022**.

Applications open for [NRC Research Associateship programs](#), hosting researchers at various national laboratories. Next review deadline: **February 1, 2022**.

Applications open for [Idaho National Laboratory Graduate Fellowships in clean energy and nuclear energy development](#). Application deadline **February 13, 2022**.

Applications solicited for Transatlantic collaboration proposals to the [Thomas Jefferson Fund of the FACE Foundation](#). The Thomas Jefferson Fund issues a yearly call for proposals to fund projects led by pairs of young American and French researchers at the beginning of their careers. Grants of \$20,000 over two years are split equally between the French and the American teams. Deadline **February 24, 2022**.

Submissions solicited for [Springer Thesis awards](#). The series “Springer Theses” highlights outstanding Ph.D. theses from around the world and across the physical sciences. \$500 awarded for selected PhD theses.

Job Opportunities

- DHS threat detection postdoctoral position, see [here](#).
- [Outreach Astronomer](#), Dudley Observatory, [Siena College](#).
- [Assistant Project Scientist in Physics](#), University of California Santa Barbara Physics Department.
- [Physical Sciences Assistant Professorships: Diversity and Inclusion](#), Brown University.
- [Assistant Professor of Physics and Astronomy](#), University of British Columbia Department of Physics and Astronomy, Vancouver Canada.

Selected Publications

“Hydrodynamic thermoelectric transport in Corbino geometry”, A. Andreev, et al., <https://arxiv.org/abs/2112.08379>.

“Index theorems, generalized Hall currents and topology for gapless defect fermions”, D. Kaplan, et al., <https://arxiv.org/abs/2112.06954>.

“Symmetries of the nucleon-nucleon S-matrix and effective field theory expansions”, S. Beane and R. Farrell, <https://arxiv.org/abs/2112.05800>.

“Vortices in spin-0 superfluids carry magnetic flux”, L. Yaffe, et al., <https://arxiv.org/abs/2112.04595>.

“ $\pi\pi$ scattering in partially-quenched twisted-mass chiral perturbation theory”, Z. Draper and S. Sharpe, <https://arxiv.org/abs/2111.13975>.

UW Coronavirus Response Information

The emergence of Omicron is another reminder to continue our layered efforts to prevent the spread of COVID-19:

- Get a COVID-19 vaccine booster when eligible.
- Wear a well-fitting, multilayered mask.
- Follow face-covering and distancing guidance, as appropriate, at indoor gatherings.

- Wash your hands regularly.
- Stay home when sick or symptomatic, and get tested and follow the steps in the UW public health requirements flow chart.

Booster shots available and recommended for ages 18+ : If you haven't received a COVID-19 vaccine booster shot, doing so is recommended for everyone age 18 or older. UW Medicine and many other pharmacies, clinics and vaccination sites offer boosters.

Release time for COVID-19 vaccine boosters: The UW strongly encourages all employees to obtain a booster shot for COVID-19 when you're eligible. If your vaccination appointment coincides with your regular work schedule, paid release time of up to two hours is available to staff and student employees.