



The Physics Observer

Sep 5, 2023

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Tuesday, September 26,
2023 12-12pm -
McDermitt Plaza
Welcome Back BBQ!

Tuesday, October 17,
2023 7:30-9pm - Kane
130
Frontiers of Physics
Lecture Series: William
Bialek

EXAMS

Monday, September 25,
2023 - 11:00am, PAB
B-421
(Eric Anderson)

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)

I hope everyone has had a pleasant and productive summer. The end of summer is rapidly approaching, and autumn quarter will commence later this month.

This newsletter regularly highlights notable awards to current students and faculty, including several below. But newly appearing in this issue is a section recognizing accomplishments of alumni of the department. Many alumni of the department have made noteworthy contributions, and this is a small effort to recognize a few of these.

Milestones & Arrivals

- ★ Professor [Silas Beane](#) celebrates 10 years with UW.
- ★ Professor [Subhadeep Gupta](#) celebrates 20 years with UW.
- ★ Welcome Assistant Professor [Isabel Garcia Garcia](#).
- ★ Welcome Assistant Professor [Joaquin Turiaci](#).

Alumni Recognition

Nichole Barry (PhD 2018, advisor Miguel Morales) was awarded the 2023 [Louise Webster Prize](#) from the Astronomical Society of Australia for the [best paper](#) by an early career astronomer.

[Susanne Hering](#) (PhD 1974, advisor Oscar Vilches) was recently elected to the National Academy of Engineering "For advances and commercialization in aerosol measurements and instrumentation". She was one of only two women out of about 20 graduate students in her entering class, and at the time there were no female faculty in the Department. In her dissertation work Susanne discovered a new phase in an atomic monolayer of both ^3He and ^4He adsorbed on graphite at 1K, intermediate between commensurate and incommensurate two-dimensional solids, mapped the melting line of a ^3He monolayer

Tuesday, September 27,
2023 - 11:00am, PAB
C-520
(Tahiyat Rahman)

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and measured its heat capacity from 0.05K to about 9K. She also worked with Prof. Robert Charlson of Civil Engineering on measurements of aerosol particles and continued in this field with later appointments at Caltech and UCLA. In 1991 Susanne founding her own company, Aerosol Dynamics, Inc. The American Association for Aerosol Research annually confers the [Susanne V. Hering award](#).

Awards & Grants

- Assistant professor [Masha Baryakhtar](#) is a US [Department of Energy Early Career](#) awardee, which provides 875K in research funding.
- Graduate student [John Cenker](#) has received a UW [Clean Energy Institute Scientific Achievement Award](#).

Assorted Talks & Meetings

2pm September 12, [Science Trust Project](#) coffee hour. Register [here](#).

October 21-23, [annual meeting of APS Northwest Section](#), Nampa ID. Abstract submission deadline September 21.

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

Funding Announcements

- Applications solicited for DOE [Office of Science Graduate Student Research](#) awards, funding thesis research at DOE national labs. Deadline **November 8, 2023**. Application assistant workshops (registration required) on [September 14](#) and [October 10](#).
- Applications solicited for [Gordon and Betty Moore Experimental Physics Investigators Initiative](#) awards. Deadline **October 25, 2023**.
- Applications solicited for [Simons Collaborations in Mathematics and Physical Sciences](#), deadline **November 1, 2023**.

Job Opportunities

- [Assistant professor](#), experimental astro-particle physics, UC Riverside.
- [Physics faculty](#), King Fahd University of Petroleum and Minerals.
- [Postdoctoral fellows](#), Institute for Artificial Intelligence and Fundamental Interactions.
- [Distinguished postdoctoral fellows](#), PNNL.
- [Interdisciplinary program manager](#), [office of workforce development](#), DOE.

Selected Publications

- The DAMIC excess from WIMP-nucleus elastic scattering*, A. Chavarria, H. Lin, K. McGuire, A. Piers, M. Traina, <https://arxiv.org/abs/2308.12176>.
- Electrical Magnetochiral current in Tellurium*, B. Spivak, et al., <https://arxiv.org/abs/2308.10358>.
- Fundamental Neutron Physics: a White Paper on Progress and Prospects in the US*, T. Bowles, W. Dekens, V. Cirigliano, C.-Y. Seng, et al., <https://arxiv.org/abs/2308.09059>.
- Strain Tuning Three-state Potts Nematicity in a Correlated Antiferromagnet*, K. Hwangbo, J. Cenker, E. Rosenberg, Q. Jiang, Di.Xiao, J.-H. Chu, X. Xu, et al., <https://arxiv.org/abs/2308.08734>.
- Measurement of the Positive Muon Anomalous Magnetic Moment to 0.20 ppm*, H. Binney, S. Braun, C. Claessens, A. Fienberg, A. Garcia, J. Hempstead, D. Hertzog, Z. Hodge, P. Kammel, J. Kaspar, J. LaBounty, B. MacCoy, R. Osofsky, H. Swanson, et al., <https://arxiv.org/abs/2308.06230>.
- Scalable Circuits for Preparing Ground States on Digital Quantum Computers: The Schwinger Model Vacuum on 100 Qubits*, R. Farrell, Marc Illa, A. Ciavarella, M. Savage, <https://arxiv.org/abs/2308.04481>.
- Observation of Fractionally Quantized Anomalous Hall Effect*, H. Park, J. Cai, E. Anderson, Y. Zhang, J. Zhu, W. Holtzmann, C. Hu, Z. Liu, J.-H. Chu, D. Cobden, D. Xiao, X. Xu, <https://arxiv.org/abs/2308.02657>.
- Empirical evidence of the inseparability of mathematics and physics in expert reasoning about novel graphing tasks*, C. Zimmerman, S. White Brahmia, et al., <https://arxiv.org/abs/2308.01465>.

UW Coronavirus Response Information

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