



The Physics Observer

Oct 16, 2024

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EVENTS

**Monday, October
22nd, 2024 - 7:30pm,
Kane 130**
[Frontiers of Physics: The
Mystery of Dark Matter in
the Universe](#)

Katherine Freese
University of Texas,
Austin

**Monday, October
28th, 2024 - 4:00pm,
PAA A-102**
[Physics Colloquia: The
Universe We Cannot See](#)
Vera Gluscevic,
University of Southern
California

EXAMS

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 (S. Gupta)

I hope that the school year is off to a good start for everyone. Earlier this month the Nobel Prizes were announced. This year's Physics prize "*for foundational discoveries and inventions that enable machine learning with artificial neural networks*" spans quite the gamut of ideas: from spin systems, to the brain, to large scale data science in particle physics, astrophysics and other areas. This year's Chemistry Nobel prize for protein design lands close to home, with one of the recipients being UW Professor of Biochemistry and Physics adjunct David Baker - Congrats! David is also the son of Physics Emeritus Professor Marshall Baker.

Congratulations also to Kai-Mei Fu for being elected an APS fellow and to Eric Adelberger for winning the Einstein Prize!

Milestones & Arrivals

- ★ Professor [David Hertzog](#) Celebrates 15 years with UW
- ★ Associate Professor [Sanshiro Enomoto](#) celebrates 15 years with UW!
- ★ Human Resources Department Manager [Alison Alcoba](#) celebrates 10 years with UW!
- ★ Research Coordinator [Lauren Bauman](#) Celebrates 5 Years with UW!

- ★ Please welcome [Claudio Savarese](#), Research Assistant Professor for CENPA!

SOCIAL MEDIA

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Awards & Grants

- Professor Martin Savage received \$1.62M from DOE for Simulation InQubator
- Professor Martin Savage received \$145K from ORNL for NQI ORNL
- Assistant Professor Elise Novitski received \$235K from DOE for Neutrino mass by CRES
- Professor Shih-Chieh Hsu received \$110K from UCSC for WATCHEP
- Professor Shih-Chieh Hsu received \$100K from LBNL for Fair AI
- Professor Gray Rybka received \$425K from DOE for Particle Astrophysics
- Associate Professor Armita Nourmohammad received \$180K from NSF for Immune Function
- Professor Kai-Mei Fu received \$34K from ORISE for NV Quantum Biology
- Professor Kai-Mei Fu elected Fellow of the American Physical Society (DQI)
- Emeritus Professor Eric Adelberger wins the 2025 APS Einstein Prize

Assorted Talks & Meetings.

- ❖ October 24-26, 2024, [91st Annual Meeting of the Southeastern Section of the APS, Charlotte, NC](#)
- ❖ October 25-26, 2024, [2024 Annual Meeting of the APS Far West Section, Arcata, CA](#)
- ❖ November 15-17, 2024, [2024 Annual Meeting of the APS Mid -Atlantic Section, Philadelphia, PA](#)
- ❖ October 26, 2024, [WA-AAPT 2024 Meeting](#) in Olympic College in Bremerton, WA

Job Opportunities

- [Assistant or Associate Professor in Quantum Materials](#), University of Georgia
- [Senior Design Physicist](#), Lawrence Livermore National Laboratory
- [Faculty Position in Theoretical High Energy Physics](#), The State University of New Jersey, Rutgers, New High Energy Theory Center
- [Head of Physics Operations](#), Research Physicist, Princeton University
- [Academic Unit Head, Physics & Astronomy](#), James Madison University
- [Department Chair and Professor of Physics](#), University of Michigan
- Faculty positions in [Observational Astronomy](#) and [Experimental Condensed Matter Physics](#) at the University of South Carolina
- Faculty position in [Experimental Soft/Living Matter Physics](#) at the University of Pennsylvania
- Faculty position in [Nuclear Theory](#) at Indiana University
- Faculty position in [Experimental Nuclear and Hadronic Physics](#) at New Mexico State University
- Faculty positions in [Molecular and Cellular Biophysics](#) and [AI-driven Experimental Quantum Science](#) at Vanderbilt University

Selected Papers

- hklhop: a Selection Tool for Asymmetric Reflections of Spherically Bent Crystal Analysers for High Resolution X-ray Spectroscopy, Jared E. Abramson, Yeu Chen, Gerald T. Seidler, <https://arxiv.org/abs/2409.10698>
- A Ray Tracing Survey of Asymmetric Operation of the X-ray Rowland Circle Using Spherically Bent Crystal Analyzers, Yeu Chen, Gerald T. Seidler, <https://arxiv.org/abs/2409.13119>
- Finite- and infinite-volume study of $DD\pi$ scattering, Sebastian M. Dawid, Stephen R. Sharpe et al., <https://arxiv.org/abs/2409.17059>
- Intruding the sealed land: Unique forbidden beta decays at zero momentum transfer, Chien-Yeah Seng, Ayala Glick-Magid, Vincenzo Cirigliano, <https://arxiv.org/abs/2409.18115>
- Loop-Diffusion: an equivariant diffusion model for designing and scoring protein loops, Kevin Borisiak, Armita Nourmohammad et al., <https://arxiv.org/abs/2409.18201>
- Massive neutrinos and cosmic composition, Marilena Loverde, Zachary J. Weiner, <https://arxiv.org/abs/2410.00090>
- On the origin of anomalous hysteresis in graphite/boron nitride transistors, Dacen Waters, Derek Waleffe, Ellis Thompson, Jordan Fonseca, Xiaodong Xu, David Cobden, Matthew Yankowitz, et al., <https://arxiv.org/abs/2410.02699>
- The fixed probe storage ring magnetometer for the Muon g-2 experiment at Fermi National Accelerator Laboratory, Erik Swanson, Martin Fertl, Alejandro Garcia, Cole Helling, Ronaldo Ortez, Rachel Osofsky, David A. Peterson, Matthias W. Smith, Tim D. Van Wechel et al., <https://arxiv.org/abs/2410.08279>
- An Accessible Planar Ion Trap for Experiential Learning in Quantum Technologies, Robert E. Thomas, Cole E. Wolfram, Noah B. Warren, Isaac J. Fouch, Boris B. Blinov, Maxwell F. Parsons, <https://arxiv.org/abs/2410.08301>
- Non-volatile Tuning of Cryogenic Optical Resonators, Arka Majumdar, Mo Li, et al., <https://arxiv.org/abs/2410.08572>
- Meta-optical Imaging at Thermal Wavelengths, Anna Wirth-Singh, Aurelia M. Brook, Johannes E. Fröch, Arka Majumdar, et al., <https://arxiv.org/abs/2410.11122>
- A semi-analytic estimate for the effective sound speed counterterm in the EFTofLSS Caio Nascimento, Marilena Loverde et al., <https://arxiv.org/abs/2410.11949>