



# The Physics Observer

September 6, 2019

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## UPCOMING EVENTS

- Friday September 20, 2019, 12:00pm-6:00pm:

[UW Postdoc Association Research Symposium](#), South Campus Center 316

- Thursday September 26, 2019, 3:00pm:

[EPIC: Empowering Prevention & Inclusive Community](#), PAT C-520.

- Sunday September 29, 2019, 3-6pm:

Start of Year Department BBQ, [College Club of Seattle](#), 11 E. Allison St., Seattle 98102.

- Wednesday October 9, 2019, 7:30pm:

[Frontiers of Physics Public Lecture](#), Sean Carroll, "The Many Worlds of Quantum Mechanics," Kane Hall 130.

## Welcome

This is the second issue of the Physics Observer, 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](#).

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## Chair's Corner (L. Yaffe)

I want to highlight a number of our upcoming special events:

The department will host a Start of the Year BBQ on Sunday, September 29, from 3-6pm at the College Club of Seattle, a rowing & social club located at 11 E. Allison St. (just off Eastlake across the University bridge, a 15 to 20 minute walk from the department).

Registration is now open for the upcoming Frontiers of Physics public lecture by Sean Carroll at 7:30pm on October 9. Register [here](#).

The [Thouless Institute of Quantum Matter](#) (TIQM) will hold its inaugural meeting during the MLK weekend, January 18-20, 2020. Many outstanding condensed matter physicists will be speaking. Formal invitations and registration information will be posted in due course.

Finally, the department will also be hosting a scientific meeting honoring Ann Nelson's legacy in particle physics some time next spring. Specific dates and more information in due course.

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## Milestones

- ❖ Principal Lecturer R. Daryl Pedigo will retire in October after 24 years at the University of Washington.
- ❖ Senior Computer Specialist Bill Somsy has just completed his 25th year of service at the University of Washington.
- ❖ Research Professor Peter Doe has just completed his 25th year of service at the University of Washington.

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## Research Awards and Grants

- ❖ Assistant professor Lukasz Fidkowski is a co-recipient of the 2020 New Horizons in Physics Prize, for contributions to the understanding of topological states of matter. Congratulations!

- Monday December 9, 2019, 9-10am:

Laboratory Safety Awards & Innovations Event, HUB.

- Sat-Mon January 18-20, 2020: Thoulessfest.

### PHYSICS COLLOQUIUA

- September 30, 2019 - 4:00pm, PAA 102

"Cavity Quantum Electrodynamics with Broad Quantum Emitters," Arka Majumdar, University of Washington

### GENERAL EXAMS

- September 30, 2019, 11:00am, PAT C421

Jun Hui See Toh (Advisor: Subhadeep Gupta)

### SEMINARS

See [Here](#)

### CONTACT US

[physrecp@uw.edu](mailto:physrecp@uw.edu)

[amhall2@uw.edu](mailto:amhall2@uw.edu)

- ❖ Boris Blinov and Kai-Mei Fu received a 900K award from DOE for Quantum entanglement between a solidstate spin and trapped ion via a photonic link.
- ❖ Kai-Mei Fu received 148K NSF grant for the Institute for Hybrid Quantum Systems.
- ❖ Assistant Professor Matthew Yankowitz was a finalist for the 2019 Blavatnik Regional Award for Young Scientists administered by the New York Academy of Science.
- ❖ Paul Wiggins received 177K grant from NIH to study replication resolved in the living cell: replisome dynamics, stability and structure.
- ❖ Toby Burnett received 25K grant from NASA for GLAST (Gamma Large Area Space Telescope) computing.
- ❖ Jens Gundlach received 713K NIH grant for high accuracy nanopore sequencing.
- ❖ Xiaodong Xu received 1.5M grant from the Air Force Office of Scientific Research for new science from two dimensional magnetic heterostructures.
- ❖ Xiaodong Xu received 820K grant from DOE for programmable quantum materials.

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## **Funding and Meeting Announcements**

Applications open for Microsoft Research Faculty Fellowships, \$200K for 2 years. If interested, discuss with the chair. Internal UW deadline: September 9, 2019. More info:

<https://depts.washington.edu/research/funding/opportunities/2166/>

Applications open for US citizen or permanent resident PhD students to attend the 70th Heidelberg Lindau Nobel Laureate meeting, June 28 – July 3, 2020. Deadline September 13, 2019. More info:

<https://www.orau.org/lindau/>

APS International Research Travel Award Program offers up to \$2,000 for travel expenses for collaborations with physicists in developing countries. Deadline September 20, 2019. More info:

[https://www.aps.org/programs/international/programs/travel-grants.cfm?utm\\_source=reminder&utm\\_medium=email&utm\\_campaign=IRTAP%202019](https://www.aps.org/programs/international/programs/travel-grants.cfm?utm_source=reminder&utm_medium=email&utm_campaign=IRTAP%202019)

Applications open for Blavatnik Awards for Young Scientists, \$250,000. Open to faculty born in or after 1978. Internal UW deadline: September 26, 2019. More info:

<https://depts.washington.edu/research/funding/opportunities/2165/>

Applications open for Radcliffe Fellowships (77K for two semesters at Radcliffe), post-PhDs only. Deadline October 3, 2019. More info:

[https://www.radcliffe.harvard.edu/fellowship-program/become-fellow?utm\\_source=fellowship\\_program&utm\\_medium=email&utm\\_campaign=fellowship\\_outreach&utm\\_term=RIAS\\_becomefellow\\_2021](https://www.radcliffe.harvard.edu/fellowship-program/become-fellow?utm_source=fellowship_program&utm_medium=email&utm_campaign=fellowship_outreach&utm_term=RIAS_becomefellow_2021)

Pre-proposals solicited for NSF ADVANCE 5 year projects, up to \$3M, focused on building a more diverse STEM workforce. Internal UW deadline: 5pm, October 3, 2019. More info:

<https://depts.washington.edu/research/funding/opportunities/2167/>

UW Global Innovation Fund offers up to \$20,000 for cross disciplinary and cross-continent collaborations. Deadline November 1, 2019. More info: <http://uw.edu/globalaffairs/gif>

Applications open for 2020 Atoms Travel awards (500 Swiss francs) for postdocs or PhD students to attend an international conference. Deadline November 30, 2019. More info: <http://www.mdpi.com/journal/atoms/awards/713>

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## Job Opportunities

Instructors wanted for LEGO engineering camps (K-8). See <https://playwell.workbrightats.com/jobs/139290.html>.

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## Selected Publications

- ❖ "Improving indistinguishability of single photons from colloidal quantum dots using nanocavities", A. Saxena, Y. Chen, A. Ryou, C. Sevilla, P. Xu, A. Majumdar, <https://arxiv.org/abs/1908.07588>.
- ❖ "Sparsening algorithm for multi-hadron lattice QCD correlation functions", W. Detmold, D. J. Murphy, A. V. Pochinsky, M. J. Savage, P. E. Shanahan, M. L. Wagman, <https://arxiv.org/abs/1908.07050>.
- ❖ "Numerical exploration of three relativistic particles in a finite volume including two-particle resonances and bound states", F. Romero-López, S. R. Sharpe, T. D. Blanton, R. A. Briceño, M. T. Hansen, <https://arxiv.org/abs/1908.02411>.
- ❖ "New technologies for discovery", A. Chavarria et al., <https://arxiv.org/abs/1908.00194>.