



The Physics Observer

March 4th, 2020

In This Issue

- [Welcome](#)
- [Chair's Corner](#)
- [Upcoming Events](#)
- [Milestones & Arrivals](#)
- [Research Awards & Grants](#)
- [Funding & Meeting Announcements](#)
- [Job Opportunities](#)
- [Selected Publications](#)

UPCOMING EVENTS

- March 24-27, 2020: [Axions Beyond Gen 2](#)
 - May 30-June 1, 2020: [Summitting the Unknown, Celebrating the Legacy of Ann Nelson](#)
 - July 11-20, 2021
Snowmass 2021:
High Energy Physics
Community Planning
- ## PHYSICS COLLOQUIA
- Monday, March 9, 2020
- 4:00pm to 5:00pm:
[TBA](#), Arvind Murugan
- ## PHYSICS FINAL & GENERAL EXAMS
- Tuesday, March 10,
2020-1:00pm, NPL 178

Final Exam: A Fourier-Bessel Test of the Gravitational Inverse-Square Law, John G. Lee (Advisors: Blayne Heckel)

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)

As I write this, a big uncertainty is what impact the Covid-19 pandemic-to-be will have on the UW, Washington state schools, the local area, and the international science community. The big APS March meeting, scheduled to run this week in Denver, was canceled at the last moment. Depending on how things progress, many more scientific meetings may be canceled in the next few months. I'm hoping for the best...

On a very different note, Prof. Kai-Mei Fu and graduate students Jennifer Lillieholm, Natalie Klco, and Srivatsa Chakravarthi are featured in a slickly-produced Microsoft video about quantum science education. Check it out here: <https://youtu.be/xivcAE4GGWc>. Of course, quantum science education is hardly new, it has been a central part of physics education for nearly 100 years!

Milestones & Arrivals

- ❖ Director of Academic Services and Graduate Program Advisor, Catherine Provost, completed 30 years of service at the University of Washington.

Research Awards and Grants

- ❖ Professor Subhadeep Gupta received 182K Air Force Office of Scientific Research grant for few-body collisions and reactions with ultracold molecules of YbLi.
- ❖ Professor David Hertzog received 500K US DOE grant for FY 2017 continuation of solicitation for the office of science financial assistance program.
- ❖ Associate Professor Shih-Chieh Hsu received 3K NSF grant for QuarkNet project.
- ❖ Professor Henry Lubatti received 24K US DOE grant for pixels front-end chip and a 218K Brookhaven National Laboratory grant for the maintenance and operation of the WBS 3.6 TDAQ subsystem.
- ❖ Professor Xiaodong Xu received 43K Pacific Northwest National Laboratory grant for new quantum phenomena by combining 2D materials with complex oxides.
- ❖ The Physics Chair, Larry Yaffe, 15K Howard Hughes Medical Institute (HHMI) grant for HHMI physics students.

Funding and Meeting Announcements

Applications open for the Spring 2020 round of Laura Bassi Scholarships which provide editorial assistance for a manuscript or thesis. See <https://editing.press/bassi> for details. Deadline **March 25th**. The Laura Bassi Scholarship, which awards a total of \$8,000 thrice per annum, was established by Editing Press in 2018 with the aim of providing editorial assistance to postgraduates and junior academics whose research focuses on neglected topics of study, broadly construed. All currently enrolled master's and doctoral

and Eric G. Adelberger),
University of Washington

➤ Friday, March 13, 2020
- 2:30pm, NPL 178

General Exam: Nick Du
(Advisor: Leslie
Rosenberg), University of
Washington

➤ Tuesday, March 17,
2020-10:30am, PAT C-
520

General Exam: Dake Zhou,
(Advisor: Sanjay Reddy),
University of Washington

➤ Wednesday, March 18,
2020 - 2:00pm, PAT C-
607:

Control Theory for C.
elegans Calcium Imaging
Dynamics, Charles S.
Fieseler (Advisor: Jose
Kutz), University of
Washington

SEMINARS

See [Here](#)

CONTACT US

physrecp@uw.edu

amhall2@uw.edu

candidates are eligible to apply, as are academics in the first five years of their employment. Applicants are required to submit a completed application form along with their CV through the application portal by the relevant deadline.

Rensselaer is hosting a boot camp and summer school on computational physics, “Advanced Cyberinfrastructure Training for Modeling Physical Systems at Rensselaer Polytechnic Institute,” with particular emphasis on applications that require high performance computing, June 3 – June 26, 2020 (Troy, NY). The boot camp and summer school is aimed at advanced undergraduates and all levels of graduate students. Housing, travel and meals are included. More information can be found [here](#). Those who are interested in applying should go to the following [web form](#) to complete the application process.

DARPA is hosting the 2020 Electronics Resurgence Initiative (ERI) Summit & MTO Symposium, August 18 – 20, 2020 in Seattle, Washington. The 2020 Summit will showcase technical achievements and demonstrations while highlighting leading voices from end users in the semiconductor and defense sectors. As with previous Summits, the 2020 event will also feature informative poster and networking sessions, as well as a series of collaborative workshops where attendees are encouraged to share new ideas. More information [here](#).

Job Opportunities

- ❖ Lecturer in Physical Sciences, University of Washington, Bothell. See <https://physicaloxy.com/lecturer-in-physical-sciences,i8146.html>.
- ❖ Lecturer-Part Time (TEMPORARY)-Physics, University of Washington, Tacoma: To teach the 6 credit undergraduate courses Mechanics and Electromagnetism with lab, in Spring Quarter 2020 with instruction dates of March 30 - June 5, 2020. Applications will be accepted until the position is filled. Applications must include a curriculum vita, three letters of reference, and a cover letter outlining qualifications and approach to improving student success. Questions can be emailed to Joyce Dinglasan-Panlilio (jdillingpan@uw.edu), the chair of the Division of Sciences and Mathematics.
- ❖ Contract Faculty and Department Chair of Applied Physics, New York University, Department of Applied Physics. See <https://physicaloxy.com/contract-faculty-and-department-chair-of-applied-physics,i8061.html>
- ❖ Assistant Researcher in Physics, University of California Berkeley. See <https://physicaloxy.com/assistant-researcher-in-physics,i8294.html>.
- ❖ Researcher in Biophysical Studies, University of Gothenburg, Faculty of Science. See <https://physicaloxy.com/researcher-in-biophysical-studies,i8285.html>.
- ❖ Research Associate in Physics, Imperial College, London, Department of Physics. See <https://physicaloxy.com/research-associate-in-physics,i8282.html>.
- ❖ Research Scientist in Space Sciences, University of California Berkeley. See <https://physicaloxy.com/research-scientist-in-space-sciences,i8301.html>.

Selected Publications

- ❖ “New Test of the Gravitational $1/r^2$ Law at Separations down to $52 \mu\text{m}$ ”, J. Lee, E. Adelberger, T. Cook, S. Fleischer, B. Heckel, <https://arxiv.org/pdf/2002.11761>
- ❖ “Tunable correlation-driven symmetry breaking in twisted double bilayer graphene”, M. He, Y. Li, J. Cai, Y. Liu, K. Watanabe, T. Taniguchi, X. Xu, M. Yankowitz, <https://arxiv.org/pdf/2002.08904>
- ❖ “Fission Fragment Excitation Energy Sharing Beyond Scission”, A. Bulgac, <https://arxiv.org/pdf/2002.07244>
- ❖ “Limits on the Stochastic Gravitational Wave Background and Prospects for Single Source Detection with GRACE Follow-On”, M. Ross, C. Hagedorn, E. Shaw, A. Lockwood, B. Iritani, J. Lee, K. Venkateswara, J. Gundlach, <https://arxiv.org/pdf/2002.02044>
- ❖ “The size of the immune repertoire of bacteria”, S. Bradde, A. Nourmohammad, S. Goyal, V. Balasubramanian, <https://www.pnas.org/content/early/2020/02/14/1903666117.short?rss=1>