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Physics Digest

News, info, and updates for Ph.D. students in Physics at UW–Madison

November 19th, 2021

Announcements

Spring 2022 Enrollment

Spring 2022 enrollment will begin on Monday, November 15th. If you need to enroll in Physics 990, please review the instructions for adding by course number and the Physics 990 course number list [here](#). The Graduate School [maintains a policy page on minimum enrollment requirements](#). For questions, contact [Sharon Kahn](#).

Spring 2022 Course Offerings: Life Sciences Communication

The Department of Life Sciences Communication is excited to offer [several topics courses](#) this spring that are open to grad students in any discipline focusing on misinformation in science, social media analytics, visual science communication, and strategic science communication. All of the courses also count toward the [Graduate Certificate in Science Communication](#) and our [Ph. D. Minor in Life Sciences Communication](#). Please send all questions to [Tera Wagner](#).

Spring 2022 Course Offering: Mobility and Inclusion in International Higher Education

This interdisciplinary graduate course connects the discussion on diversity, equity, and inclusion (DEI) with the efforts of internationalization of higher education. Course participants will delve into inquiries on how promoting mobility in international education and advancing DEI in higher education can benefit and enhance each other. ELPA 940 will be taught in Spring 2022, please contact [Professor Meijia Li](#) for any questions or to learn more.

Memberships Available: UW-Madison APS Chapter

The [American Physical Society](#) (APS) has approved UW-Madison for an APS Chapter, which is a new program for graduate students and early career scientists (defined as having received their PhD within the past five years). There are no fees or responsibilities required to be a member of the chapter and the chapter can request speakers from the APS and will receive a small grant every 6 months. In addition, chapter members who are also APS members may have the opportunity to apply for certain travel grants. More information on the program can be found [here](#). The chapter will be holding officer elections beginning October 11th and you can sign up to be a member [here](#). For more information, contact [Luca Riitano](#).

Upcoming Events

Department of Physics Event Calendar

See the departmental events calendar to be sure you don't miss any of the upcoming seminars, workshops, or journal clubs!

Student Affairs: Campus Happenings

See the UW Student Affairs news website and scroll to the "current happenings" listing each week.

Student Employee Diversity Forum Series

Date: November 18th - 22nd, 2021

The University of Wisconsin-Madison will be hosting a series of virtual sessions for student employees on topics ranging from self care to equity in the workplace. More information on individual sessions can be found [here](#).

Professional Development

QED-C Student Research ePoster Sessions

The Quantum Economic Development Consortium hosts monthly Student Research ePoster Sessions in which students present on their research in quantum computing to a diverse audience of researchers, employers, students, and QED-C community members. Presentations last 10 minutes followed by a 5-minute Q&A session. This is a fantastic opportunity to expand on your presentation skills and to display your prowess in the field of quantum computing. If you are interested in participating, email the office [here](#).

Delta Program: Understanding Levers of Change in Academia

Date: November 24th, 2021

Enacting change in big, complex institutions is a daunting task — especially for grad students, postdocs, and early career faculty — and knowing the levers of power on your own campus is an essential first step. In this two-part workshop, participants will do a deep dive into the structural aspects of change (regimented processes, deadlines, and rules) and the social components of power in higher education (key stakeholders, institutional culture, and unspoken norms). Click [here](#) for more information and to register.

Argonne Seminar: Paul Kairys

Date: November 29th, 2021

Key to the continued development of chemical, material, and information sciences is the modeling and prediction of quantum mechanical phenomena. While classical computing methods are generally inefficient for such tasks, quantum simulation offers an alternative paradigm where a programmable quantum device is used to emulate the phenomena of an otherwise distinct physical system. Unfortunately, imperfect construction and operation of quantum simulators introduces challenges preventing their widespread adoption. This talk will discuss strategies for mitigating these challenges by implementing quantum simulation using device control and calibration. Click [here](#) to join the meeting.

Overcoming by Understanding Academic Writer's Block

Date: November 30th, 2021 1 - 2:30 PM

Facilitator Aurora Chang, PhD, will focus on the stories we tell ourselves about who we are as academic writers and how that narration impacts our perceived ability to write. She'll offer simple, practical ways to overcome academic writing blocks when they hit. Click [here](#) to register.

Getting Started in Outreach: Opportunities for Early-Career Trainees

Date: December 6th, 2021; 4 - 5 PM

UW-Madison is rich with opportunities for graduate students and postdoctoral scholars to engage with the public. In this panel discussion, you'll learn how to find opportunities to do outreach in rewarding ways and how to share your research most effectively with others. You'll also hear from experts who lead public engagement programs and receive a list of outreach programs in the university community. This hybrid event is intended for early-career trainees, especially graduate students and postdoctoral scholars.

[Registration](#) is requested and includes in-person and virtual options.

Employment and Funding Opportunities

Northwestern University: Tenure Track Assistant/Associate Professor in Quantum Information

The Department of Electrical and Computer Engineering at Northwestern University is seeking outstanding candidates who are excited by the opportunity to help build the future of quantum information at a world-class university. Applicants must have completed, or will have completed by the start date, a Ph.D. or equivalent degree in Electrical Engineering, Computer Engineering, Physics, or a closely related field, and have demonstrated excellence in experimental research within the broad area of quantum information. Ideally, the start date would be September 1, 2022. Click [here](#) to apply and send all questions to [Selim Shahriar](#).

The Ohio State University: Tenure Track Faculty

The Ohio State University and the Department of Electrical and Computer Engineering are inviting applications for a tenure track faculty position in applied electromagnetics to support the priorities of the ElectroScience Laboratory, a major center of excellence in the College of Engineering. We are interested in a broad pool of applicants with research interests and expertise in millimeter-wave circuits and systems, optics and photonics, technologies for quantum information science and engineering, adaptive antennas and array signal processing, mixed-signal microelectronics, or other areas of applied electromagnetics. Click [here](#) to apply and send all questions to [Fernando Teixeira](#).

Technical University of Munich: PhD Position in Optomechanics, Quantum Technologies

The Technical University of Munich is expanding their nano- and optomechanics research topics and are looking for an enthusiastic person who wants to make this his/her Ph.D. project. The envisioned starting date is in April 2022. Optomechanics is the field where light is used to measure and alter the dynamics of mechanical resonators. In this project, you are going to have a lot of fun with nanomechanical devices that you will make in the nanofabrication facilities on campus. With our existing setups, you will do measurements in ambient, in vacuum, and at cryogenic temperatures. During your Ph.D., you will encounter, and eventually master, all aspects of chip-based optomechanics, ranging from the concept phase, modeling, device design and nanofabrication, via measurements and data processing, to writing papers and presenting the results at international conferences. As part of all our positions, you are also expected to take part in teaching, training, supervision of student projects, and in other supporting activities within our group. Click [here](#) to apply and send all questions to [Xu Han](#).

Chicago Quantum Exchange: Summer 2022 Internships

The following Chicago Quantum Exchange (CQE) members and partners are soliciting applications for summer 2022 interns: Argonne National Laboratory, Boeing, Corning, CQE: Open Quantum Initiative Undergraduate Fellowship, IBM, Protiviti, & Super.tech. Click [here](#) for further detail on each internship. The [CQE website](#) is also kept up to date with the latest internship announcements.

Ernst & Young Quantitative Advisory Service: Multiple Openings

Ernst & Young provides professional services to large global/US banks with a specialized focus on quantitative methods and capital market products, including front-office pricing, Market, Counterparty Credit, and other risk models. They have both [full-time](#) and [part-time](#) positions available. To apply, submit an application on the website and email [Fangzhou Zhang](mailto:Fangzhou.Zhang) with a copy of your resume.

Useful Links

[Dates and Deadlines from the Office of the Registrar](#)

[Warrant Request Form](#)

[Graduate School Degree Deadlines](#)

Connect with us!



[Department of Physics](#)

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This newsletter is for Ph.D. students in Physics at UW–Madison; we update the mailing list at the start of each semester. Please contact phddigest@physics.wisc.edu with any questions.