

Yale Department of Physics

Yale Physics Newsletter

July 20, 2018

News

Yale University's application to become an APS Bridge Program Member Institution has been accepted!

More information and the list of current Bridge Member Institutions is available on the APS Bridge Program website. Membership includes a subscription to the APS Bridge Program email list, where information about APS Bridge Program activities, funding opportunities, and other information related to improving diversity in graduate education are posted.

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Summer Research in Physics!

Heather Harrington (YC'19 Physics (Intensive) Major) Summer Research - Heather is working on simulating nonlinear optics for the AEGIS experiment at CERN. The laser system of the experiment is designed to excite positronium (a bound state of an electron and a positron) into a highly excited state to extend its lifetime. This is done so that it can be used to form antihydrogen and make high precision gravitational tests of neutral antimatter. A UV laser with a wavelength of 205nm excites the positronium to $n=3$, and then an IR laser at 1650-1750nm excites it further to a Rydberg state of $n>15$. The 205nm beam is created via Sum Frequency Generation in a beta barium borate crystal. The goal of Heather's simulation is to take the spectra of the two noncollinear input beams and output the spatially resolved spectrum of the generated beam. This is important because the spectral characteristics of the UV beam determines the Doppler profile of the excited positronium.

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Center for Teaching and Learning - Can you explain your research to a 12-year-old?

Flipped Science Fair, presented by Yale Science Diplomats

AUDITION: JULY 2 – 26
Various Times & Locations
New Haven, CT

The Flipped Science Fair flips the traditional science fair format on its head: middle school student judges will evaluate graduate students and postdocs presenting their current research.

Save the Date

Fall term classes start on August 29, 2018. **Please note that Monday classes will meet on Friday, August 31, 2018 due to the Labor Day Holiday.**

Seminars

Thursday, July 26 Nuclear Particle Astrophysics (NPA) Seminar. Audrey Francisco, CERN, "Quarkonium States as a Probe of the QGP at LHC", WL 216 at 1:00pm. Lunch will be served in WLC-245 from 12:00 to 1:00 pm. [RSVP required.](#)

Monday, July 30 2018 Wright Lab Undergraduate Summer Research Presentations, Room TBA at 11:00a-12:30p (with pizza lunch – [RSVP](#)).

Wednesday, August 1 2018 Wright Lab Undergraduate Summer Research Presentation, Room TBA at 9:30a-11:00a.

Friday, August 24 Graduate Student Orientation, SPL 3rd Floor Lounge at 9:00am. Host: Sandra Tranquilli.

Thursday, August 30 Qualifying Exam, Part 1 (9:00am-11:30am) and Part 2 (2:00pm-4:30pm) in SPL 57.

Friday, August 31 Qualifying Exam, Part 3 (9:00am-11:30am) and Part 4 (2:00pm-4:30pm) in SPL 57.

For more seminars see: <http://physics.yale.edu/calendar>

For the audition:

1. Give a < 5 minute talk about an aspect of your research
2. Make sure a middle schooler can understand your talk
3. Be clear, concise, and explain your scientific reasoning
4. Prepare a non-animated slide to visually support your talk

Auditions run July 2 through July 26, 2018. [Contact Richard Crouse with any questions.](#)
[Sign up for an AUDITION](#)

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Center for Teaching and Learning - Fall 2018 Yale Scientific Teaching Course for Graduate Students & Postdocs

WEDNESDAYS

9 a.m. - 11 a.m.

301 York Street

The CTL invites Yale University graduate students and postdocs to apply for the semester-long course, **B&BS 879: Theory and Practice of Scientific Teaching for Life**

Scientists.

The goal of this course is to improve undergraduate science education by training a new generation of scientific teachers to bring the spirit and rigor of research into the undergraduate classroom. Participants in the course will learn evidence-based teaching strategies, including:

- engaging students through active learning
- incorporating inclusive teaching practices
- developing effective assessments

Participants will then apply the knowledge they have learned to developing teaching materials for dissemination to the larger scientific teaching community. The Fall 2018 instructor is Dr. Elizabeth Morse Luoma, STEM Education Program Director at the CTL. Applications are due Wednesday, August 15. Classes will begin on Wednesday, August 29.

[Learn More & Apply](#)

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Wright Lab will host three regular seminars and two new discussion groups in 2018-19: NPA, WIDG, YPPDO, DMDG and Instrumentation Lunch.

For descriptions of each of the series, more information, and upcoming events [please see the attached flyer](#) or <https://wlab.yale.edu/seminars>

We invite suggestions for speakers and topics; please send them and any questions for the seminar organizers to wlab-seminars@mailman.yale.edu or to the individual contacts for each series as listed on the attached flyer.

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University Registrar's Office News - 2018-2019 Course Information Now Available in Yale Course Search

2018-2019 course information is now available for viewing in Yale Course Search (YCS). [Yale Course Search](#) is now the exclusive online application for viewing course information, replacing the Online Course Information (OCI) and Yale Blue Book (YBB) systems. YCS has been implemented as a more user friendly application for searching courses, which includes a responsive design and an easier user interface. For more information about YCS, including helpful tutorials and FAQs, see the [Yale Course Search Resources webpage](#). The features of YCS allow you to perform similar functions as you did in OCI and YBB, such as:

- Search for course information
- Find classroom assignment information when it becomes available
- View final exam information when it becomes available

Coming soon, YCS will be further enhanced to include:

- Historical data going back five years
- The ability to search across all terms
- The ability to link directly to individual courses

For more news please see <http://physics.yale.edu/news>

Announcements

For further information on any of the items included here or if you would like to contribute to the next newsletter, send email to [Daphne Klemme](#).

[Please click here for updates on the Yale Science Building, including a new logistics plan](#). The project encompasses the construction of a new state of the art sciences laboratory at the approximate location of the demolished J.W. Gibbs building, a comprehensive renovation of the KBT Plaza, a lecture hall, and a common area at the south end of KBT Plaza.