

Yale Department of Physics

Yale Physics Newsletter

September 29, 2017

News

We have a Lost & Found area in room 34. All items found in SPL will be left there. Anyone can help you with this. All unclaimed items will be donated or discarded at the end of each semester.

§

Emily Coates (co-instructor with Sarah Demers for PHYS 115-The Physics of Dance) featured in [Yale News](#) as part of the Franke Program in Science and the Humanities joint event with the Yale Quantum Institute.

§

The 5th Biophysics and Structural Biology Symposium will take place at the Yale West Campus Conference Center on Wednesday, October 18. For more information and to register, [click here](#).

§

Instructional Lab 3D printer - Educational and personal use guidelines. As you may or may not be aware, Instructional Labs has purchased a 3D printer for use in lab experiment design, demonstration development and for general instructional support. If you have something you would like to 3D print in PLA plastic let us know. We may not have time to design your item, but if you have a 3D model that can be converted to Gcode we can set it up to print very quickly.

Small jobs for personal use will also be considered as long as the material costs are modest. Modest means in the neighborhood of 200 grams or less. Departmental and educational mission related jobs will always take priority.

Please contact Stephen Irons (Stephen.iron@yale.edu) if you have an item you'd like to print. Below are the specs of our Lulzbot TAZ 6 printer:

TAZ 6 TECH SPECS

- Print Surface: Heated borosilicate glass bed covered with PEI film
- Print Area: 280mm x 280mm x 250mm (11.02in x 11.02in x 9.8in)
- Top Print Speed: 200mm/sec (7.9in/sec)
- Print Tolerance: 0.1mm (0.0039in) in X and Y axes. Z axis is dependent on layer thickness

Save the Date

October 14, 2017 – Yale Physics Olympics 20th Year!

Seminars

Monday, October 2 Department of Applied Physics Solid State & Optics Special Seminar. Prof. Jacob (Koby) Scheuer, Tel-Aviv University, "Integrated micro-cavities and lasers: New materials and applications", Becton Seminar room at 11:00am. Host: Prof. Hui Cao.

Monday, October 2 Yale Physics Club. Florian Schreck, Amsterdam, "Ultracold Strontium for Clocks, Gravimeters and Many-Body Physics", SPL 57 at 3:30pm. Tea served after the talk in SPL Third Floor Lounge. Host: Nir Navon.

Monday, October 2 Department of Molecular Biophysics and Biochemistry Departmental Colloquium. Alfonso Mondragon, Northwestern University, "The Mechanism of Type IA Topoisomerases: from Structural to Single Molecule Studies", Bass 305 at 4:00pm. Tea at 3:45pm. Host: Christian Schlieker.

Tuesday, October 3 Atomic Physics Seminar. Georgia Mansell, Australian National University, "Squeezed light for current and future gravitational wave detectors", SPL 52at 1:00pm. Host: Jack Harris.

Tuesday, October 3 Yale Center for Astronomy and Astrophysics Seminar. Adam Leroy, Ohio State University, "Observing the Physical State of the Cold Gas in Nearby Galaxies", WTS A-51, at 2:30pm. Coffee/tea and cookies will be served before the seminar at 2 PM in the coffee lounge of Steinbach Hall (52 Hillhouse).

Tuesday, October 3 Particle Theory Seminar. Huajia Wang, University of Illinois at Urbana-Champaign, "Quantum information, causality and constraints on QFTs", SPL 52 at 3:30pm.

Wednesday, October 4 Department of Applied Physics Solid State & Optics Seminar. Karen Grutter, University of Maryland, "Cavity Optomechanics in Photonic/Phononic Crystals", Becton Seminar room at 1:00pm. Host: Jack Harris.

Wednesday, October 4 Department of Molecular, Cellular and Developmental Biology Seminar. Michael Boyce, Duke University, "Cell signaling through protein glycosylation", SCL 160 at 4:00pm. Host: Stavroula Hatzios.

Thursday, October 5 Astronomy Colloquium. Gus Oemler, Carnegie, "The Death of Spirals", WTS A-51 at 2:30pm.

Friday, October 6 Department of Applied Physics Solid State & Optics Special Seminar. Prof. Avi Zadok, Bar-Ilan University, "Guided acoustic waves in optical fibers: sensors, cross-talk and oscillators", Becton Seminar room at 3:30pm. Host: Peter Rakich.

Continued on next page

Friday, October 6 Yale Physics Professional Development Organization and Physics Climate & Diversity Committee Event. Stephen Albright, Yale University, "Bystander Intervention Workshop", SPL 3rd Floor lounge at 3:45pm.

Friday, October 6 Yale Center for Teaching and Learning. **Teaching at Teaching Intensive Institutions:** Conference Agenda

Date & Time: Friday, October 6 | 9:00 a.m.-3:00 p.m.

Location: Westfield State University

This free one-day regional event will bring together graduate students, postdocs, and faculty to discuss what it's like to work at teaching intensive institutions and how to apply for faculty positions at these schools. Graduate students and postdocs will engage with faculty and deans from a wide range of teaching intensive institutions through a series of talks, panel presentations, and networking opportunities. Faculty at teaching intensive Institutions will also be available to review and offer advice on CVs and cover letters. If you are contemplating a career at a community college, regional comprehensive university, or liberal arts college, you won't want to miss this event! [Register for the conference online via the SurveyMonkey Form.](#)

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

Continued from first page

- Layer Thickness: 0.050mm – 0.50mm (0.002in – 0.02 in), Dependent on nozzle size
- Capable Materials: ABS, PLA, HIPs, PVA, wood filled filaments, Polyester (Tritan), PETT, bronze and copper filled filaments, Polycarbonate, Nylon, PETG, conductive PLA and ABS, UV luminescent filaments, PCTPE, PC-ABS, and more every day
- Filament Diameter: 3.00mm

§

Graduate School offers added support for PhD.

Students and families. The Graduate School of Arts and Sciences will provide additional flexibility and support to Ph.D. students and their families, Dean Lynn Cooley has announced.

Under the new [Ph.D. Student Family Support Policy](#), Ph.D. students with a child will receive an annual subsidy of \$4,500 that can be used for any family expense. In order to reach all Ph.D. student parents, Yale is increasing the amount it spends on family support by 24% (an increase of more than \$400,000). [Click here](#) for the full story.

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.

§

Yale Health Center – Get your Flu shot!

[Flu Shot Information](#)

Flu clinics are available on a walk-in basis for Yale Health members, Yale University employees, and Yale University students. Children under 18 must be accompanied by a parent or guardian. No registration is necessary.

[Jobs](#)

Sandia National Laboratories is accepting applications for the [2018 Jill Hruby Fellowship in National Security Science and Engineering](#). This postdoctoral fellowship aims to develop women in the engineering and science fields who are interested in technical leadership careers in national security. Reference Job Opening [658086](#). Also, check out regular positions, internships, and post doc jobs [here](#).

§

Bulldog Tutors Tutoring opportunities are available with Bulldog Tutors, located at 142 Temple St. Positions are available to tutor every subject and standardized test. Pay rates start at \$30/hour. If interested, contact [Jas Jernail](#).

§

Perimeter Institute for Theoretical Physics is inviting applications for Postdoctoral Research positions. For more information please visit our [website](#).

Perimeter Institute offers a dynamic, multi-disciplinary environment with maximum research freedom and opportunity to collaborate. We welcome all candidates to apply by **November 15th, 2017** but applications will be considered until all positions are filled.

§

Barclays Quantitative Analytics team offers a number of 2018 summer internship positions. Please see the PDF file ([click here](#)) for a detailed description of our internship program. The application deadline is Nov 8th, 2017, and to be eligible for our 2018 summer internship, students must be able to finish his/her MS or Ph.D. degree before the summer of 2019.

§

Insight Data Systems – The Insight Data Fellows Programs are tuition-free fellowships for graduating students, PhDs and postdocs looking to transition to careers in data science, data engineering and artificial intelligence. Over the past 5 years, we have helped over 900 Insight Fellows become data scientists and engineers at over 250 leading data-driven companies.

Insight Data Fellows Programs

Insight is now accepting applications for the January 2018 fellowships in Data Science, Health Data Science, Data Engineering, and Artificial Intelligence.

900+ Insight alumni are now data scientists and data engineers at Facebook, LinkedIn, The New York Times, Apple, Airbnb, Netflix, Memorial Sloan Kettering Cancer Center, Github, Slack, Seven Bridges Genomics, Twitter, Bloomberg, NBC, Pinterest, Microsoft, and 250+ other top companies.

Insight Fellows Programs:

- 7 week, full-time training fellowship
- Mentorship from leading industry data scientists, data engineers & AI specialists
- Join an active community of Insight alumni
- Self-directed, project-based learning followed by interviews at top companies
- Tuition-free with need-based scholarships available to help cover living costs

Application Deadline: **October 23rd**

Insight awards four distinct Fellowships - learn more & apply:

Data Science

- For PhDs & Postdocs (graduating by May 2018)
- Locations: Silicon Valley, NYC, Boston, Seattle & Remote
- Apply: <http://insightdatascience.com>

Health Data Science

- For PhDs, Postdocs & MDs (graduating by May 2018)
- Locations: Silicon Valley & Boston
- Apply: <http://insighthealthdata.com>

Data Engineering

- For Bachelors, Masters or PhDs (graduating by May 2018) & professional engineers
- Locations: Silicon Valley & NYC
- Apply: <http://insightdataengineering.com>

Artificial Intelligence

- For Bachelors, Masters or PhDs (graduating by May 2018) & professional engineers
- Locations: Silicon Valley & NYC
- Apply: <http://insightdata.ai>

Not ready to apply? Sign up for our notification list:

<http://insightdatascience.com/notify>

Questions? Email us at

info@insightdatascience.com