Second Election on Unionization Scheduled for April

A second election on unionization will be held April 18 and 19, 2018. Students determined to be members of the bargaining unit will receive e-mails from the University confirming they are on the voter list and, closer to the election, their assigned voting location.

In 2016, students took it upon themselves to examine what unionization would mean for them, their fellow students, and those who come to Harvard after them. This was evident in the high voter turnout. As we move forward with a second election, it is critically important to consider again the issues at stake and engage in a robust conversation about the potential impact of unionization.

Information is available on the Student Vote section of the Office of the Provost’s website at provost.harvard.edu/studentvote. A number of student-driven websites provide information on both sides of this issue, including the Harvard Graduate Students Union–United Auto Workers website harvardgradunion.org and associated Facebook page: Graduate Student Unionization: A Critical Approach at criticalgsu.wordpress.com; and the Against HGSU-UAW Facebook page.

If you are identified as being eligible to vote, it is critical that you engage with the issue and vote. Learn more at provost.harvard.edu/studentvote.

Starting a Technology Revolution

Christie Chiu explores fundamental questions concerning high-temperature superconductors

By Fernanda Ferreira

In a small room on the first floor of Lyman Labs are two rectangular tables covered in mirrors, amplifiers, fibers, and lenses. “Organized chaos would be a good description,” says Christie Chiu, a PhD candidate in physics. All the bits and pieces serve a single purpose: to manipulate and control laser beams strong enough to load and hold anywhere from 80 to 1,000 lithium atoms in a 2-dimensional lattice that is hidden away in a vacuum-chamber made of stainless steel and glass.

On a computer, Chiu pulls up a photograph of the lithium atoms held in the lattices, and one can easily see the mesh of atoms. “The fact that we can see the underlying lattice in this photograph without any image processing is already amazing,” says Chiu. Generating such a clear image was a challenging yet necessary step in Chiu’s research. “It means we know where the atoms are, and we can make reliable measurements,” she explains. As stunning as the lattice is, the properties of high-temperature superconductors that it will allow Chiu to explore are even cooler.

No Resistance

Imagine a world in which laptop computers don’t heat up and cell phone batteries last forever. It sounds like science fiction, but for physicists who study superconductors, it feels like an attainable reality. Superconductors are materials that can conduct electricity with zero resistance, which means zero heating and zero wear-and-tear. Unfortunately, their superconducting ability only occurs at very low temperatures: around 4 kelvins or minus 450°F. Thirty years ago physicists discovered high-temperature superconductors, but despite their name, they still need to be chilled to 130 kelvins or minus 225°F to be superconducting. “If we could bring that temperature all the way up to room temperature, that would be amazing,” Chiu says. “Technology as we know it would be revolutionized.”

Before we can envision the development of room temperature superconductors, physicists must first understand the physical properties that allow...
NOTES FROM THE DUDLEY UNDERGROUND

Imposter Syndrome

BY JACKIE YUN, ROOM B-2 IN DUDLEY HOUSE — COME VISIT!

The “impostor phenomenon” (aka “impostor syndrome”) was first described by American clinical psychologists Pauline Clance and Suzanne Imes in 1978 as an “internal experience of intellectual phoniness” experienced by those with “outstanding academic and professional achievements.”¹

Despite their numerous achievements and accolades, people experiencing the impostor phenomenon maintain a “strong belief that they are not intelligent; in fact, they are convinced that they have fooled anyone who thinks otherwise.” Those with impostor phenomenon discount their own efforts and talents when explaining their successes, instead citing situational factors like luck, timing, or inadvertently fooling others about their intelligence.

Clance and Imes first used the term to describe the highly successful Caucasian women they encountered in their clinical practice in the United States. In the 40 years since, scientists have studied a much more diverse sample, including men and individuals from varying ethnic and cultural backgrounds. Sometimes called “impostor syndrome,” the impostor experience is not considered a psychological disorder, so experts tend to prefer the term “impostor phenomenon.”²

In the Office of Student Services, we talk about “impostor” experiences a lot. Given that the “impostor phenomenon” is especially likely during periods of life transition, it is not surprising that many, many graduate students come to the office to talk about how they feel like frauds or assume that they are underprepared compared to their classmates. These thoughts can be overwhelming, and it can be comforting to know that many students feel the same way.

Here are some strategies to help navigate impostor feelings:

1. **YOU earned your spot here.** There are no admissions mistakes. You were selected because people thought you could do good work and contribute to your field’s knowledge.

2. **Try not to compare yourself to others.** All GSAS students have different backgrounds, experiences, and talents. If you were all the same, this place would be boring! Try to remember the unique and special contributions that you make to your field and this community.

3. **Talk to mentors and trusted resources.** Sometimes just talking out loud about impostor feelings can help you realize how these feelings might be holding you back.

4. **Don’t hold yourself back!** These feelings can be intense, and they can make us lose our voice. Don’t hold yourself back from participating in class, asking questions, or having conversations with professors. There is no such thing as a dumb question; we are all learning here together.

5. **Don’t beat yourself up!** We are our own harshest critics. It is so important to be kind to yourself. Mistakes happen. Say daily affirmations, reward yourself, and remember that no one is perfect.

You are always welcome to come by the Office of Student Services to talk about these feelings.

Another excellent resource for addressing feelings of being an “impostor” is Harvard’s Bureau of Study Counsel (BSC) at 5 Linden Street. To schedule an appointment with one of the BSC counselors, please call 617-495-2581 or e-mail bsc@harvard.edu.

“My conversations with the other Horizons scholars as well as with my faculty fellows have helped me distill my story into the core message I want to communicate.”

A Sea of Analogies

Often when explaining her research, Chiu uses the classic analogy of an airplane wing in a wind tunnel. “Let’s say you want to build a very efficient airplane,” she begins. “You could build one airplane prototype and try to fly it. If that doesn’t work you try a second prototype and then a third until you succeed.”

This approach however is costly and ineffective.

“But instead, you start with a model wing in an air tunnel and see how the air flows around it, what the underlying physics is. You then use that knowledge to engineer a wing that works,” Chiu explains. “We’re trying to do something similar with our atoms.”

Instead of engineering a number of new materials that may or may not be superconducting, the atoms in a lattice will allow Chiu to understand high-temperature superconductors and, eventually, engineer a material that is superconducting at room temperature.

For Chiu, analogies like the airplane wing are essential when explaining physics. “Without analogies, we would be lost,” she laughs. In talking about her experiment, Chiu has compared the two-dimensional lattice to an egg carton and likened taking an image of the lithium atoms to trying to photograph a hyper- active child. “Our entire experiment is an analog,” she points out.

Chiu used the airplane wing analogy in her application to Harvard Horizons, a program that recognizes GSAS PhD candidates doing incredible work at Harvard. Each year, eight students are selected and, under the mentorship of faculty fellows and the Derek Bok Center for Teaching and Learning, craft five-minute TED-style talks that they present at the Harvard Horizons Symposium, which this year will be held on April 11, 2018, at 4:30 p.m. in Sanders Theatre.

As part of the application to Harvard Horizons, applicants must submit a video in which they condense years of research into a one-minute pitch. While making her pitch, Chiu turned to her advisor Markus Greiner, professor of physics, lab mates, friends, and her family for feedback. “I basically practiced in front of anyone who would listen, even my pet bunny,” she confesses. “I knew I was on the right track when my dad said ‘Oh, now I understand what you’re doing!’ ”

Chiu was right, and last December she was named a 2018 Harvard Horizons Scholar, joining a diverse group of PhD candidates who study everything from urban planning to psychology. Between now and April, Chiu and her fellow Horizons scholars will meet at least once a week to refine their presentation skills and practice their talks. For Chiu, having this diverse sounding board has already proved useful. “My conversations with the other Horizons scholars as well as with the faculty fellows have helped me distill my story into the core message I want to communicate,” she says. “As for what that core message is, you’ll have to go to the symposium!”

When asked whether any analogies will make it into her talk, Chiu gives an emphatic yes. “With only five minutes, the key will be relying on every individual’s prior knowledge and experience to communicate the complex ideas of my lab work,” explains Chiu. And for Chiu, analogies have the power to do just that: “They allow you to meet people where they are and build a bridge to the new material and the ideas you want to share with them.”
Wild Diagnosis: Human Health and the Animal Kingdom
Monday, March 5, 2018, 6:00 p.m., Geological Lecture Hall, 24 Oxford Street

Barbara Natterson-Horowitz, Professor of Medicine, Division of Cardiology, and Co-Director, Evolutionary Medicine Program, UCLA; Visiting Professor, Department of Human and Evolutionary Biology, Harvard University

Sudden cardiac death in kangaroos. Breast cancer in jaguars. Compulsive disorder in polar bears. All animals, including humans, are subject to a wide range of physical and psychological illnesses. Using pathological specimens from Harvard’s Museum of Comparative Zoology, Barbara Natterson-Horowitz will discuss disorders in both living and extinct species. She will also examine the importance of comparative and evolutionary perspectives in deepening scientific understanding of disease and increasing our compassion toward affected patients—both human and non-human animals.

Free and open to the public with free event parking at 52 Oxford Street Garage. Presented by Peabody Museum of Archaeology & Ethnology and Harvard Museum of Natural History

Obesity: It’s More Complex than You Think
March 27, 2018, 5:00 p.m., Sheerr Room, 10 Garden Street, Cambridge

Fatima Cody Stanford, a leading expert on obesity, will challenge the notion that weight regulation can be determined by a simple equation applied to all persons equally. Instead, she will explore the impact of the environment and the role our brains and bodies play in the complex processes of weight regulation. Stanford will also explore how weight stigma and bias in society lead to negative health outcomes.

Register online at radcliffe.harvard.edu/event/2018-fatima-cody-stanford-lecture

The Sleep-Deprived Human Brain
March 29, 2018, 4:15 p.m., Knafel Center, 10 Garden Street, Cambridge

Nora D. Volkow, director of the National Institute on Drug Abuse at the National Institute of Health, will examine the results from two sets of brain-imaging studies done to investigate the effects of sleep deprivation on the human brain. These studies suggest a complex picture in which the sleep-deprived human brain may tell us much about addiction and other diseases.

Register online at radcliffe.harvard.edu/event/2018-nora-d-volkow-lecture

Bouchra Khalili, RI ’18, is a Moroccan-French visual artist who works in film, video, installation, photography, and prints to investigate discourses of resistance as elaborated, developed, and narrated by individuals—often members of political minorities. This exhibition features a selection of elements from Khalili’s work, Foreign Office, which focuses on a time when Algiers became a “mecca of revolutionaries” and hosted representatives of liberation movements from Africa, Asia, and the Americas. This exhibition’s combination of artistic elements suggests an alternative historiography of utopian movements, which invites reflection on resistance for the present and the future.

Selections from Foreign Office
March 19, 2018, through April 21, 2018, noon to 5:00 p.m., Monday through Saturday, Johnson-Kulukundis Family Gallery, Byerly Hall, 8 Garden Street, Cambridge

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GSAS BULLETIN | MARCH 2018
Don’t Miss!
OUR DUDLEY HOUSE PICKS OF THE MONTH. FOR MORE EVENTS, OUTINGS, AND GATHERINGS, GO TO DUDLEY.HARVARD.EDU/CALENDAR.

Senior Common Room Dinner
Monday, March 5, 2018, 5:30 p.m. reception in the Dudley House Graduate Student Lounge, 6:00 p.m. dinner in the Common Room. Microphonics with Carolyn Abbate, Paul and Catherine Buttenwieser University Professor. Free tickets available from the Dudley House third-floor office.
◆ For more information, contact the Dudley intellectual/cultural fellows at dudley.intellectual@gmail.com.

“A Writer without a Story:” A Talk about Fiction Writing, Publishing, and Identity with Stephen Michell
Friday, March 9, 2018, 3:00 p.m., Dudley House Fireside Room. Please join the Dudley Literary Fellows for a reading and talk with Anglo-Canadian fiction writer, Stephen Michell, author of the horror novel, Only the Devil Is Here. The discussion will explore what it means to be a novelist within the current state of the publishing industry, the appeal of genre fiction over traditional literature, and the importance of identity—personal versus national—for anyone who creates, performs, and shares work on the global stage. ◆ Light refreshments and copies of the novel will be available.

Habitat for Humanity Build
Saturday, March 24, 2018. Join the Dudley Public Service team in building a house! Habitat for Humanity is dedicated to providing decent, affordable homes for those in need. We need 12 enthusiastic volunteers who can donate their time to various projects during the build. ◆ To sign up contact dudleypublicservice@gmail.com before March 10.

Save the date for the Harvard Horizons Symposium on April 11, 2018, at 4:30 p.m. in Sanders Theatre.

Save the Date: Dudley House End-of-Year Boat Bash!
Saturday, April 28, 2018, boarding starts at 6:15 p.m., boat departs at 7:00 p.m.
Celebrate the end of term with the annual Boat Bash! We look forward to welcoming you on board the Provincetown II party boat, where bartenders will provide food and a wide range of drinks for purchase, and DJs will play on two decks. Dance the night away as we cruise across Boston Harbor toward a spectacular sunset.
◆ Location and ticket information will be announced at a later date through the GSAS Bulletin and on the Dudley House website. Dudley House members, students at Harvard’s graduate and professional schools, and their guests are welcome. Proper 21+ ID required to board the boat. Cash required for food and drinks.

Dudley House Your Graduate Student Center since 1991
Lehman Hall, Harvard Yard + www.dudley.harvard.edu + 617-495-2255
Faculty Deans James M. Hogle and Doreen M. Hogle + House Administrator Susan Zawalich
Developing Faculty Mentor Relationships: Opportunities Hidden in Plain Sight

By Cynthia Verba, Director of the Fellowships Office

A mentor relationship can be defined as going beyond just narrow academic advising; typically the mentor takes the whole person into account, conveying a sense of support and encouragement, perhaps guiding the student through the various stages of professional development. To reach that level you will need to follow up and sustain the dialogue, which tends to be easier once you have broken the ice with the initial encounter. If you pursue some initial suggestions, you can report on how things are going; gradually you can share other pertinent factors about your life and how you arrived at your interests and goals, perhaps asking to hear more about the faculty member’s own career trajectory. In sustaining the dialogue, you could take advantage of a faculty member’s office hours (according to reports, you will probably not encounter a long line), or you may make an appointment.

Faculty members may not go out of their way to actively seek such a relationship, but we have frequently heard reports that they are pleased when students do reach out to them. With luck, you may find that you have developed multiple mentors, each with differing skill sets, interests, and personal backgrounds that they are happy to share.

Students are hesitant, perhaps wary of demanding too much from busy faculty. Your best bet in developing faculty mentor relationships is to let it happen naturally, but with a special meaning of “naturally.” You begin by taking inventory of all those occasions where you might have one-on-one contact with particular faculty members whose research relates to your own interests. You will find that there are many such occasions that happen naturally, as you go about your normal everyday affairs as a graduate student:

1. discussion of a potential topic for a seminar paper, or a discussion of potential sources for researching the topic;
2. participating in research workshops where students and faculty participate, or any department activities where students and faculty come together;
3. acquiring letters of recommendation for fellowships, which almost automatically entail a discussion of your research and your qualifications to do so;
4. inquiring on serving as a research assistant on a faculty project (students in the non-science fields would first have to identify faculty members whose research relates to your own interests. You will find that there are many such occasions that happen naturally, as you go about your normal everyday affairs as a graduate student).

We recommend that you take notes and use your calendar to keep track of opportunities. You are more likely to reach out to faculty members when you have some initial suggestions, you can report on how things are going; gradually you can share other pertinent factors about your life and how you arrived at your interests and goals, perhaps asking to hear more about the faculty member’s own career trajectory. In sustaining the dialogue, you could take advantage of a faculty member’s office hours (according to reports, you will probably not encounter a long line), or you may make an appointment.

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Upcoming Events at the Office of Career Services

The Office of Career Services (OCS) provides a wide range of services and resources tailored specifically to the needs of master’s and PhD students. Advisors work confidentially with GSAS students on a wide range of career-related issues, from broad self-assessment and decision-making to specific advice on resume, CV, and cover letter preparation for academic and nonacademic job searches. OCS also offers monthly events designed to help graduate students with their professional development.

All events are only open to GSAS students and alumni, except Making the Most of Your Postdoc on March 5. For each event, please review the attendance eligibility on the OCS calendar description.

Making the Most of Your Postdoc
Monday, March 5, 2018, 3:30 p.m. to 5:00 p.m., TMEC 209, Longwood Campus
Postdocs are faced with many obstacles in their pursuit of being an independent investigator, none more frustrating than getting the most out of their training. Jim Gould, director of the HMS/HSOM Office of Postdoctoral Fellows, will lay out strategies for choosing the right research environment to thrive as a postdoc as well as planning and executing a successful postdoc tenure. Designed for current and future postdocs, the session will cover what you need to know and do to efficiently advance in your early research career. GSAS students, please register through Crimson Careers. Postdocs, please register at postdoc.hms.harvard.edu/making-the-most-2018.

How Harvard Can Help You Land a Job
Tuesday, March 6, 2018, 4:00 p.m. to 5:00 p.m., OCS, 54 Dunster Street, Cambridge
Are you a PhD student graduating in May? Have you just realized you need a job in a few months? Don’t panic! OCS is here to help you whip your nonacademic job search into shape. Check out this workshop to learn about valuable resources and strategies to begin an effective nonacademic job search. We will cover topics such as the importance of networking, how alumni can help in your search, skills you have that employers may be looking for, crafting an effective resume, and more! Please register to attend.

Preparing for the Job Search: Resume and Cover Letters
Monday, March 19, 2018, 4:00 p.m. to 5:00 p.m., OCS, 54 Dunster Street, Cambridge
Are you a PhD student interested in nonacademic careers? Concerned about how to write an effective resume and cover letter? Join this workshop to learn tips on how to tighten and tailor your resume and cover letter to help you land an interview! Please register to attend.

Preparing for the Academic Job Market: CVs and Cover Letters
Thursday, March 22, 2018, 3:30 p.m. to 5:00 p.m., OCS, 54 Dunster Street, Cambridge
If you’re planning to go on the academic job market this fall, begin preparing your documents now! Your CV and cover letter are the first documents that academic search committees see. Come to this workshop to learn how to create a dynamic, graphically pleasing CV and craft a compelling, tailored cover letter that will help propel you to the next step in this challenging market. Please register to attend.

Polishing Your Professional Social Skills
Wednesday, March 28, 2018, 4:00 p.m. to 5:00 p.m., OCS, 54 Dunster Street, Cambridge
Are you unsure what to do during interviews and networking dinners? Do you often feel tongue-tied in these situations? People tend to equate a lack of etiquette and conversation skills with a lack of ability to be good at what you do. Join us for this workshop and learn tips on how to present yourself with the kind of polish that shows you can be taken seriously. Please register to attend.

Leveraging Your PhD: Why Employers Value Your Skills
Wednesday, March 14, 2018, 4:00 p.m. to 7:30 p.m., Dudley House Common Room
Explore career options beyond academia and learn how to leverage your PhD. Please register through Crimson Careers to attend. 4:00-5:00 p.m., Nuts and Bolts: Landing a Job in this Economy: Curious how recent PhD graduates found their jobs? Hear from recent GSAS graduates who have successfully landed a job. 5:00-6:30 p.m., Alumni Panel on Leveraging the PhD: Alumni will discuss their own career decision making, how they adapted to jobs outside academe, and how the skills and knowledge they developed during their graduate programs influenced their success. 6:30-7:30 p.m., Networking Reception: Speak with alumni and Harvard affiliates about their specific jobs and career paths. Please register to attend. This event is co-sponsored by the FAS Office of Career Services and the GSAS Office of Alumni Relations.

CONTACT
Office of Career Services
54 Dunster Street, Cambridge
Phone: 617-495-2695
ocs.fas.harvard.edu/gsas-advising

Laura Stark, Director of Career Advising and Programming for Master’s and PhD Students
lstark@fas.harvard.edu

Heather Law, Assistant Director, Graduate Student and PhD Advising
hlaw@fas.harvard.edu
Get Out
Explanations and adventures on and off campus

>> Celtic Sojourn

Join Boston’s public radio station WGBH for a Celtic Sojourn and celebrate St. Patrick’s Day! Performers include Open the Door for Three, Brenda Castles, Keith Murphy, Maeve Gilchrist, and more musicians and dancers. For full performer information, visit www.wgbh.org/celtic.

Two shows at 3:00 p.m. and 7:30 p.m., Saturday, March 17, 2018, at Sanders Theatre. Visit boxoffice.harvard.edu and search for Celtic Sojourn for more information and to purchase tickets.

Commencement
Schedule of Events

**IMPORTANT DEADLINES**
Last day to apply for the May 2018 degree: April 6, 2018
Order your tickets: April 1–20, 2018
Regalia orders (PhD candidates): April 20, 2018
Regalia orders (Master’s candidates): April 4, 2018
Pick up your tickets: May 18, 21–24, 2018

**EVENTS**
The Day Before
Wednesday, May 23, 2018
4:00 p.m. to 6:00 p.m.
Dudley House Faculty Deans’ Reception, Main Dining Room, Dudley House

On the Day
Thursday, May 24, 2018
6:30 a.m. GSAS Breakfast with the Deans, Lawns at Richards Hall, 33–35 Oxford Street, for all degree candidates and their guests.
7:15 a.m. GSAS Procession begins from 35 Oxford Street to Sever Quadrangle.
9:45 a.m. Morning Exercises begin in Harvard Yard.
11:30 a.m. The GSAS Diploma Awarding Ceremony in Sanders Theatre begins immediately following the Morning Exercises.
12 Noon champagne reception and luncheon begins on the Lawns at Richards Hall, 33–35 Oxford Street, and continues until approximately 3:00 p.m. for all degree recipients and their guests.
2:15 p.m. Afternoon Exercises begin in Harvard Yard.

Speak at Morning Exercises
The Commencement Oration Competition gives students the chance to speak at Commencement. To be chosen as one of the three orators is considered to be among the highest honors a student can achieve. Winners also receive a $1,000 prize.

 Learn more at the Orators’ Workshop:
Wednesday, March 7, 2018, at 4:00 p.m., Sever Room 113

 Deadline to submit electronic submissions:
Thursday, March 29, 2018, at 4:00 p.m.

 Preliminary Auditions:
Tuesday, April 17, 2018, at 4:00 p.m., Emerson Hall, Room 105

 Final Auditions:
Tuesday, April 24, 2018, at 4:00 p.m., Emerson Hall, Room 105

Visit commencement.harvard.edu/orations-competition for more information.

More information at gsas.harvard.edu/commencement