Theoretical Physicist Wins Feynman Teaching Prize

Professor Steven Frautschi is this year’s awardee for the Feynman Prize for Excellence in Teaching.

CYNTHIA ELLER
Caltech Science Writer

Steven C. Frautschi, professor of theoretical physics, emeritus, at Caltech, has been awarded the Richard P. Feynman Prize for Excellence in Teaching, which is Caltech’s most prestigious teaching honor.

Named after Caltech physicist Richard P. Feynman, the prize is awarded annually to a Caltech professor “who demonstrates, in the broadest sense, unusual ability, creativity, and innovation in undergraduate and graduate classroom or laboratory teaching.”

This is the first time the Feynman Prize has been awarded to an emeritus faculty member and also the first time it has been awarded to a teaching assistant. Frautschi has won three ASCIT (Associated Students of the California Institute of Technology) teaching awards during his time at Caltech. Since his retirement from full-time teaching in 2006, Frautschi has continued on at Caltech as a teaching assistant for the freshman Physics 1 class in classical mechanics and electromagnetism. As Frautschi explains, “There is a long tradition of having at least some of the sections in freshman physics taught by Caltech professors. I’ve just stepped into that tradition. I love the material in basic physics and how it affects so many things in the world around us, and I like the continued contact with young people very much.”

Caltech students are as enthusiastic about Professor Frautschi as he is about teaching. Frautschi is credited by several students with pulling them through physics when they thought they would fail. Students describe Frautschi as “amazing,” “awesome,” and “beyond helpful.” They enjoy his “use of uncommon real-world examples” along with his “awesome Converse shoes,” and they say “learning from him is a blast.” Others go even further.

A biology major confesses, “I used to absolutely hate physics because I thought it was too difficult and useless, but Frautschi really clarified my understanding and sparked my interest in physics.”

Now, says this student, “I wouldn’t be opposed to being a physics major solely because of him.”

Another student says simply, “I want to be like Professor Frautschi when I grow up.”

“Those are big shoes to fill. Frautschi, raised in Wisconsin, matriculated at Harvard when he was only 16 years old. ‘I had a wonderful time at Harvard,’ says Frautschi. ‘To me it was like a large cookie jar full of wonderful goodies to dip into.’ He studied physics and math there but has fond memories of auditing classes in art history and geology as well. After college, Frautschi won a Harvard fellowship to spend a year traveling through the Near East and Europe, where he enjoyed “a great many operas among other things.”

Graduate school followed at Stanford University, where Frautschi concluded that theory, rather than experiment, would be his forte in physics. After Stanford, Frautschi pursued postdoctoral fellowships at the Hideki Yukawa Institute for Theoretical Physics in Kyoto and at UC Berkeley.

Frautschi’s eventual move to Caltech was initiated when Gell-Mann was active, and also, so coming to Caltech was a very attractive opportunity,” says Frautschi. Frautschi actually knew the prize’s namesake personally and had the opportunity to watch him teach.

Continued on pg. 3
Food with Mannion!

Do you like eating food?
How about free food at nice restaurants?
Ever want to tell the world exactly what you think of said food?
The Tech will be beginning a new column to chronicle the foodie experiences of new writers every other week... The Catch: They’ll be going head-to-head with Tom Mannion who will be reviewing the same restaurant. If you have ever thought you were more of a gourmand than our resident master chef, now’s your chance to prove it!

Email us for a spot on the list at tech@caltech.edu

ASCIT Minutes

ASCIT Board of Directors Meeting
Minutes for February 18, 2014. Taken by Catherine Jamshidi

Officers Present: Connor Coley, Catherine Jamshidi, Connie Hsu, Michelle Tang, Zach Rivkin, Monica Enlow, Malvika Verma

Guests: Connor Rosen, Patrick Nkong, Ellora Sarkar, Elliot Simon, Chris Dosen

Call to Order: 10:05 pm

President’s Report (Zach):
- There will be afternoon tea at 3pm on Sunday, March 2nd to meet the current Board of Directors at Tom Mannion’s house. Prospective ASCIT candidates should attend to learn more about the various positions.

Officer’s Reports:
- V.P. of Academic Affairs (ARC Chair: Malvika):
  - The Collaboration Policy Checklist was distributed through Division Chairs. No word yet on how it’s been received.
  - The recommendations ARC + UASH made with regard to the academic eligibility proposal will be used to revise Dean Kiewiet’s proposal.
  - The ARC is working to change due times for core classes to reduce the pressure to pull all-nighters (for example, Ma1a due Monday at 10am encourages Sunday all-nighters)
  - The first Dinner with a Prof will be Feb. 27th with Professor Alan Weinstein. Students are encouraged to sign up for the lottery spots.

- V.P. of Non-Academic Affairs (IHC Chair: Connor):
  - The Bechtel memo, which had been sent to President-elect Rosenbaum, was also sent to a trustee on the Student Experience Committee
  - Zach and I are working on a fire safety/education program in conjunction with Safety. Details TBD.
  - Congratulations to Erin Evans, our newest IHC member!

- Director of Operations (Connie):
  - Join the Little t team! If you’re interested in contributing to next year’s Little t, we would love for you to join us. Email operations@donut.caltech.edu
  - Nothing to report this week.

- Social Director (Michelle):
  - If you want to join the Executive Social Committee, please contact Michelle Tang at mtang@caltech.edu.
  - There is a movie screening of Josh, directed by a Caltech alum, on Friday, 2/28, at 7:30pm in Baxter.
  - Be a Kid Again will take place on Sunday, 3/2, at 7pm at Tom Mannion’s house.
  - Dabney and Ruddock Interhouses are in the upcoming weekends.
  - A formal will likely take place third term.

- Treasurer (Monica):
  - Nothing to report this week.

- Secretary (Cat):
  - Nothing to report this week.

- Staff
  - Brad Chattergoon
  - Nailen Matschke
  - Parul Pubbi

- News Editors
  - Neha Shah

- Photography Editor
  - Alex Hsu

- Circulation Manager
  - Michael Pauzechak

- Advisor
  - Richard Kipling

The Tech is published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the individual author. Letters and submissions are welcome; e-mail submissions to tech@caltech.edu in plain-text attachments, including the author’s name, by Friday of the week before publication. The Tech does accept anonymous contributions under special circumstances. All advertising e-mail: advertising@donut.caltech.edu. The Tech reserves the right to edit and abridge all submissions for any reason. All written work remains property of its author. The advertising deadline is 5 PM Friday; all advertising should be submitted electronically at a camera-ready art, but the Tech reserves the right to reject any advertising at the discretion of the Advertising Manager. All advertising inquiries should be directed to the business manager at business@caltech.edu. For subscription information, please send mail to "subscriptions."
CYNTHIA ELLER
Caltech Science Writer

Continued from pg. 1

Frautschi remembers attending a graduate course Feynman taught on the quantum theory of gravity during the 1960s; he also remembers Feynman’s “famous sessions with the undergrads, where he would entertain any question whatsoever. This was utterly remarkable to me. I’ve never heard of another professor who did that during the 1960s,” he says. “It made such an impression on me.”

Frautschi’s reputation as a teacher is equally well deserved. In addition to his current work as a teaching assistant, his regular teaching commitments over the years, Frautschi participated in Caltech’s 52-episode television series The Mechanical Universe, which was first broadcast during his tenure as Master of Student Houses from 1997 to 2002.

With a boost from Beverly Sills in New York, it had become standard practice to put supertitles above the stage during the opera so that you could actually follow what’s going on, line by line. I thought we’d get just a few students the first time I set up a trip to the opera,” says Frautschi, “but we’ve had 600+ at times.” Since the construction of Walt Disney Concert Hall, Frautschi takes it upon himself to regularly escort Caltech students to see operas.

Frautschi and his wife, Mie, are both music lovers, and they raised two daughters who became professional violinists. They purchased a condo in Aspen, Colorado, at first to be near the Aspen Center for Environmental Studies and later for their daughters to be near the Aspen Music Festival. They have donated their condo to Caltech to fund research space for Caltech’s band and orchestra on the second floor of the Willett Center as part of the larger innovation project for this building.

As the official citation for the Feynman Prize states, “anyone familiar with Steven knows his recent work in Physics 1 is just the latest stage in what has been a long history of ‘passion for teaching and service to student life.” He set these priorities long ago and has maintained a level of focus and energy that is astonishing.”

The Feynman Prize has been endowed through the generosity of Ione and Robert E. Paradise and an anonymous local couple. Some of the most recent winners include Paul Asimow, professor of geology and geochemistry; Morgan Kouser, the William R. Kenan, Jr., Professor of History and Social Science; and Dennis Dougherty, the George Grant Hoag Professor of Chemistry. Nominations for next year’s Feynman Prize for Excellence in Teaching will be solicited in the fall. Further information about the prize can be found on the Provost’s Office website.

- See more at: http://www.caltech.edu/content/theoretical-physicists-wins-eybeyman-prize-excellence-teaching?shortURL=NXA851Jdpf

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Hi everyone! This is the Caltech Y Column, designed to inform you about the Y and the opportunities we provide for you to inspire your passions, whether by participating in our programs or leading your own.

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Professor Frautschi awarded Feynman Prize
The IHC Chair is one of the most important undergraduate representatives on campus, ambassador of the houses to the wider Caltech community, especially the administration. The chair must temper his/her desire to help and protect undergraduate student life with the recognition that compromises are necessary to get anything done. I would love the opportunity to bring your voice to the Deans’ Table and beyond.

What exactly does the IHC Chair do besides making sure no one breaks Rotation rules? The largest single problem during Rotation, from planning dinner and lunch schedules to the actual sorting process. Rotation is the worst method of sorting frosh – the most inefficient and unhappiest way. To that end, as IHC Chair, I want to make sure that Rotation runs as well as it did this past year. Rotation from the beginning to the actual sorting process. Rotation shouldn’t be an all-night chore.

Another responsibility of the IHC Chair is communicating between non-academic administrators (such as Housing, Dining, and the Undergraduate Deans’ Office) and students. From a student’s life perspective, this is the most important job as it most directly affects our quality of life. Here the IHC Chair plays an especially delicate role. She/he must negotiate, carefully and holistically, with administrators over changes to the resident policy, working tirelessly to protect the students’ interests while avoiding antagonizing the administrators so that changes will not be too painful. Here, I think I can make the most difference as I have worked with administrators in the Athletics Office to the Development Office to acquire funds for the necessary equipment for the Caltech Robotics Team. I want to work with the administration to make sure that my course caseload is the best it can possibly be.

The IHC deals with all aspects of student life at Caltech. First and foremost among these is Rotation, followed by those issues particularly affecting housing, dining, recreation, and campus-wide issues regarding the House system. However, the IHC Chair also handles responsibilities related to the Honor Code, student life, and all roles of student government through their seat on the ASCIT Board of Control. I am on the IHC for the past year, I know the responsibilities and duties of the IHC Chair and I am confident that I can meet any challenges that arise.

I know the importance of the House system, and the role of the IHC Chair. I was on the IHC for the past two years, however I was not involved over Ricketts’ Rotation this past year – so I have seen many issues come up and be resolved. The previous IHC began discussing case situations to the Rotation Rules, and the new IHC is continuing these discussions and implementing changes. I do believe in the importance of Rotation and allowing prefrosh the opportunity to form their own opinions of the Houses – however, ambiguity in the rules makes it difficult for current students to answer questions and give prefrosh the information they need to make an informed, unbiased decision. I believe students should be able to speak about what makes their own House the right place for them – and the Rotation Rules and our understanding of them should reflect that. I will continue to work with the new IHC to ensure that all students understand the rules and can help the prefrosh make the best possible decisions before and during Rotation.

The previous IHC also has been working on a number of housing policies over the past year – the removal of the five-dollar-per-day storage fee over the summer is one particularly recent example, although I can’t claim credit for that decision. Nonetheless, I’ve been involved in the discussions and worked productively with many of the administrative decision makers (Annella Sargent, Paul Asimow, Peter Daily) on other issues.

I will continue to work positively with Housing, Dining, and the rest of the administration to ensure that student concerns are conveyed and taken into account before decisions affecting students are made.

What exactly would I want to accomplish? I have thought a lot about what I can accomplish? My overarching goals to maintain the spirit of self-governance and personal responsibility at Caltech. The biggest factor that makes the Caltech undergraduate experience unique is, through the numerous committees, house leadership, and ASCIT, the ability to change Caltech to make it suit our needs. I believe that these qualities are worth protecting, and as such, I would like to continue my involvement in the BoC to the opportunity to serve as IHC Chair.

What would I want to accomplish? My overarching goals to maintain the spirit of self-governance and personal responsibility at Caltech. The biggest factor that makes the Caltech undergraduate experience unique is, through the numerous committees, house leadership, and ASCIT, the ability to change Caltech to make it suit our needs. I believe that these qualities are worth protecting, and as such, I would like to continue my involvement in the BoC to the opportunity to serve as IHC Chair.

Additionally, I am one of nine students on the Undergraduate Honor Code Committee, which is tasked with gathering and presenting student opinions on the academic aspects of the Honor Code.

In both of these positions, I strive to protect student interests while maintaining the freedoms that the Honor Code affords us all. I look forward to serving the Caltech community as the Board of Control Chair for the next year. Please feel free to contact me at ahart@caltech.edu or find me in person if you have any questions about my candidacy or if you have general comments about the Honor Code itself.
Board of Control Secretary (3 candidates)

PAUL DIETERLE
BoC Secretary Candidate

Caltech Students,

I am running for Board of Control Secretary, and would appreciate your vote. In my time as an Avery House Representative, I have learned a lot about student life at Caltech, and how the Honor Code functions. I have regular conversations with members of my house who seek clarification regarding the Honor Code and plan on making myself available at all times to all of campus via email (pauldieterle@gmail.com) and in-person appointments (TBA by email).

My experience on the Board is not limited to sitting cases as a rep. I have served as acting secretary for multiple cases and understand the workload therein. As secretary, I would accept this workload. I would work to ensure the student body understands collaboration policies, has an open communication line with the Board, and is generally in compliance with the Honor Code. I have a great rapport with the deans, which allows for a steady communication line between students and the administration.

In my time at Caltech, I have realized that most Honor Code violations have their origin in stress and course policy misunderstandings. I understand that students rarely act maliciously when they break the Honor Code, and I strive to convey this to the administration and faculty such that we can continue to enjoy the privileges afforded to us by the Institute. In principle, the Honor Code benefits the students, the faculty, and the administration. My goal as BoC Secretary is to ensure that all three parties are on the same page such that student interests and institutional integrity are protected.

Any comments or questions (in person or through email) about the Board, the Honor Code, or my candidacy are gratefully appreciated.

Sincerely,

Paul Dieterle

ELLY SHAO
BoC Secretary Candidate

Hello, I'm Elly Shao, and I'd like to be one of your secretaries of the Board of Control. The Honor Code is a unique feature of the Caltech community that grants us students a great deal of flexibility to make our own choices.

I like the freedom that comes with being trusted to do the right thing. Where else would I be trusted to do the right thing?

As a group, we will work with others in the board to ensure the student body to do the right thing and uphold the Honor Code. A system based on trust, easy to take advantage of, and the Board of Control exists to protect the community from these unfair advantages.

A great deal of faith is placed in the student body by letting us deal with our own Honor Code violations through the Board of Control. Every time someone abuses the Honor Code, some amount of trust in its efficacy is broken.

The BoC mitigates some damage from each violation by nullifying the unfair advantage gained and preventing future violations, but we can't completely unbreak trust. It is up to us as a community to demonstrate that we are trustworthy and that the Honor System works.

From my experiences as a representative on the Board over the past year, I believe I am qualified to serve as your BoC Secretary. I have reviewed many cases, and acted as secretary for a few. I appreciate how much work is required of a BoC secretary, and this is a manageable amount of time and effort that I am willing to make.

Sincerely,

Elly Shao

JIHOO LEE
BoC Secretary Candidate

Hello everyone,

Every day around Caltech, I see a concrete implementation of the Honor Code, carefully watched over by the BoC. As a student who greatly values the Honor

The California Tech Editors (2 candidate groups)

ALEX BALL
NEELAY FRUITWALA
CHRISS DOSEN
BIANCA RAY AVALANI
Tech Editors Candidates

In running for a position like Tech Editor, there are two mentalities that one can have: focus on the job at hand, or lay a foundation for days to come. We are Alex Ball, Neelay Fruitwala, Chris Dosen, and Biana Ray Avalani, and we are dedicated not only to improving the Tech, but also to making sure that we build a stable framework for the future. We believe that the best way to generate good content is to build a community that wants to produce it. We will actively solicit content and feedback. We plan to do this by creating feedback forms, holding weekly meetings outside of Chandler, and actively recruiting staff members, both permanent and ad hoc. We promise to put quality over quantity, we will not enlarge advertisements or quotes for the sole purpose of filling up a page. We will carefully review all aspects of the Tech to ensure journalistic excellence. We will present the Tech in a clearer layout, and we will incorporate any and all reader feedback in this process. We believe in reaching out to the community to keep Tchers informed about events both on and off campus. We will incorporate features, opinions, and interviews about subjects Techers care about. We plan to update the website to include puzzle answers, movie/book reviews, and an article submission form for those people who are not able to contact us directly. We believe that through these methods, and many more, we can make the Tech into a quality newspaper.

MONTICA ENLOW
ALEX HSU
LIZ LAWLER
NEERA SHAH
NEHALY SHAH
Tech Editors Candidates

Neera and Nehaly have 6 years of journalism experience as article writers, copy editors, layout editors, and business managers. Alex has both photography and layout experience since middle school and is a consistent contributor to The California Tech with articles and photos. The three of them have been working consistently on the paper for the past year and have the experience necessary to run the paper next year. Liz is proficient in HTML, and is a consistent contributor to the website, so that students can be well informed and have access to information about getting involved with new activities or pursuing new interests. We are committed to maintaining the professionalism of The California Tech and upholding the standards of a college newspaper.

We are all committed to improving The California Tech for the upcoming year. With the support of the staff we have maintained, we will be able to continue publishing weekly issues with content relevant to students in the third quarter, during the end of the year’s readership. We want to continue to encourage student involvement with the publication and are always open to student feedback and new contributions.

"The California Tech is down, and our goal is to redesign and launch the website. In addition to the website, we would like to start a Facebook page and potentially other social media accounts in order to engage the student body."

"We will be to improve the quality, we will also increase recurring features and different styles of articles. A major project for the upcoming year will be to increase the online presence of The Tech. Currently the website is down, and our goal is to redesign and launch the website. In addition to the website, we would like to start a Facebook page and potentially other social media accounts in order to engage the student body."
Answers to crossword puzzle from puzzlechoice.com

Counseling Center Announces Emotional Intelligence Workshop Series

The Caltech counseling center is proud to announce our fifth annual Emotional Intelligence Workshop Series. We’ve designed an exciting series of workshops to help you understand your emotional life better, to improve your relationships, and to help you make smarter choices. Here’s what’s in store:

- Tuesday, March 4th: Reading the Emotions of Others, presented by Maria Y. Oh, Ph.D., and Wendy Lopata, LCSW. This fun and exciting workshop will help you get even better at understanding how other people are probably feeling. We’ll use examples from real life and from videos to help you build some of these valuable skills. This workshop was originally scheduled for February 18th and has been rescheduled to March 4th.

All workshops are in the Winnett Lounge and run from 12:00 - 1:00. Free lunch is provided!
Beavers end swim season with SCIAC Championships

Patrick Eck swam a stellar race in a deep 200 freestyle field as he qualified for the consolation final on Saturday night. The sophomore’s time of 1:46.99 in the preliminary round during the morning, pushed him into Saturday night the swim.

In the freestyle distance races two significant personal best times were had. CJ Culpepper posted a time of 17:50.14 in the 1650 to lower his previous best mark by a minute. Alexandra Iliac recorded a time of 5:59 in the 500. It was the first time she has gone under six-minutes in the event.

The men’s 200 freestyle relay team of Eck, Leon Ding, Yu, and Chris Bradley came-up just 0.27 seconds short of breaking the 33-year old school record.

On the diving boards Ben Grabowski and Alex Place both advanced the final round of the three-meter diving competition where they placed seventh and ninth respectively. Grabowski also qualified for the final round in the one-meter where he recorded an eighth place finish.

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epmp.rice.edu

THE CALTECH COUNSELING CENTER IS LAUNCHING A NEW PROGRAM FOR STUDENTS:

There will now be evening drop-in hours for consultation on Monday and Wednesday evenings from 7-10pm. The slots will be divided in 30 minute segments and can either be signed up for in advance, or students can come and block off the time that they want by marking an “X” on the white board next to the time that works for them. They will be held on the 2nd floor of the CSS building in the health educator’s office. Access will be through the stairwell on the south side of the building.

Contact the Counseling Center if you have any questions.
(626) 395-8331

THE CALIFORNIA TECH
MARCH 3, 2014 7
LOST:

VIDEO CHIPS
(camera memory cards, about the size of a postage stamp)

Last seen at Caltech recycling center.

Many random videos and priceless family videos.

REWARD: $1000
(About the cost of the chips).

If you don’t have them but can help me track them down, $500.

If you erased them or trashed them, please let me know.

CONTACT:
Steve:  858-442-4729
smcgibbons@gmail.com

For more photos, videos, and archives of previous issues, check out the Tech website!

tech.caltech.edu