



## A chat with Prof of the Month Gil Refael

**SANDHYA CHANDRASEKARAN**  
News Editor Emeritus

**What courses do you teach? For how long have you been teaching them?**

The main classes I taught were Ph 127 - statistical mechanics and thermodynamics - which I taught for 4 consecutive years just as I arrived at Caltech in 2005, and Ph12b - intro to quantum mechanics, which I taught this year for the second time.

I have also developed a bit of an untraditional class - Ph50, aka, Caltech Physics League. This is essentially a 'physics club', where we meet weekly and discuss real-life physics problems and situations. There is no set curriculum, but so far our discussions covered the range of renewable energy, noise, plasma and fusion physics, all the way to flat tires. I've been leading this class for the last four years, and it has been a lot of fun.

**What major changes have you made to your course(s) over the years?**

The most major shift I made had to do with lecture notes. When I teach a class for the first time, I try to write down what I'm going to say. I do it in a rather clumsy way; it is almost my stream of physics consciousness - just as if I were speaking. I then look it over to eliminate embarrassments, and it becomes my personal textbook. At first, I only gave out summaries

to students, since my notes are so close to what is actually said in class. Over the years I decided to open up, and give my notes as is, essentially, to the students, as yet another source which they could use alongside a textbook and their own lecture notes.

This appeared to be a good move, but not without mixed reviews. Students often say they like the notes quite a bit.

On the other hand, I don't always manage to release a dignified version right after class, and some students became reliant on these notes. This is one cause for unhappiness.

On the other hand, I'm a terrible proofreader. My notes are informal, and also have typos. I always warn about this, but I guess once I put something out there I'm responsible for its quality.

So in my reviews there was some discontent about some missing constants, wrong signs, and the like. The intention is not to keep students on their toes - so next version will be a bit more typo free.

**How would you describe your teaching style?**

Informal, and also old-fashioned. I use a blackboard, and I tell silly jokes. I try to derive everything from scratch, and I want my students to be able to deploy what they learn easily, by having an intuitive understanding of how the theory, the math, and the logic all fit together.

At the same time, I'd like my students to make use of the new tools we have available, such as computer programming, and easily accessible information on the web. In



- ucsb.edu

Ph12b this meant mandatory use of Mathematica in the problem sets.

**How do you incentivize students to attend class and participate?**

I come from an academic culture where students are held to be responsible adults who can make their own mind. If they'd like to come to class great, if they don't, it might be harder for them to become proficient with the class material, but that's their decision to make.

On my end, I try to make lecture as coherent and engaging as possible. In addition, I take students' questions seriously, and answer them even at the cost of shifting the lecture's focus. Occasionally that leads to some boring tangents I inflict on my class, but most of the

time it helps to clarify topics that were not easily accessible the first time around. Students who are not attending cannot partake in this back and forth.

Also, the group that attends becomes more familiar with me and vice versa. This makes the class a much more pleasant experience for those who participate. At least that is my hope. I'm guessing some students may think that such a style is overbearing though.

**What has been your hardest challenge as a professor?**

Advising. Providing the intellectual and personal support to my close junior collaborators be it SURF's all the way to postdocs. This is a relationship which is at the core of our academic tradition,

and I believe that one should not underestimate the care that must be given by a mentor to a student, as the student takes their first steps as a scientist.

**How did you find your way to Caltech?**

Getting to Caltech was a fluke. Right after my graduation, Michael Cross appeared in my office at the KITP in Santa Barbara. I assumed he was looking for my office mate, Arun Paramekanti, who was interviewing for professorships that year (currently a Prof at UToronto). So I was quite surprised when he invited me to apply for a junior faculty job. I asked my two Ph.D. advisers, Daniel Fisher and Eugene Demler, what to do. Eugene thought I should apply in other places as well, but Daniel said that it is extremely unlikely for me to get a job so soon, so I should just go down there and have fun. I took it for granted that Fisher had the right idea (that was my experience as a grad student - he very rarely makes any mistakes), and only applied here. Somehow, they offered me the job! I was happy to quickly accept before they realized the error they made...

Caltech has been wonderful to me at all levels. In particular, I feel at home with the undergraduates. Many students remind me of the people I ran into when I competed in the International Physics Olympiad, and later trained the Israeli team - brilliant, and engaged, always keeping me on my toes, and ready to accomplish anything. This environment is very rewarding to me as faculty, and it helps define Caltech as a very unique place.

*Join Professor Refael on the Olive Walk this Thursday for a POM reception.*

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*Helping readers burst out of the Caltech bubble*

### Need to know

< **100** words about the world this week – topics sorted from good to bad

by *The Tech Eds*

#### Habitable planets?

**3** new planets share characteristics that make them Earth-like

[CNN]

#### Siblings reunited

**15** years after entering foster care, 3 siblings brought together

[TIME]

#### Gay marriage legalized

**13th** country to legalize, New Zealand is first in Oceania

[TIME]

#### No Miranda Rights

**19**-year-old Boston Marathon bombing suspect treated as terrorist

[FOX]

#### Girl raped

**5**-year-old in India hospitalized, sparks protest

[NYT]

#### Syrian troops seize town

**5** days of fighting and 80 deaths preclude takeover

[BBC]

#### High death toll in Nigeria

**185** civilians killed in fighting between military and Islamists

[BBC]

## 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](mailto:tech@caltech.edu)*

### The California Tech

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**get paid up to \$30**

## ASCIT Minutes

Minutes for April 15th, 2013. Taken by Allika Walvekar

Officers present: Diego Caporale, Pushpa Neppala, Mario Zubia, Michelle Tang, Allika Walvekar, Puikei Cheng, Connor Coley

Guests: Eugene Vinitsky, Connor Rosen, Zach Rivkin, Malvika Verma

Call to Order: 10:03pm

### President's Report (Diego):

Leadership Conference will be held on April 27th. The subject material will focus on issues that students care most about. The BoD will be working with Anneila to choose representatives for a student self-governance task force.

### Officer's Reports:

#### V.P. of Academic Affairs (ARC Chair: Pushpa):

The ARC is currently going through the nominations for ASCIT Teaching awards which will be held on Thursday May 23rd.

Professor of the Month: Gil Rafael

An SFL occurred on April 17th and it was very successful.

#### V.P. of Non-Academic Affairs (IHC Chair: Connor):

Prefrosh Weekend was this past weekend. If you believe a violation of PFW Rules may have occurred, please contact a member of the IHC.

Affiliated room picks are happening over the next few weeks for all the houses.

Applications for Skurves to live in Ricketts were due last Friday; decisions will be released on the 26th. Applications for non-Skurves are due on the 24th. If you would like to appeal the decision of eligibility, please contact [bweir@caltech.edu](mailto:bweir@caltech.edu) to set up a meeting with Dr. Anneila Sargent, Vice President for Student Affairs.

#### Director of Operations (Mario):

The Club Fair occurred on Friday 4-5:30. It was very successful and most registered clubs were in attendance.

Mario checked in on the Big T and they have been very diligent about taking pictures at all events.

#### Treasurer (Puikei):

Puikei is working on securing funding for the final costs of ASCIT Funding. The party went overbudget, so Puikei is contacting various resources for funding.

She would like to remind everyone that the Take A Professor to Lunch program is still active. Feel free to email her with questions and requests.

#### Social Director (Michelle):

ASCIT Formal: The formal went well but was over budget. 430 people attended, and the Observatory tours were very successful.

Upcoming Events: Blacker Interhouse (Week 6), ASCIT Movie Night (Week 7), Ruddock Frosh Party (Week 7), BFP (Week 8), Europarty (Week 9)

#### Secretary (Allika):

Working on a Mental Health UCC page on Donut.

If anyone has any questions or concerns about a section of the minutes please email the appropriate officer. We are happy to answer any questions.

Meeting Adjourned: 11:15

# Trends and fashion: As seen at ASCIT Formal

**NINA BUDAeva**

Staff Writer

The Saturday before last was a big night for Caltech undergraduates. It was our Tech version of High School Prom, also known as the

wide spectrum in the interpretation of formal male wear – just as wide as the ladies' spectrum. First of all, suits have different fits. They also have different colors and fabrics. They also have different trimmings, different cuts, different pocket

and white, but gave the classic look a twist with his signature scarf. He wore a strict black suit, a white pinstriped shirt, and a tie of dark gray and black diagonal stripes and the thinnest silver accents. He tied these pieces with a multi-

celebrities who can afford to wear whatever they want. Anyways, this is my own opinion, which may be subject to change, and some girls did manage to make the high-lows work.

Now there are several points to make clear. First,

in modern times, a formal event does not automatically mean that a female must wear a dress. Here's a shout-out to the girl who wore an awesome pants outfit! Also, not all fabrics and cuts are appropriate for evening formal wear. Cottons and linens should be saved for the daytime. Clubbing dresses (i.e. tight, revealing minidresses, excessive tacky detailing such as huge zippers) should be saved exactly for that clubs.

If the goal is to look good (which it hopefully is most of the time), then no one should wear something simply because it

is the latest fashion. Some things look better on some than on others. It is very important to have self-honesty and wear only what flatters you. Gowns look good on

some people, and just plain silly on others. The reverse may be true for short dresses and for pants.

Many girls put a lot of care into their hair and makeup, which was such a feast for sore eyes! It is insulting to a nice dress, to a nice date, and to a nice event when the wearer does not honor the fanciness with well-done hair and makeup. Hair that has had no treatment and is still drying from a shower should barely even show up in class!

In the end, though, what mattered most was the company and it was great. At the beginning of the night, before any of the festivities really kicked in, I would clearly see good looks and looks that could use some work. However, as the night progressed, events took precedence over facts and enjoyable company overpowered the arrangements of fabrics that people were wearing. It seems that most people had a wonderful night on the top of Mt. Wilson, and by the end of it, everyone looked beautiful.

Now of course, because most attendees enjoyed the night so thoroughly, there were spills and rips and stains to be discovered the next morning.

There is a great dry cleaner on the corner of Lake and California that also does alterations. For future reference, if anyone ever finds him or herself incapable of walking any further than the C-store, then the C-store also takes clothes, sends them to the dry cleaners, and notifies you when the garments are ready.



Kunmi Jeje showcases his signature scarf to spice up a standard black-and-white color scheme. As pictured above, the look is particularly popular with the ladies.

- Courtesy of Bob Paz

ASCIT Formal. In an appropriately romantic setting up on Mt. Wilson, hundreds of starry-eyed Techers nestled among the telescopes for a night of everything fancy.

The decorations were very tasteful and the gas lamp heaters were perfectly placed to make everyone feel at ease in the brisk mountain air, no matter what they chose to wear. The food was delicious and filling – a perfect complement for the amazing bar that opened later.

Being the most formal event of the year, most attendees took the hint and dressed to the nines. Attempts were made to match accessories, outfits were planned days in advance, and emergency e-mails got spammed asking for hairdo and dress help.

I personally love any occasion that calls for dressing up but when the time finally comes to doll up, I see how stressful these events can be. Shoes and purse should match somehow, the clothing should be fitting and flattering, and hair and makeup should complement the whole look. It is also wise to take into account the functionality and mobility of the clothing. An ill-planned move can rip a dress, high action on the dance floor can cause sweat stains, and navigation through a rowdy crowd may leave unwanted beverage and food stains. These points, too, must be taken into account when dressing up.

There was a wide variety of styles at the Formal. It is always tempting to say that guys have it easy at these events, because all they have to do is wear a suit. The Formal proved this to be false. Our gents showed a

arrangements, different collars. Gents have a choice of what to put in their lapels, what tie to wear, what shoes, what shirt, what tie clip, what watch, what hair, and so on. All of these may seem like minute details, but the refined gentleman knows just how great an impact the small adjustments have on the overall impression they make.

I talked with Santiago Navonne – a well-dressed man – about how he decided what to wear. He did not want to be completely formal by wearing a black suit combination, so instead we went for a silvery gray suit.

To further stray from the black and white theme, he paired a light blue shirt with a darker blue tie. He put even more strategy into accessories. He had three leather things to wear: a watch, a belt, and shoes. He matched the black leather of his shoes and his watch.

However, he consciously chose not to wear a black leather belt and instead wore a brown one. This apparently shocking move had very good reasoning behind it. If he wore a black belt, then his hue would have been cold: all blue, gray and black. He did not want this. Therefore, in choosing a brown color to go in the center of his body, he warmed up his look. This was an especially effective move because early on in the night, the Swiss gentleman showed his engrained chivalry by lending his jacket to a girl who was cold, so all of his careful choices of leathers and fabrics were in the open.

Santiago was not alone among the gents to shake things up. Kunmi Jeje went hard for the black

shade striped black-and-gray scarf thrown nonchalantly around his neck. When asked about his look, Kunmi said that "it's all about the scarf. Throw a scarf on anything and you instantly look twice as classy." Well, I say he did a good job!

The ladies also demonstrated great variety. There were evening gowns, clubbing dresses, high-low dresses, knee-length dresses, and all sorts of fabrics and prints. Now I have some personal qualms with some of these, but I will not rant too much about them, because this is a matter of opinion. However, I will say that I just do not understand the high-low skirts (the ones that are very short in the front and very long in the back). Occasionally they look good, but anything can look good occasionally, even a trash bag cleverly worn at an ABC party.

Most of the time, they look to me as though the wearer either could not decide what length to wear, or has read too many tabloids where she sees



## INNOWORKS SCIENCE CAMP

We are looking for **undergraduate students** to be **mentors** for a middle school summer camp on campus from August 5-9th. This year, our activities include working with Lego Mindstorm Robot kits.

Interested? Shoot an email to [caltech@innoworks.org](mailto:caltech@innoworks.org)!

# ASCIT President (3 candidates)

## ZACH RIVKIN

ASCIT President candidate

Pre-Frosh Weekend has come and gone, and with it the often asked question of why Caltech? For me, originally, it was the research opportunities, prestige, and the oh-so-beautiful weather. These still ring true, but in my time here I have learned what truly makes Caltech unique: the house system, the Honor Code, and of course the people. These pillars of Caltech are the reasons why I am running for ASCIT President.

The coming year will be impactful towards the houses as Ricketts is revamped and a joint committee of students and faculty evaluates the efficacy of the current Honor Code. It is important that the ASCIT President supports the IHC at this crucial moment in the history of the housing system. While ASCIT should defer to the IHC in some of these matters, it is important that the entire student government act as a united force, particularly when interacting with the administration.

At the recent Student Faculty Conference, there was heated debate on the Honor Code and its implementation. The new ARC Chair will sit on a most influential committee that may determine the fate of the Honor Code going forward. As with many issues, ASCIT should be transparent and help collect student opinion on these matters so the full undergraduate perspective is considered.

With the above in mind, it is imperative that the next ASCIT President focus on effectively and transparently running the ASCIT Board of Directors (BoD), improving student-administration relations, and using the influence of the position to push for positive change, especially in regard to mental health.

In terms of running ASCIT and having student government experience, I am the best-qualified and most capable candidate. As Avery President, I led our excomm to be more productive than the past two years combined, worked with Housing and the Deans through thick and thin, and helped improve the reputation of the House to the point where IHC officially recognizes Avery as an equal House.

On IHC, I gained valuable experience working in student government and with administrators, as well as formulating the solution to housing the large frosh class. I also acted as a de facto BoD member, filling in as IHC chair.

I am involved in many student groups, which allow me to interact with a large fraction of the student body, and am the undergraduate

representative on the Caltech Identity Steering Committee. For all of these reasons, I feel I have a

between the students and the administration.

Fortunately, all is not lost, and there is much to be gained if approached correctly. In order to effectively work with the administration, we must present a levelheaded leadership that can restore positive relationships with administrators. Rude behavior and flippant outbursts from student representatives will only harm the undergraduate community as a whole, while reasonable interactions will lead to an efficient governing body that can universally enact positive change.

Lastly, I would like ASCIT to take a stronger role with respect to improving the mental health safety net at Caltech. A 4-year graduation rate of ~76% is pretty bad, but it is worse when it represents seeing some of my closest friends struggle and need to take time off or transfer. In Avery and around campus, I have felt this happen way too many times. There is no simple panacea, but common sense measures can improve



good understanding of the global student perspective at Caltech.

Student-administration relations are at a critical point. Recent actions—introduction of ACs, limitations on initiations and restricted tunnel access, inane policy enforcement, and the past couple years of all things related to Ricketts—have severely weakened trust and mutual respect

I will help all Brazilian families, especially mine!”, and “What does a congressman do? I don’t know—but vote for me and I’ll tell you!”

What did his hard work get him? Well, ask the people, who led

a clown, illiterate, and the last bastion of hope for honest people living under the corrupt shadow of the organization known as ASCIT. You should vote for me to end our great corruption, nay, you should vote for me to screw the veil of peace to the hearts of men!

After all you have no choice to vote for me my fellow comrades: a vote for “No” is a vote for “Raj” is a vote for “No” is a vote for “Raj,” and a vote for any other candidate is a vote for “No” and is thusly a vote for me!

So then in closing, just remember: we may struggle with the Deans, with each other, with how to move on after the erosion of our freedoms, with problem sets taking all of our time, with that inescapable feeling at 3 a.m. that you are going nowhere and the following feeling at 4 a.m. that things are not okay—but it cannot get any worse! Vote Raj!

him to victory by a 6.35% margin and made him the second most-voted-for congressman in Brazilian history.

Why is this relevant to me and my candidacy for ASCIT President? You see, it is very complex: I am one of the reincarnated forms of Tiririca the Clown. I too am

mental health, the graduation rate, and overall happiness.

In 2011, Caltech’s Task Force on Mental Health and Suicide Prevention offered reasonable recommendations such as longer and more convenient counseling center hours. These could have been helpful in the wake of last year’s suicide, or personally freshman year when I nearly transferred out. Also on the table is Blacker alum Peter Buhler’s report on improving mental health for undergraduates, advocating for improved UCC training and the addition of Mental Health Advocates. He and I corresponded with an MIT student this summer to improve their Mental Health safety net. Now it is time to improve our own.

Caltech is an incredible institution, but there is certainly room for improvement. If given the opportunity, I promise to serve the student body diligently and lead it passionately.

As previously explained, I am well qualified to take on this position. My previous leadership experience on campus has allowed me to understand the viewpoint of a large segment of the undergraduate body and develop valuable relationships with administrators. Both of these experiences will make me an effective proponent of student well-being, including the improvement of overall mental health.

Thank you for reading and I look forward to representing you all.

## RAJ MIRPURI

ASCIT President candidate

Rarely in human history there emerges a true leader, someone that people can really get behind and push off a cliff. I am not such a man, but I would like to tell you a story about one...

In Brazil, in 2010, a leader was forged from the weak flimsy shell of a clown. His name? Tiririca. Some say he ran as an act of protest against an increasingly corrupt system, some say that he was just a clown, and others say he was illiterate and other people made him run.

In any case, he ended up running, not in a marathon, oh no, but in a race for a seat on Brazil’s National Congress representing the state of São Paulo. He famously campaigned with such brilliant slogans as: “It can’t get any worse! Vote Tiririca!”, “If elected



## DHIRAJ HOLDEN

ASCIT President candidate

One of the duties of the ASCIT President is to provide a voice for the students in discussions with faculty and administrators.

Why, then, have the ASCIT Presidents in my time here not done this in a satisfactory manner?

During the last two years, there have been numerous issues with



administrators making arbitrary decisions, and frequently the response of the ASCIT President

has been ‘Oh, don’t worry, we’re working on a solution; there’s no need to pursue more aggressive alternatives,’ and nothing gets done.

Whose fault is this?

It seems that at least some of the blame must be put on the previous ASCIT Presidents for failing to be our voice, for complying with the administration in exchange for maintaining political capital that never gets spent.

This is why I am running; I want to end this chain of ASCIT President after ASCIT President who gets nothing done for no reason.

I will be the Charles de Gaulle to these past few years of Philippe Pétain, or, for those of you who are not familiar with history, the Gordon Freeman to these past few years of Wallace Breen.

## Director of Ops. (2)

**MATEO MARTINEZ**  
Director of Operations  
candidate

We all have a reason why we chose to come here. Nevertheless, the Caltech community consists of 900 of the brightest minds in the country, half of us trying to survive Core and the other half glad that boot camp is over. But there is a component to this community that I find more important than classes: our sense of belonging and our identity as Techers. When I came here, I thought I was just here

to learn to be a good Chemical Engineer, get a good job, and get on with it. However, I have come to realize that it has been the bonds I have made with close friends here that have changed me the most. It has been these friends from all around the houses that have taught me one thing: we are Techers first.

Today, I just want to share the reason why I am running for ASCIT Director of Operations.

**CONNIE HSUEH**  
Director of Operations  
candidate

Director of Operations can be a very methodical, routine job. It involves overseeing clubs and publications, allocating funding, and keeping inventory, and it's hard to imagine anyone saying that they are passionate about this kind of paperwork. But I am passionate about you, the students of Caltech, and I believe that I can best serve you as your Director of Ops.

I love that Caltech students find ways to pursue their interests inside and outside of science. I love that you guys sing, and build robots, and juggle. In the spirit of PFW, when I visited as a prefrosh, the Longboarding, High Fiving, and V-neck Club heckled unsuspecting prefrosh, and that is the type of Caltech humor and attitude I have come to admire. I love that you also give back to our community, and I want to support all of that in any way that I can. As Director of Ops, I would strive to make club charter and budget processes as smooth as possible, so you can focus on the things that



My personal desire to help people, to help establish events and environments where we can foster profound friendships (even beyond the walls of our houses), is what moves me to run for this position. I care about this community as much as every one of us, and I wish to preserve it with ways that can help keep Caltech the place we cherish it to be.

In light of recent events, our community has been shaken pretty hard. Tempers have flared, and it is all with due reason. I personally feel that now is the time for us to not only acknowledge

our love for the House System, but also remember that we are Techers first.

As a UCC, I have learned to become a better listener and a better servant to those around me. If I am granted the opportunity to serve you through the position of Director of Operations, it will be only to try to benefit the Caltech community and to listen to the desires and concerns of everyone.

matter. I would work behind-the-scenes and with administration to get you the resources that your club needs to function. Because I believe what makes us a truly incredible group of aspiring scientists and engineers are our diverse interests outside of classes and sets, and I don't want efforts to pursue these to be hindered by bureaucracy or disorganization. I am an ideal candidate for this position because I would dedicate myself fully to it. I am well-organized and diligent, and

though the tasks may be at times menial, I recognize the greater impact that they may have on student life. In addition, as a Caltech varsity athlete, I love sports and the

way they bring people together, and I would work with Betsey Mitchell to ensure that club sports get the time, space, and funds they need. I am receptive to new ideas, and I want to work with you to make Caltech better.

It would be a true privilege to serve Caltech as your Director of Operations, and if you have any comments, questions, or concerns, please email me at [chsueh@caltech.edu](mailto:chsueh@caltech.edu) or talk to me. Thank you for your time and consideration.

## ARC Chair (1 candidate)

**MALVIKA VERMA**  
ARC Chair candidate

Your 9 a.m. class has unannounced in-class quizzes worth 30% of your grade. Your new P.E. class has mandatory lectures and a final (what?). The professor gives your class an exam that only he could finish. Your 9-unit class has sets that take 20 hours every week.

This is when you contact your local ARC rep. My name is Malvika Verma, and I would like to be your ARC chair. These are just a few of the issues I can help communicate to our professors.

I have a vision for the ARC. It should have students who are excited to interact with professors and administrators, students who are confident about voicing opinions on academic matters. The ARC is an additional guardian of the Honor Code. When there is a question about a collaboration policy, we help the students and professors clarify the policy together. I would like to create monthly BOC meetings with professors so that they can understand our dedication as undergrads to uphold the Honor Code. I also have a new strategy for



handling course complaints. If there is a complaint with a class, run a survey and develop suggestions for constructive changes. As scientists themselves, professors will respond to numbers. Surveys are a great way to communicate student opinion.

It is important to constantly assess the state of our academics.

very soon. My experience has put me in meetings with Melany Hunt, John Dabiri, the deans, Niles Pierce, and Cassandra Horii. I'm comfortable talking to all of these people about academic and even non-academic issues. I have been involved in almost every aspect of what the ARC does. These include

running the first option fair last year, handling course complaints, sitting on the Core Curriculum Steering Committee last year, serving on the Council for Undergraduate Education this year, discussing the Honor Code in a student-faculty focus group, chairing the Bioengineering SFC committee, and organizing the student-faculty lunches.

I also will continue the Undergraduate Seminar Series, Professor of the Month, and ASCIT Teaching Awards. As an experienced candidate, I can hit the ground running as your ARC Chair.

We are Caltech students. We deserve to have classes that are as good as us and as good as our professors. I am proud to work with you towards a better learning experience for all of us.

## Social Director (1 candidate)

**MICHELLE TANG**  
Social Director candidate

I have served as ASCIT Social Director in some capacity for four school terms thus far – one as interim and the other three as elected. During this time, I have become incredibly familiar with the ins and outs of the position.

As the current social director, I have continued to uphold old social traditions including Big Interhouse, ASCIT Formal, ASCIT Movie Night, and Europarty.

I have personally initiated several new events/traditions during my term as well. These events include Interhouse Pumpkin Carving, Chouse Holiday Bash, Winter Wonderland, Be A Kid Again, A Night at the Rathskeller, and a variety of other free food events and parties.

I ultimately try to ensure that social events occur every weekend by planning an event on any weekend that appears to be free. In addition, I have a number of ideas for social events that I hope to be able to carry out in the subsequent year if elected.

I would plan another ASCIT Movie Night at the Edwards

Theater in Alhambra so everyone can watch Iron Man 3 for free, coordinate with exchange students

Furthermore, I hope to carry out social events on a more frequent basis and arrange for more off-campus opportunities.

Throughout the past year, I have also gained a lot of experience working with members of the Board of Directors, Tom Mannion, and other important members of administration.

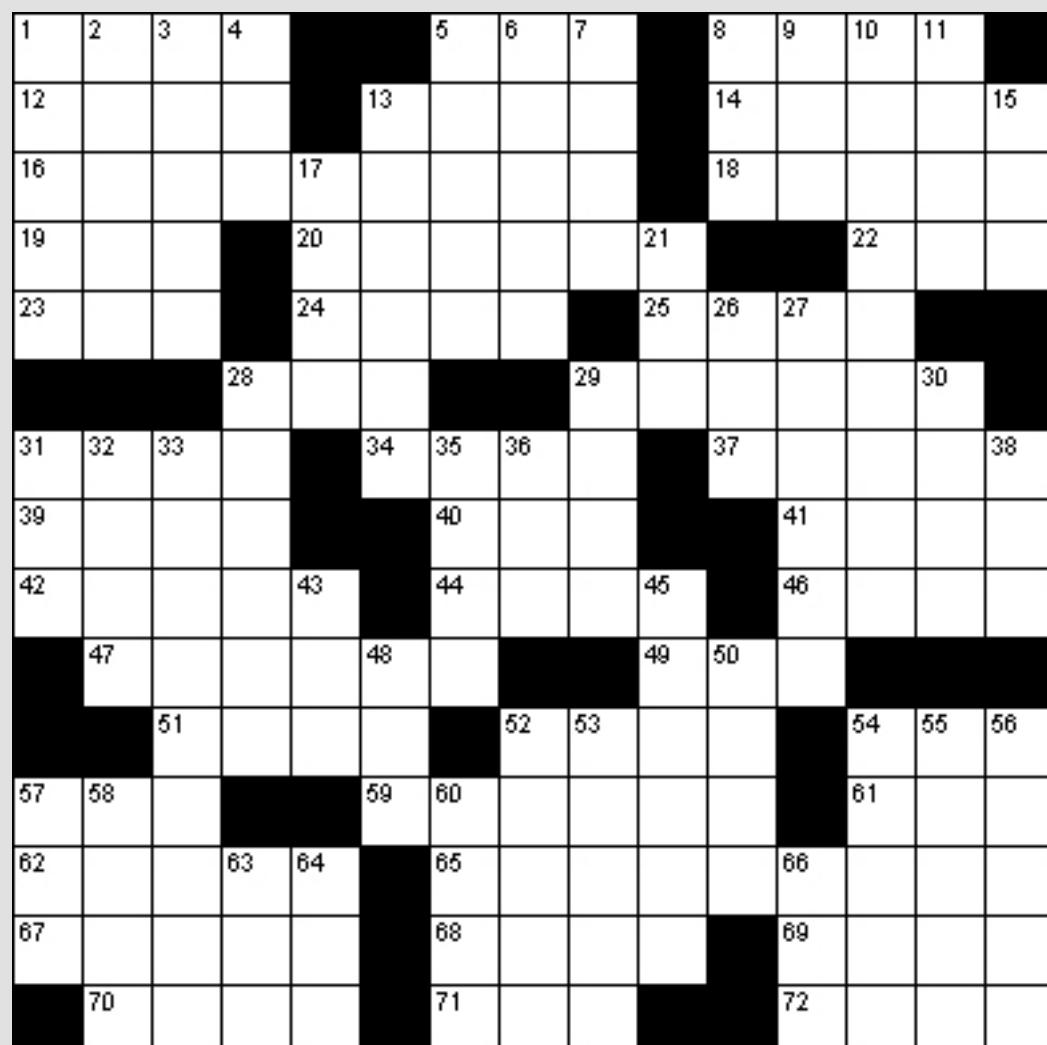
As a result, I have developed strong relations with all of them. Furthermore, I have accumulated a number of reliable social contacts in the area for DJs, rental services, and more.

I believe that after serving as ASCIT Social Director for more than a year, I am incredibly receptive to what Caltech students want and more than willing to hear students out if they have new ideas.

If elected, I will work my hardest to foster a better social environment here at Tech.



# Today's Puzzle: Crossword



[<http://www.puzzlechoice.com/>]

## Across

- 1. Fraudulent business scheme
- 5. Computer memory, initially
- 8. Double
- 12. Instance
- 13. \_\_\_ Horn
- 14. Common
- 16. Netherlands city
- 18. Cover with liquid for cooking
- 19. Indicates maiden name
- 20. Signal fire
- 22. Beverage
- 23. Measure of rum
- 24. Not widely known
- 25. Agree
- 26. Decay
- 27. Relating to the backbone
- 28. River in central Europe
- 29. Book of maps
- 30. Oaf
- 31. Spanish resort, Costa del \_\_\_
- 32. Ascent
- 33. Concentration
- 34. Departed
- 35. Alleviate
- 36. Broke
- 37. Sulk
- 38. Snakelike fish
- 39. Fringe benefit
- 40. Decay
- 41. Relating to the backbone
- 42. River in central Europe
- 43. Book of maps
- 44. Oaf
- 45. Spanish resort, Costa del \_\_\_
- 46. Ascent
- 47. Concentration
- 48. Departed
- 49. Alleviate
- 50. Broke
- 51. Snakelike fish
- 52. Fringe benefit
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- 59. Ascent
- 60. Concentration
- 61. Departed
- 62. Alleviate
- 63. Broke
- 64. Fringe benefit
- 65. Decay
- 66. Relating to the backbone
- 67. River in central Europe
- 68. Book of maps
- 69. Oaf
- 70. Spanish resort, Costa del \_\_\_
- 71. Ascent
- 72. Concentration

## Down

- 1. Light or short
- 2. Anaglyph
- 3. Item of value
- 4. Encountered
- 5. Detection device
- 6. Rapidly
- 7. Note
- 8. Invest with knighthood
- 9. Country
- 10. Canberra is the capital
- 11. Tardy
- 13. Invent
- 15. Pasture
- 17. Spanish river
- 21. Light sleep
- 26. By way of
- 27. Main course
- 28. Come back
- 29. Ego
- 30. Young girl
- 31. Fairy
- 32. Pillage
- 33. Capital of Romania
- 35. Small island
- 36. Fish eggs
- 38. Observe
- 43. Drunkard
- 45. Serving dish
- 48. Beak
- 50. Related
- 52. Blended food
- 53. World's highest falls
- 54. Aflame
- 55. Jordanian currency
- 56. Imbibed
- 57. Watery part of a plant
- 58. Wading bird
- 60. Garden tool
- 63. Consumed
- 64. Common gull
- 66. Gratuity

# Experimental Performance Lab presents *Tesla*

**CINDY DE MESA**  
Contributing Writer

The Experimental Performance Laboratory at Caltech and The Pasadena Playhouse present *Tesla*, a radio play for the stage.

Directed by acclaimed Los Angeles director Michael Arabian with live sound effects by the SFX artist Tony Palermo, *Tesla* will run for one day only on the Mainstage of The Pasadena Playhouse, Saturday May 4th, 6:00pm.

Special guest stars include Phil Proctor ("Big Brother," *Toy Story*) as Thomas Edison; French Stewart ("3rd Rock from the Sun," *Stoneface*) as Tesla; Sandra Tsing Loh (Caltech alum and NPR's "The Loh Life") as Katherine; Dr. Ashley Stroupe (JPL Mars Rover Opportunity Driver), playing multiple roles; Dr. Steven Collins (JPL Mars Rover Curiosity Engineer), playing multiple roles; and Brian Brophy ("Star Trek: The Next Generation," director of Theater Arts at Caltech), playing multiple roles.

*Tesla* tells the story of Nikola Tesla's life as a brilliant but controversial inventor and futurist during the late-19th and early-20th century. The play is excitingly staged as a radio drama featuring live sound effects. Tesla's volatile relationship with Thomas Edison, his allegiance with George Westinghouse, and his confrontation with the power brokers of American business are

Brophy. "When my friends director Michael Arabian and Elizabeth Doran, the new Executive Director at the Playhouse, decided to come onboard, everything came together. This project is unique because it features actors from the multi-talented Caltech/JPL community alongside professional actors from the theater and film world. The staging will be intriguing to

scriptwriter for the Pageant of the Masters in Laguna Beach.

Director Michael Arabian is well-known to Los Angeles area audiences, and most recently directed *Waiting for Godot* at the Mark Taper Forum.

*Tesla* is showing for one day only on Saturday, May 4th, at 6:00pm at The Pasadena Playhouse Main Stage.

A post-show conversation and reception with the playwright, actors, and director will follow the performance.

Proceeds for the event directly support Theater Arts at Caltech. Tickets are \$20 in advance at The Pasadena Playhouse Box Office, or Pay-What-You-Can Donation to Theater Arts at Caltech at the door.

**Related information for *Tesla* and Theater Arts at Caltech:**

The staged reading of *Tesla* kicks off the second year of the Experimental Performance Laboratory at Caltech's New Plays Festival, a series of four staged readings of new science-based plays.

*Out of Orbit* by Jennifer Maisel is the second play in the series, on May 11, directed by Ann K Lindsey.

*Out of Orbit* tells the story of a Mars Rover Mission Specialist at Jet Propulsion Laboratory (JPL), played by Dr. Ashley Stroupe, a "real-life" JPL Mars Rover Driver. Can a brilliant scientist relate to a learning deficiency in her daughter? Can she keep up with her life on two different planets?

*Sila* by Chantal Bilodeau is the third play of the series on May 18, directed by Arden Thomas.

*Sila* stars Sandra Tsing Loh, host of NPR's *The Loh Down* and Caltech's *The Loh Down on Science*. *Sila* is a powerful, gripping, and poetic play about climate change and its consequences for the people and animals living in the Arctic Circle.

*The Washing of Water* by Marcus Renner is the final play in the series on June 1, directed by TACIT artistic director Brian Brophy.

*The Washing of Water* is based on over 60 interviews conducted across Altadena, La Cañada Flintridge, and Northwest Pasadena.

*The Washing of Water* follows an artist activist, a homeless teenager, and a mother whose stories intersect as they fight a polluted past and search for a fresh start amidst the wilds of the Hahamonga Watershed Park.

See [www.tacit.caltech.edu](http://www.tacit.caltech.edu) for more information about the New Plays Festival.

**"**  
**A partnership with The Pasadena Playhouse and Caltech is the perfect synergy of science and art...This project...features actors from the multi-talented Caltech/JPL community alongside professional actors from the theater and film world.**

**- Brian Brophy**

recounted from the perspective of the possible implications of his work to national security.

"A partnership with The Pasadena Playhouse and Caltech is the perfect synergy of science and art," says TACIT Director Brian

Pasadena audiences as it is a rare opportunity to see a radio drama with multiple voices, archival footage, and live sound effects."

Playwright Dan Duling is an award-winning playwright, author of more than 20 plays, and the

# Caltech baseball succumbs to CMS after lead

**GOCALTECH.COM**

The Real Sports Editor

Late game scoring innings were the difference in both games as ClaremontMuddScripps swept a doubleheader from Caltech on Saturday afternoon.

## Game One – CMS 10, Caltech 7

In a back-and-forth game the Stags put together enough offense in the late innings to pull out the win.

The visitors got on the board in the third inning when Christian Hoxsie and Brent Wantanabe crossed the plate. Caltech responded with a four-run bottom half of the inning.

Brian Penserini started the scoring when he crossed the plate on an error by ClaremontMuddScripps.

Derek Kearny continued the momentum with a two-run double that scored Albie Lavin and Jerome Skelly. Kearney came around to

score two batters later to give the Beavers a 4-2 lead. Caltech added to their cushion with a run in the fourth inning when Lavin singled home Daniel Chou.

The visitors rallied with a three-run sixth inning. The scoring was capped off when Brian Barlett's double scored a pair of runs.

The Stags took the lead with two more runs in the seventh inning as Ray Hurwitz and Jack Witte scored.

Trailing 7-5 entering their half of the seventh inning, Caltech tied the score with runs by Mason Freedman and Ryan Casey. ClaremontMuddScripps responded, once again, when they put together a three-run eighth inning on three-hits as Hoxsie, Williams Knowles and Witte crossed the plate. Caltech went in order in the eighth inning and got a runner on base in the ninth before the Snags closed out the game.

Both Lavin and Casey pieced together two hits with Lavin driving in two and scoring another.



Senior Mason Freedman winds up to peg an opposing player with the baseball.

- gocaltech.com

Kearny also drove in two to aid in the Beavers offense.

Witte's three-hit, three-run day highlighted the visitors attack.

## Game Two – CMS 8, Caltech 6 (Box Score)

Another late rally by the Stags proved to be the difference in the contest.

Caltech jumped in front with a two-run, three-hit second inning. Thomas Kwok hit a one-out double down the left field line that scored Ryan Casey and Mason Freedman. ClaremontMuddScripps countered with two runs in the third inning as

Jack Witte's two RBI single knotted the game at 2-2.

The Beavers put a single run on the scoreboard in the fourth inning on a Blaine Matulevich suicide squeeze that scored Ryan Casey. Caltech up their lead with a three-run fifth inning.

A Derek Kearney double scored Brian Penserini then one batter later Freedman hit a double to right centerfield that scored Kearney and Jerome Skelly.

Down 6-2 the Stags responded right away with a six-run sixth inning.

The visitors pieced together their inning with four hits and one

Beaver error. The deciding blow came when Brett Wantanabe laced double past third base that scored Jack Witte and Scott Witte with two out.

Caltech was able to get a runner on base in both the seventh and ninth innings with no outs but double plays erased the potential rally.

A host of Beavers tallied two-hit afternoon in the second game as Caltech tallied a season high 13 hits. Matulevich, Penserini, Skelly, Freedman, Casey and Kwok each had multi-hit efforts.

Daniel Chou went the distance for the fifth time this season.



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by Dr. Z



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