

Caltech Student-Faculty Conference (SFC) to be held this Wednesday

SANDHYA CHANDRASEKARAN
News Editor

“It is important for every educational program to ask, “How are we doing? What’s working? Where can we do better?”

On Wednesday, April 6, Caltech will hold its biennial Student-Faculty Conference (SFC), which caters to the aforementioned views of Vice Provost Melany Hunt as well as several other Caltech students and faculty.

Overview:

As stated by the Academic Research Committee (ARC), “The Student-Faculty Conference is an all-day forum discussion between students and faculty about issues relating to individual majors and undergraduate life as a whole.

The feedback and suggestions that come out of the SFC shape the future of the academics and student life around campus. It is held every other year as a measure of self-scrutiny and review of Caltech education and student life.”

During the fall term, the ARC appoints members of SFC Committees, which consist of approximately five students and five

faculty members. The committees then spend a term analyzing specific aspects of academic or campus life, and present and lead a discussion on their findings during the conference.

Each committee works to implement their recommendations and feedback from the conference, and prepares a report summarizing their work.

The conference is organized by the ARC, with support from the faculty, Student Affairs, the Council on Undergraduate Education (CUE), and the Provost’s Office.

Value to the Caltech Community:

The Student-Faculty Conference was originally intended to be, and still very much is, an open forum through which students and faculty can discuss relevant issues and come to solutions that improve both the students’ and faculty’s experiences. While evaluative tools such as the end-of-term TQFR reports do provide some feedback, a qualitative understanding of the course stems from the comments, which predominantly consist of one or two sentence complaints.

Although this does communicate the existence of problems, it does not propose an effective way of altering the courses. Relating these issues to faculty in a professional, yet informal, setting results in actual,

implementable changes for future students.

Ray Deshaies, Professor of Biology, relates his experiences on the SFC Biology Committee this year: “The [SFC] meetings coincided with my putting together a design for Bi9, which I am teaching (along with Dr. Aravin) for the first time this year. A number of issues came up that I had not previously thought about, and as a result I made significant changes...all based on input that was a direct result from talking to my student colleagues who were on the committee. It is too early to say how good of a course Bi9 will turn out to be, but if it is successful, it will be due, in no small measure, to the useful input I got from being a member of the [SFC] committee.”

ARC Chair Margaret Chiu stresses the importance of the SFC in helping to bridge the inevitable gap between the students and the faculty: “Realistically, as undergrads, we have no actual power to change academics at this school. We are very lucky, however, to exist in a community where the faculty respect and value our opinions so that we do have the ability to instigate change. An importance piece of this is to start a dialogue between students and professors. The SFC is definitely a good thing, in that it gets students and faculty in the same room talking about how we can make Caltech better for everyone.” In fact, as SFC

Chairman Karthik Sarma states, “SFC is a good mechanism for gradually improving academics at Caltech. By consistently making a review every two years, the student-faculty committees can evaluate the success of any changes made at the previous conference and then build upon them.”

A Brief History:

[Based on Caltech’s 2010 WASC accreditation report, prepared by Vice Provost, Melany Hunt]

Caltech began to host these student-faculty conferences in 1980 as a way to facilitate active discussions about academic and student life concerns between students and faculty.

During these early years, the conferences were two-day events where the faculty was asked to cancel class to promote campus-wide participation.

Continued on page 3

| Option Committees | Location: | Time: | Committee Chair: |
|-----------------------------------|--------------------------|--------------|--------------------|
| Applied Mathematics | Computational FIR 306 | 1:30-4:00 PM | Chris Wong |
| Applied Physics | | 1:30-4:00 PM | Ben Cherian |
| Astrophysics | CHL 312 | 1:30-4:00 PM | Jennifer Greco |
| Bioengineering | ANB 106 | 3:00-4:00 PM | Shruti Mishra |
| Biology | BBB 24 | 1:30-4:00 PM | Maragret Chiu |
| Chemistry | GTS 22 | 1:30-4:00 PM | Eva Nichols |
| Chemical Engineering | SPL 106 | 3:00-4:00 PM | Helen Luo |
| Computer Science | ANB 105 | 1:30-4:00 PM | Ilya Nepomnyaschiy |
| Electrical Engineering | | 1:30-4:00 PM | Bonnie Zhang |
| Engineering and Applied Science | BI 121 | 1:30-4:00 PM | Sylvia Puglisi |
| English | DAB 117 | 1:30-4:00 PM | Jasmine Sears |
| Geological and Planetary Sciences | SMD 254 | 1:30-4:00 PM | Will Steinhardt |
| Mathematics | SLN 151 | 1:30-4:00 PM | Sam Elder |
| Mechanical Engineering | | 1:30-4:00 PM | Yichuan Sun |
| Physics | | 1:30-4:00 PM | Alex Rasmussen |
| Political Science | | 1:30-4:00 PM | Garrett Darl Lewis |

In this issue

- NEWS** 3
Yale gives artifacts back to Peru
- OPINION** 5
Caltech Dance Show dazzles audiences
- FEATURE** 6
Jorge Cham sits down for a fireside chat
- SPORTS** 7
Lapides prepares for lunar voyage
- HUMOR** 8
David Ginola. Enough said.

News briefs from around the globe

Provided by Tech correspondent Sam Barnett

- Need to know** < **100** words about the world this week – topics sorted from good to bad
by Sam Barnett – links to full stories available at barnett.caltech.edu/news
- Job market improving** **216,000** new hires in March – lowest unemployment since 2009 [CNN]
- Thorium-based energy** **200** times more energy per mass than uranium – research in China [WEEK]
- Debates over gun laws** **4** states discuss fewer limits – Arizona, N. Dakota, S. Carolina, Texas [WEEK]
- No federal budget yet** < **1** week to reach a deal – temporary government shutdown possible [WPOST]
- Japan’s car sales drop** **↓ 37%** since earthquake, nuclear crisis (March 2011 vs. March 2010) [CNN]
- Higher radiation levels** **25** miles from damaged power plant in Japan – long-term danger [NYTIMES]
- Gadaffi bombs hospital** **16** people injured – regime’s army outnumbers Libyan rebels 10 to 1 [CNN]

The deadline for submissions to the Totem has been extended!

Caltech's literary and visual arts magazine is looking for submissions for this year's edition.

The deadline was extended by a week, until April 11th. We are looking forward to seeing your work!



The California Tech

Caltech 40-58, Pasadena, CA 91125
advertising e-mail: business@caltech.edu
editorial e-mail: tech@caltech.edu

Editors-in-Chief
Jonathan Schor
Stanford Schor

News Editor
Sandhya Chandrasekaran

Sports Editor
Amol Kamat

Business Manager
Jenny Yung

Staff
Sadaf Amouzegar
Yang Hu
Casey Jao
Rebecca Lawler
Joel Nikolaus
Pradeep Ramesh
Neha Samdaria
Gloria Tran
James Wu
Caroline Yu
Wesley Yu
Chris Zheng

Circulation
Arjun Ravikumar

Advisor
Tom Mannion

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 authors and advertisers.

Letters and submissions are welcome; e-mail submissions to tech@caltech.edu as plain-text attachments, including the author's name, by Friday of the week before publication. *The Tech* does accept anonymous contributions. The editors reserve 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 or as camera-ready art, but *The Tech* can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at business@caltech.edu. For subscription information, please send mail to "Subscriptions."

Write articles for the Tech

get paid up to \$30

ASCIT minutes

March 15, 2011

Officers present: Chris Hallacy, Laura Conwill, Margaret Chiu, Diego Caporale, Laura Santoso
Officers absent: Mario Zubia, Prakriti Gaba

Call to order: 10:08 pm

President's report:

1. AC's: Hallacy and Laura Conwill are going to meet with housing to discuss the AC's (area coordinators). They are trained professionals hired by Caltech and housing is considering putting them in the houses. We are unsure of their purpose, however, and we want to clear that up at this meeting.
2. Faculty board meeting: Hallacy and Margaret went to the faculty board meeting, see course capturing in ARC report
3. Services: We need to advertise ASCIT BoD services so that students know what we do, how we can help them, and who to approach with different issues. This will go on donut, in the Tech, and on the Olive Walk board.
4. Division of committees: ASCIT BoD and IHC need to reevaluate who should appoint which committees. We need to consider if knowing the students personally is beneficial or not in appointing the committees.
5. Budget: Reviewed the proposed 2011-2012 budget. Major change from last year's budget is removing money from project reserves and salary bonuses and adding money for intercollege events, the ASCIT screening room, and ASCIT Formal. VOTE: Approved (4-0-0). Budget will be available on Donut shortly.
6. Goals: Over break, everyone in the BoD is to think about personal goals for their position and overarching goals for the BoD. 500 word paper (jk).

Officers' reports:

1. VP of Academic Affairs (ARC Chair):
 - a. Course capturing: The academic policy committee passed a policy for course capturing (recording classes) with lots of rules to avoid legal problems. The policy is neutral – course capturing is neither encouraged nor discouraged.
 - b. Humanities policy recommendation: The CCSC passed a recommendation that advanced hum classes cannot be taken pass/fail and that advanced language won't count as advanced hums. They want to emphasize the importance of writing. This will be reviewed by other committees.
2. VP of Non-academic Affairs (IHC Chair):
 - a. Prefrosh weekend: LC is talking to Tom Mannion and Jarrid Whitney about finalizing the Saturday schedule for Prefrosh Weekend.
 - b. Students in admissions: Admissions is considering desired student involvement in the admission process. It's been proposed that students will not read applications, but will participate in meetings, look at summaries, and vote. This issue will go before the Faculty Board.
 - c. Health eds and psychologists: Kevin Austin (director of Health and Counseling Center) is looking for students to serve on committees to appoint staff psychologists and health educators. House presidents are looking for potential candidates.
 - d. Privileges: There was a request for the secretary to be able send emails to ug-list and for the IHC to have survey viewing powers. It was undecided if this was necessary, LC will check what happened in the past.
 - e. New appointments: Brock Jones (review committee), Taylor Martin (food committee), Thimal Alwis (athman), Race Diloreto (stewardship committee chair)
3. Director of Operations:
 - a. Screening room: Diego's determining a list of things to buy for the screening room, including remote controls, PS3 etc. (going for more basic, functional equipment).
 - b. Yearbooks: We need to give complementary yearbooks to faculty and staff.
 - c. Clubs: We need to update active clubs on Donut so current and prospective students are aware of what's available.
 - d. Inventory: We need to inventory ASCIT property and look into storage.
4. Treasurer: absent, see budget approval under President's report.
5. Social Director: absent, will review ASCIT formal planning next time.
6. Secretary: need to update and waterproof the bulletin board, schedule a turnover retreat dinner, club funding date.

Meeting adjourned: 11:07 pm

World news: Yale returns artifacts to Peru

BRANDON COMELLA
Contributing Writer

On Wednesday, after almost a century, Yale returned artifacts taken from Machu Picchu to Perú.

Hiram Bingham, the Yale lecturer and explorer who is credited with bringing the site to international attention, borrowed around 4000 artifacts to study at Yale.

The government of Perú has been fighting ever since for their return.

In the past ten years their efforts have intensified, with Perú filing two lawsuits, and a personal appeal to President Obama by Peruvian President Alan García.

Perú and Yale signed an agreement last year to return the pieces to be exhibited in Cusco, the capital of the Incan empire. The first 363 artifacts arrived in

museum, run by the University of Cusco, San Abad.

This is the first of several shipments. Another one is scheduled to arrive later this year, with the rest arriving throughout 2012.

The pieces taken by Hiram Bingham include textiles, pottery and ceramic fragments, as well as mummies and human remains.

The arrival of these archeological treasures was celebrated in a grand ceremony in front of the Government Palace, where President Garcia gave a speech saying that, "Even though these archeological remains might not be made of gold or precious gems, they are treasures made by the hands of our ancestors, and represent the dignity and pride of Perú."

After the ceremony, the historical objects were sent to be



Workers carry a crate of relics to present to the president of Peru during the welcome ceremony.

- Ernesto Benavides/AF

“

Negotiations were further strained when Yale called the artifacts ‘Incan trash’ and expressed their fear that...they would not be ‘properly appreciated.’

the capital Wednesday morning, and were escorted by 600 police officers to the Government Palace. They will be exhibited in Lima for a week before reaching their ultimate destination of the Casa Concha

unpacked and prepared for the upcoming exhibition.

There was increased enthusiasm amongst Peruvians at the return of the Incan relics, as Perú is preparing festivities to commemorate the

100th anniversary of Machu Picchu’s introduction to the world.

The UNESCO World Heritage site is one of the most popular tourist attractions in South America, and Perú hopes to attract more visitors with celebrations in July that are rumored to include music superstars Sting and Sir Paul McCartney.

The ancient treasures will be available for viewing in Cusco, the main stopping point for tourists on their way to Machu Picchu.

While the exhibit will charge tourists for admission, the museum has decided to give free admission to all Peruvians as a celebration of the return of part of their heritage.

Tensions between Yale and the Andean nation have run high over the past few years.

At one point, a rumor that only 20% of the relics were going to be returned caused a national uproar among both politicians and citizens.

Negotiations were further strained when Yale called the artifacts “Incan trash” and expressed their fear that if they were returned to their homeland, they would not be “properly appreciated.”

An agreement had been reached twice before, but Perú backed out due to concerns that not all the treasures would be returned.

Increased pressure from politicians, such as Senator Chris

Dodd and the former first lady of Perú Eliane Karp de Toledo, as well as from organizations such as the National Geographic Society, led to renewed talks.

The two parties were able to reach an agreement last November, and promised to return all pieces excavated from Machu Picchu from the expeditions Hiram Bingham led from 1912-1916; some pieces will remain at Yale, such as those Bingham bought from looters and smuggled out of the country.

Despite the moments of animosity, Yale and Perú hope to put their differences behind them, and look forward to sharing the artifacts with the millions of tourists and citizens of Perú.

SFC expected to be forum of change (continued)

While the conferences were held on a regular biennial schedule during the 1980s, they lost some momentum during the 1990s.

After a hiatus of five years, the tradition was revived in 2002 and was shortened to a one-day event. Since then, these conferences have been held in 2003, 2005 2007, and 2009.

There was also a half-day conference in 2008 pertaining to the student experience trip taken by some undergraduates to learn about academic and student life programs at other universities.

Revisiting Student-Faculty Conference 2009:

In the 2009 conference, there were campus-wide sessions involving the core curriculum, the humanities and social sciences, undergraduate research, and the aforementioned student-experience trip taken during fall 2008. In addition, there were smaller undergraduate option-specific sessions.

These committees began meeting as early as six months prior to the conference to develop specific discussion topics and key

areas for improvement. These issues were raised during committee

“

Realistically, as undergrads, we have no actual power to change academics at this school. We are very lucky, however, to exist in a community where the faculty respect and value us and our opinions so that we do have the ability to change things.

- Margaret Chiu

meetings, student surveys, and pre-conference open forums.

Possible resolutions were discussed prior to the conference as well.

The sessions and meetings were structured according to a letter sent out to all of the SFC chairs once the final committees were chosen.

Not only did the ARC Chair require monthly updates to ensure

that goals were accomplished according to a general proposed

“

timeline, but each committee was also strongly urged to prepare a final summary of the discussion and the current status of any recommendations proposed by the committee.

Vice Provost Melany Hunt details the work of the 2009 Computer Science SFC committee: “As an example, the CS students and faculty chose five areas to focus their

discussion: specific advanced CS courses, introductory CS courses, teaching quality, the relevance of the CS program for students interested in industrial positions, and the relevance of the program for students interested in pursuing research opportunities within CS. For each of these five topics, the CS students and faculty members developed both short- and long-term recommendations. Some of the recommendations regarding course changes have been implemented [since] fall 2010, including a new frontier course for incoming students interested in CS.”

Other notable changes include the new restriction on freshmen taking EE51/52 [time-intensive electrical engineering labs offered during the fall and winter terms]

because of their mandatory pass-fail situation, as well as Bi8 and Bi9, biology classes intended for students interested in biology, fulfilling the CORE biology requirement in the place of Bi1 for non-Bio majors.

Student-Faculty Conference 2011:

The Student-Faculty Conference this year is structured slightly differently from the previous ones, and dedicates the first hour to discussing the current CORE proposals.

In the afternoon, option-specific discussions will be held in individual rooms, listed below.

Schedule for SFC 2011:

- 11:00-12:00 - Core Discussion in Ramo Auditorium

- 12:00-1:30 - Lunch - Free lunch provided to the first 200-300 people. (A fee will be charged to those not participating in a board program)

- 1:30-4:00 - Option-level Discussions.

Today's Puzzle: KenKen

| | | | | | |
|------|----|----|-----|-----|----|
| 11+ | 2/ | | 20x | 6x | |
| | 3- | | | 3/ | |
| 240x | | 6x | | | |
| | | 6x | 7+ | 30x | |
| 6x | | | | | 9+ |
| 8+ | | | 2/ | | |

knittingdoc.files.wordpress.com

Rules: Fill in the 7x7 board with numbers between 1 and 7 (inclusive), making sure not to repeat a number in any row or any column. Additionally, the numbers contained in each bolded set of boxes must equal the number indicated by performing the operation indicated. For example, a bolded set of two boxes that say "2x" must have the numbers 2 and 1 contained in the two boxes, with the order of these numbers determined by the other numbers in each row and column.

A look at class warfare: Who's #WINNING and how can we turn the tide?

EVANS BONEY
Contributing Writer

I'm worried--beyond just the usual "my tax dollars will probably kill scores of civilians in at least 4 different nations today" feeling.

There's a trend in America's politics that is going uncovered, and risks being stuffed behind ever tightening corporate walls.

The trend is this: Corporations and rich people are #WINNING.

Since 1980, the top marginal tax rate in this country has been cut in half. Integrated over that time period, a person who made a million dollars annually every year would save over \$10 million dollars on their tax bill in the last 30 years.

That's a lot. And we have a lot of millionaires. 7.8 million millionaires. Including, by the way, 54 senators.

Just go ahead and munch on that for a second.

One of our legislative branches is majority-millionaire.

Each of these millions of millionaires is reaping at least a \$350,000 annual reward compared to their 1980s counterparts (by marginal tax rate, calculated for a million dollars, assuming no millionaires make more!). That's a MINIMUM \$3 Trillion dollars in tax revenue that could be gotten not by any huge leap to "socialism"... but a return to the days of the Reagan tax code.

\$3 Trillion dollars just by taxing the wealthiest 2.7% what they were taxed in the years of disco.

Why do we have to slap food from the mouths of the poor again? Why are we firing teachers, and firemen, and policemen? Are our kids smart enough, houses safe enough, and streets clean enough?

Am I really supposed to believe that Wisconsin teachers are living the good life?

Locally, am I really supposed to freak out that a small percentage of government officials make over \$100,000?

No. I want quality public servants, and am willing to pay.

And by the way, why not use our natural wealth of greedy millionaires to refuel our national success?

\$3 Trillion dollars buys a lot of national improvements for all of us. Roughly four times the total cost of war in Iraq.

Every year. And getting just a little bit of that back counts as socialism?

Incidentally, you get another \$2 Trillion dollars just by taxing them at post-WW2 rates.

EVERY YEAR!

How does this not get people riled up?

Compared to our 1950s selves, the rich are stealing six Iraq Wars every year. Now that's what I call a pretty good estimate of how the class war has been going.

The poor, and by that I unfortunately mean the median wage-earners, are losing six Iraq wars every year to the richest 2.7%.

We have a long way to go to a class war in the strictest sense, if by that conservatives mean the net transfer of wealth from the rich to the poor.

Compared to the prosperous Americans of yore, we are getting massacred.

Every two months, the poor lose another Iraq War to the rich.

And then you wonder what's happened to the American Dream?

You know what I'd say about traders making millions off derivatives trading in oil if they were taxed at 70% for those earnings?

I'd say they lose half of their incentive to rob us all blind.

Republicans, Bankers, you understand incentives, right?

Why exactly do we need shared sacrifice again? Have we had shared benefit? In the last three decades, the rich have been gaining outsized benefits. We bail out their hedge

2- Well regulated utilities don't create bubbles.

Are you hurting at the gas tank? Exxon Mobil and British Petroleum executives aren't hurting. Neither are the traders at Goldman Sachs and JP Morgan.

Corporate Tax receipts now make up just 12% of our national revenues, where once they made up 35% (late 1950s).

This is not because corporate profits have fallen or other taxes have risen substantially (although the payroll tax has).

So you know what I say to those who say it's time for labor to step up and take a hit?

No, it's time for class warfare.

Let's demand the rich (and their businesses) pay their fair share and an increase in the top marginal tax rate to 50%, and 70% or higher on finance industry profits.

They'd still be winning three Iraq Wars against the poor each year, but at least there would be some triage.

Not that I think this is very likely.

Letting the Bush Tax cuts expire is just a single War...

And how did that go for the poor?

The Netherlands this week approved a 100% retroactive tax on all banker bonuses after their government bailout.



The poor, and by that I unfortunately mean the median wage-earners, are losing 6 Iraq wars every year to the richest 2.7%.



Answers to last week's crossword

Key provided by Helena Zhang

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P | R | I | M | A | T | E | S | | N | T | S |
| R | I | B | A | L | D | R | Y | | O | R | A |
| A | R | I | L | | K | I | N | | O | V | U |
| C | O | D | A | S | | E | A | | M | A | N |
| | | | C | O | | P | T | A | | C | R |
| O | T | E | C | | P | I | S | A | | T | A |
| V | E | G | A | | A | L | E | | S | I | T |
| E | R | G | | A | S | K | S | | C | R | E |
| R | T | | P | A | S | | | E | R | | |
| L | I | S | P | | F | D | | Q | U | A | R |
| O | A | S | T | | A | A | A | | P | A | N |
| A | R | E | | | I | D | E | A | L | G | A |
| D | Y | L | | | L | A | R | G | E | H | I |

funds so wealthy bondholders can get 100% return on the dollar, while Fannie Mae and Freddie Mac take losses on loans sharked by still-billionaires from Wherever Bank, a Division of Somewhere Corp, who can't be prosecuted.

Because rich people can afford good lawyers. And good lawyers can beat the impoverished SEC any day of the week.

Understand why the senate seems antsy to compromise SEC funding and financial regulation?

Millionaires banding together to protect the millions of millionaires from those dirty stinking poor!

Poor people who think they deserve pensions, HA!

Also, why do we need to have huge oil companies and huge banks?

Other countries have national banks and national resource companies for at least a couple of pretty good reasons:

1- Nationalized utilities can't dodge taxes.

Talk about incentives!

That's socialism and real class warfare, don't let the Republicans fool you. We have lots of other options between here and there besides stopping services to children, the poor, the sick and the elderly.

2.7% of this country can afford to sit in their mansions and gripe about every penny of the taxes they do pay, with everyone except Charlie Sheen ignoring the fact that they have been treated like bitching rock stars from outer space for decades.

Meanwhile, the Koch brothers feel protests of their events, which include personal visits from multiple SCOTUS justices, restrict their freedoms.

And, in case you haven't noticed while you were worrying about the "freedoms" of the millions of millionaires:

Our children, the poor, the sick, and the elderly are NOT #WINNING!

Caltech Dance Show exhibits talent

JONATHAN SCHOR
Editor-in-Chief

The Caltech Dance Show was held three times over the course of two days: April 1, at 8 PM, and April 2, at both 2 PM and 8 PM. I personally attended the final showing, intrigued by what I had heard from those who had attended the previous performances, and was very pleasantly surprised by what I saw.

Perhaps I am unusual in this respect, but I have always felt that arts at Caltech, things like dance, music, and graphic design, tend to take a back seat to science. While this seems empirically true, I have been shown time and time again that this does not mean that we put on lackluster performances, filled with amateurish attempts at creative expression. First with Caltech's rendition of *The Three Musketeers*, and now with the dance show, I am utterly convinced that, although Tech students excel at science, they can be quite good at conventionally "liberal arts" activities.

The first performance of the night was by a group of graduate students, nine men and nine women, who performed to a mix of Salsa music. The dance was billed as the dream of a group of Caltech professors, discussing science in the lab before being sucked into a lively, at times passionate, dance sequence. The men and women were paired up, but switched partners at various times through intricate maneuvers, ducking under linked arms to reach the closest woman. Following the performance, one particular performer was regaled with written signs of support and particularly loud cheering by a group of graduate students in the audience, to which he smiled.

Next came an intriguing solo performance by graduate student Heather McCaig entitled "Serpentina," which combined ballet with "tribal fusion belly

dance." At the risk of sounding trite and uneducated in the nuances of ballet, I would compare the performance to something out of *Black Swan*, dark and foreboding but, perhaps because of this, utterly captivating. The movements that McCaig made, imitating a snake

from the musicals *Chicago* and *Burlesque*, ending with an alluring sequence of moves involving a chair. The self-described "fun [and] sassy" dance did not disappoint, although a shout-out that was promised to me by the pair was never delivered. Next, a group of

rap related, the girls did a good job of keeping the performance thugged-out, despite the fact that the "RUDD" sign they held at the end pretty much quashed any hopes of true gangsta spirit.

The next performance, to *Verano Porteño* by Astor Piazzolla, featured guitarist Richard Verdugo and dance instructor Marta Letelier.

The two sat on a simple set of two wooden chairs, which Letelier incorporated into her graceful movements. Though the dance was not as flashy or acrobatic as

performer in the group and the choreographer, certainly did a wonderful job of using movement to convey emotion, as did the other two undergrads performing, Nina Budaeva and Miceala Shocklee.

The second half of the dance show was even more dynamic than the first (except for the fact that two of the performances featured Ke\$ha songs).

Renee Wu made use of a long red ribbon in her dance to Michael Bubl's *Fever*, creating the illusion of swirling shapes that surrounded her as she moved, while another dance duo showcased the West Coast Swing. Particularly interesting was Pallavi Gunalan and Sara Venkatesh's performance to *Creator* by Santogold. The two pantomimed a fight, which ended with the grisly scene of Venkatesh snapping Gunalan's neck.

One of my favorite performances, partially due to the music, was entitled "Catch the Moon," and was to *Cosmic Love* by Florence and the Machine. The four dancers used what my untrained eye would term "modern ballet," or ballet set to contemporary music. The final sequence had the group passing a circular object, ostensibly the moon, down the line, with the lights fading out as the last dancer took hold.

Other dances during the second half included two group performances to pop songs (one was to Ke\$ha's *Run Devil Run* and the other was to *Blow by Ke\$ha* and *Hey Daddy* (Daddy's Home) by Usher) and one final ballet performance, based on a performance by the Sofia National Opera Orchestra.

I have to say, coming to Caltech I was not expecting to be exposed to such a vibrant (albeit small) community of singers, dancers, actors, and musicians. I'm pleased to announce, though, that performances like those at the Caltech Dance Show have given me hope that, even as Techers, we can excel at the performing arts.



From top, clockwise: Nina Budaeva and Nina Park perform a sultry rendition of music from *Burlesque*; the Ke\$ha girls strike a pose as they dance to *Blow and Hey Daddy* (Daddy's Home); K-Pop enthusiasts rejoiced as dancers performed *Hoot* by SNSD, miming shooting arrows at a bad boyfriend.

- Laainam Chaipornkaew



as it uncoils, were so fluid and seamless as to look nearly inhuman. I can honestly say that this was one of my favorite performances of the night.

The following three dances contained either only undergraduates, or a mixture of graduate students and undergrads. First, Nina Budaeva and Nina Park performed a combination of songs

grads and undergrads performed to Garry Schyman's *Praan*, first walking around each other and then forming into lines to perform coordinated dance moves. Following this, a group of girls from Ruddock House performed a hip-hop dance to *My Chick Bad* by Ludacris ft. Nicki Minaj. Though Caltech is (unfortunately) not a bastion of all things hip-hop and

some of the other performances, the simplicity of the movements, and the passion infused into them by Letelier, certainly seemed to fit quite well with the soulful melody from the guitar.

The final two performances before the intermission consisted of a rendition of *Hoot* by the Korean Pop band SNSD and a modern dance to *Send in the Clowns* by Judy Dench.

The former was a sassy rebuke of a boyfriend who couldn't keep his eyes off other women, which was certainly fun to watch. Unfortunately I can't say I understand K-Pop any better, especially considering that "Hoot" is apparently the sound people make when they "laugh/smirk and add a slight scoff to it."

The latter was certainly more somber, but was beautifully done. Junior Renee Wu, both a



Earn your degree in education in 12–18 months.

With more than 36 credential and master's degree opportunities, we're confident we have a program for you.

APU offers:

- Convenient classes at 8 Southern California locations and online.
- Programs in teaching, counseling, physical education, and administration.
- NCATE-accredited programs recognized by all 50 states and internationally.
- Resources that make transferring to APU a seamless process.

Classes start five times throughout the year. Contact us today!

Call (800) 825-5278
Click www.apu.edu/explore/education
Email graduatecenter@apu.edu



AZUSA | HIGH DESERT | INLAND EMPIRE | LOS ANGELES | MURRIETA
ORANGE COUNTY | SAN DIEGO | VENTURA COUNTY | ONLINE

Sarah surviving senior year: Physics

SARAH MARZEN
Copy Editor Emeritus

Imagine the most fun, girly Spring Break trip you possibly can. That's the Spring Break trip that I took. In order of importance, my friend and I: shopped, window shopped, gave away \$40 to San Francisco street performers, and ate way too much greasy Chinese food. When I got back to Tech, I was ready to get back down to "business".

"Business" is in quotation marks because I'm taking almost nothing this term. I was describing my third term course load to one of my friends: double HUM, communication requirement, senior physics lab-- and he asked me, "So what are you going to do?" I wondered...what was I going to do for the entire term?

A few days later, I talked to a UC Berkeley graduate student in

a statistical mechanics group. This friend of mine was trying very hard to recruit me to come to Berkeley and work in this statistical mechanics group because, apparently, many of his colleagues didn't know much physics.

"They stare at me blankly when I say that it's a phi-four theory!" he complained. I just sat there wondering, what the heck is a phi-four theory?

The term was so familiar from Ph127, but familiar just doesn't cut it in theoretical physics. (Trust me-- it is actually embarrassing that I don't know what phi-four means.) Unfortunately for me, I had fallen into the trap that my highest-achieving friends here had warned me about: it's one thing to finish problem sets and get good grades, but it's another thing entirely to really understand and remember course material.

As Dumbledore would say, "We must all face the choice between

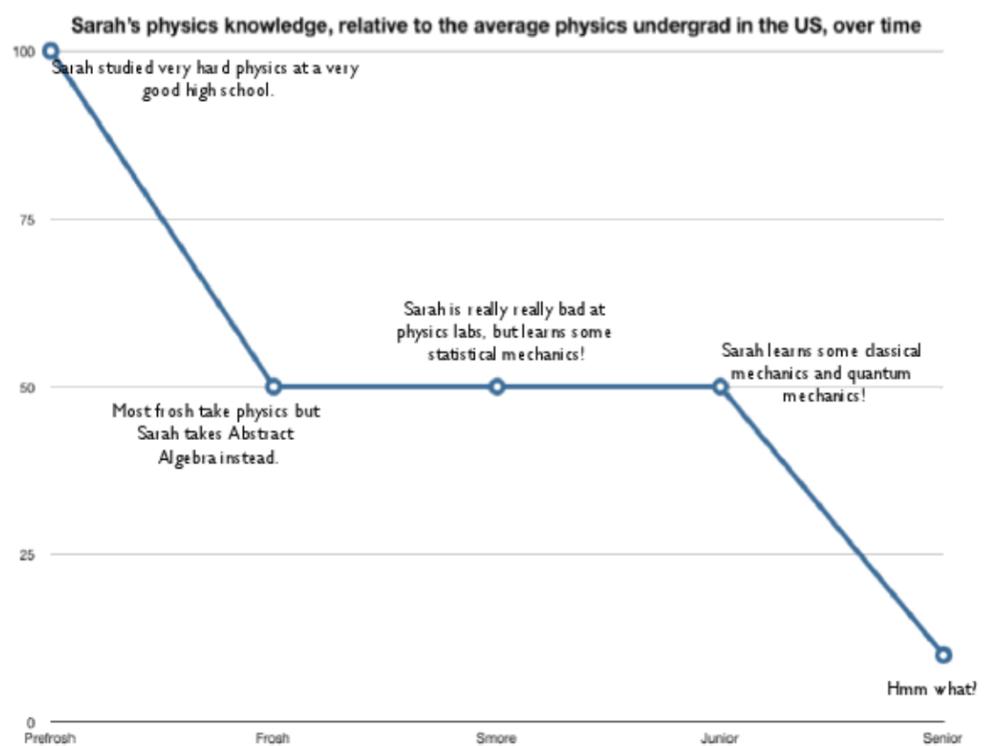
what is right and what is easy." Easy: shopping, eating good food,

socializing.

Right: re-reading

Goldenfeld. It's time that I say

good-bye to my wonderful life of senioritis.



An interview with Jorge Cham, writer of PhD Comics

HONGAN NGUYEN
Contributing Writer

I've been fortunate to be involved with a film shoot on-campus for PhD Comics for the past few weeks. I interviewed Jorge Cham, the author of PhD Comics and the co-director of the film, shortly after wrap on March 13th.

Hongan Nguyen: Which is nerdier: your comic Piled Higher and Deeper or xkcd?

Jorge Cham: xkcd

HN: Much nerdier?

JC: (Laughs) Yes!

HN: Ok. Now that we've started. Do you have any advice for aspiring comic artists?

JC: Yeah. Well, the main thing is that the internet kind of gives you a place where you can put your comics without worrying about publishers or editors or things like that, which is great. The hard part about that is that it's hard to be consistent. The most important thing if you're going to be an aspiring comic is - and I haven't been consistent lately, but try to have a regular schedule and stick to it.

HN: Alright. I guess with all this film shoot, have you been able to get comics out lately?

JC: (Laughs) No!

HN: (Laughs) No?

JC: It's been a lot busier than I expected with this film project, but at the same time, it's been a lot of fun, so I hope that my readers, once

they see some of the stuff that we're doing here, they'll forgive me not having put up any comics for a week. Laughs.

HN: Are you surprised by the kinds of people who have been helping out with this, like what they've been up to?

JC: Yeah. Everyone has been amazing, and I mean so many people are excited about this and they care about the comics and that makes me feel great and thankful and grateful.

HN: Well, I hear you tour the country giving talks about procrastination. Any

that you schedule it at a later time. You still have to do it. Do you know what I mean? If you put it off and never do it, you're just being lazy.

HN: Caltech does not encourage laziness. I can definitely tell you that.

So, you were once a grad student, too, so you have any advice for undergrads who are thinking about graduate school? Like what was that like for you?

JC: It was really great. I mean I know the comics make fun of it a little bit

the professors.

HN: Did your time as an instructor here at Caltech influence your comics at all?

JC: A little bit. I guess as a professor, I saw the side of professors a little more, so I started writing about professors more than I did before.

HN: Did it show up in Professor Smith?

JC: It did.

HN: How?

JC: Just kind of how you have all these pressures as a professor. I mean you

So, why are you at Caltech now [for the PhD Comics movie]?

JC: Well, it helped that I live about five blocks from here.

HN: I think you just gained some stalkers.

JC: (Laughs) I just really liked Caltech during my time here. I came from Stanford, but I really liked Caltech as a sort of small school. I mean it's world class research, but in a way, it's kind of the underdog. A little bit in the top tiers of academia, but it's as good as any other school. I kind of like that as well, and I thought it was fitting to this project.

HN: When will the webisodes be released?

JC: We're still thinking about that. I mean up until this weekend we weren't sure we could do it (Laughs) successfully, but now it's looking pretty good. I still don't want to give a schedule of when it'll come out, but hopefully the fall. There will be some screenings maybe or we might have a rough cut screening this June, but I think to the wider world, it'll be this fall.

HN: Are you planning to release these as short episode clips or an entire movie all at once?

JC: We're not sure yet. We're trying to see how well we can make this but it's going to be hopefully screened at other universities as a movie, and then eventually made available on the web as episodes.

HN: Oh ok. That sounds cool. Alright, well, thank you very much for this interview.

“

This is an inspirational quote that will attract readers and improve the article's aesthetic.

- Jorge Cham

”

particular advice for Caltech students? Anything different between what you would say to undergrads and graduate students?

JC: Yeah. Well, the advice that I always give people is that there is a difference between procrastination and laziness. Laziness, that's where you don't want to do it. Procrastination is you just don't want to do it now. So, if you don't do it, but you really wanted to do it, then you're just being lazy. Procrastination doesn't mean...it just means

but I mean, you meet really great people, you learn a lot, your mind expands to levels that you didn't think about before. So, I mean it's a real life changing experience I think, but it is hard, and it does take five, six, seven years, which is a long time. But yeah, talk to professors now, talk to grad students now, SURF projects - that's really good, too. And then once you're applying to grad schools, you know make sure you visit all the ones you're applying to. You talk to all

have a lot of pressures as an undergrad, as a grad student, but as a professor, you have a lot of pressures as well, so I guess you may know sometimes...professors are the way they are not because they're mean or they're evil, but they're just under a lot of pressure and a lot of demands. There's a lot of work to do. **HN:** I think the professors here will be glad to hear that. **JC:** (Laughs) Ok! Good! **HN:** So, I guess we go on to the more important stuff: the plugging part of this interview.

Can Alex Lapides jump over the moon?



Alex Lapides setting the school record in high jump (last year). In this particular picture, he is jumping over his name, not the moon. In fact, any suggestion that he can jump over the moon is untrue and irresponsible. I once saw him eat a whole bowl of CDS hummus, but that's it.

-Taken from Alex Lapides' Facebook

MARK EICHENLAUB Alumni Writer

Alex Lapides won the high jump at the SCIAC 4-Way meet at Caltech last Saturday, April 2. He defeated competitors from Pomona-Pitzer, Cal Lu, and Whittier by jumping 5.07×10^{-9} the way to the moon. Whether he will attain the full distance remains an open question, though sources close to him have noted that his next attempt will occur this week, at the Pomona-Pitzer Invitational on Saturday.

Lapides is closer than the previous statistic makes him appear.

Earth's gravitational potential decreases with height, so that Lapides' kinetic energy at takeoff was 3×10^{-7} the gravitational potential well involved in a terrestrial-lunar transit. Including the moon's gravitation favorably improves this ratio a further 4%.

In 1990, JPL mathematician Edward Delbruno pioneered the method of low-energy transfer, applying principles from chaos theory to successfully navigate the Japanese Hiten satellite from low-earth to lunar orbit despite extremely low fuel reserves.

If Lapides can merely attain low-earth orbit after his initial take-off (and he is already 7×10^{-6} of the

way), he may be able to achieve lunar orbit using small impulsive kicks generated by expelling unneeded spit or toenails.

As this method takes several months, Lapides continues his training in breath-holding.

Stephanie Wuerth won the 3000m steeplechase, taking only about 4.3 times as long as thoroughbred racehorse "Paper Junction" would have needed to cover the same distance.

Paige Logan took second place in a shot put with a throw that, assuming an optimal trajectory, had a kinetic energy approximately 4×10^{-7} the total metabolic energy available in her body, assuming the entire thing burned down to the bone.

Logan also claimed second in the discus with a throw about 10^{-3} the way to flying over Mount Wilson.

Brice Nzeukou was third in both the 100m and 200m. He attained average speeds of 2.995×10^{-8} and 2.911×10^{-8} respectively, in natural units.

Deboki Chakravarti needed only 4.43×10^{-10} millenia to secure sixth place in the women's 100m.

Juliette Becker, going roughly 4×10^{-8} the way around the Earth per stride, covered the 800m distance in about 1500 blinks

of an eye (under the unrealistic assumption that the eye blinked continuously; according to Wikipedia most adult humans would have blinked about 25 times during the race) for seventh place.

Jessica Swallow tied for second in the women's triple jump by jumping the length of 4000 typical nematodes stretched end-to-end.

Sarah Wright took third in the javelin, throwing the implement 13.3 times its own length, which is equivalent to throwing your own digestive tract a quarter mile.

Anton Bongio-Karmman finished seventh in the men's 1500m run. His Reynolds number was about 700,000.

If we assume that Jonathan Schor can be well-approximated as a quantum-mechanical point mass in a uniform potential, the stationary states would be Airy Functions, and we can estimate based on the peak of his ascent that Schor was in roughly the 10^{26} excited state of his body.

I can assure you that his legions of female fans were equally excited about the state of his body.

As far as the competition went, Schor placed under the 4 competitors from other schools, although he was the only male Caltech pole vault competitor to attain a height.

Caltech baseball loses nailbiters to La Verne

AMOL KAMAT Sports Editor

This Saturday, the Caltech baseball team hosted The University of La Verne in a doubleheader. Fresh off a loss at La Verne the day before, the Beavers came out swinging, scoring two runs in the first game, off a David Carrega double, although they ended up giving up 23 runs to La Verne in a 7-inning mercy.

The second game of the doubleheader was truly a defensive battle, with just 12 combined runs scored by each team (12-0 in La Verne's favor, also a 7-inning affair).

While the games may not have gone as swimmingly as the water polo game (okay, they lost both of their games, too, but do you see what I did there?), the atmosphere was certainly more festive.

A generous alumnus, C. Richard Johnson provided hot dogs, bratwursts, nachos, sunflower seeds, and Big League Chew for all Caltech sports being played that day (Track, Tennis, Baseball, and Water Polo). At this point, I would like to state for the record that Big League Chew is the greatest thing to happen to mankind and made my childhood infinitely better. Of course, not all share this sentiment. Grumpy graduate student Ned Perkins chuntered, "This is

probably the most unethical candy. It's teaching kids about chewing tobacco." Then, he snarfed down a couple hot dogs.

Perhaps more intriguing than Perkins' hatred for happiness are the circumstances under which these snacks were afforded.

In an e-mail circulated throughout the houses, Associate Director of Dining Services Jonathan Webster explained his rationale.

"A few weeks back I read a Tech article by one of the baseball players. He mentioned that Caltech baseball was forced to start their season off with a 'noticeable lack of pulled pork.' Of course, we can't have that. So, Blaine Matulevich you're getting your wish!"

That's right, friends, the Tech finally caused some degree of social change, which I think we can all agree is the true goal of the sports section.

More importantly, Blaine Matulevich finally did something productive.

While none of the teams actually won on Saturday, it was a nice gesture towards Caltech athletics and certainly made me feel like I attended a normal school (or maybe that's because I'm off core).

Hopefully the increased interest and emphasis placed on Caltech sports will translate into some wins.

C H A M P I O N S

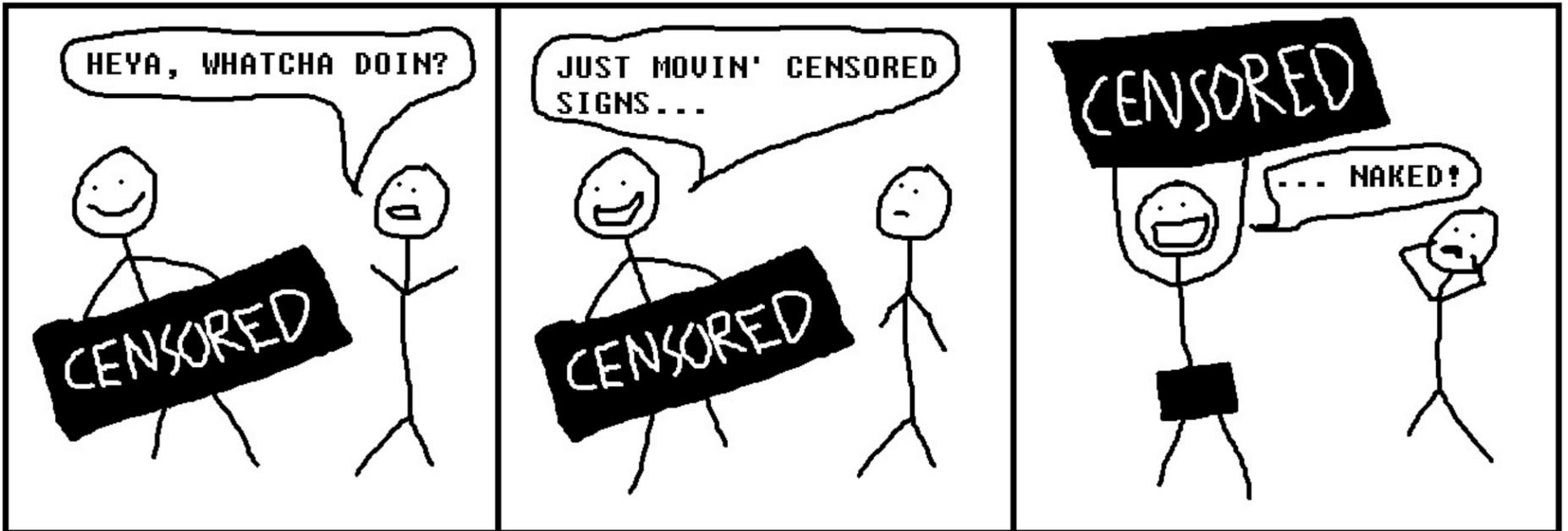


The India National Cricket Team celebrates their win in the 2011 ICC World Cup while a sad, sweaty Sri Lankan cricketer watches on, longingly.

-AFP Photo

SEXY COMIC

BY DAVID GINOLA



APPLES AND ORANGES

BY REBECCA LAWLER



The California
 Tech
 Caltech 40-58
 Pasadena, CA 91125

DON'T FREAK OUT!

The next issue of the Tech will be distributed on **Thursday, April, 14th: the first day of Prefrosh Weekend.**