



Professor Tai chosen as Prof of the Month

SANDHYA CHANDRASEKARAN
News Editor

Dr. Yu-Chong Tai is well known to the electrical engineering undergraduates as the professor of the option core class EE40, 'Introduction to Semiconductors and Sensors.' His teaching style and course structure have had a profound impact on his students, who nominated him as Professor of the Month in May.

The EE40 class Professor Tai teaches involves discussions of the underlying physics, as well as the applications, of semiconductor and sensors. This includes photoconductors, diodes, transistors, CCDs, MOS/MOSFET/MOS imagers, temperature sensors, magnetic sensors, thermoelectricity, piezoresistivity, and piezoelectrics; he is no amateur when it comes to the research of such devices.

"Yu-Chong Tai has over 12 years of experience doing micromachines and/or Micro-electro-mechanical-system (MEMS) research. His research interests include MEMS technology, microsensors, microactuators, microstructure, MEMS systems, and MEMS science. To name a few, successfully developed MEMS devices in his lab include pressure sensors, shear-stress sensors, hot-wire anemometers, magnetic actuators, microphones, microvalves, micromotors, and so on. System-level MEMS research projects then include integrated

M3 (microelectronics + microsensors + microactuators) drag-reduction smart surface, flexible smart skin for the control unmanned aerial vehicles, and microfluid delivery systems. He is also interested in MEMS sciences such as MEMS material (mechanical and thermal) properties, microfluid mechanics, and micro/nano processing issues."

"Dr. Tai built the Micromachining Laboratory at Caltech, which is a 6200 sq. ft. facility completely designed for MEMS research. This facility has a clean-room lab (2500 sq. ft.) CAD lab, and a measurement/metrology lab. It is currently supporting more than 20 researchers (mainly graduates and postdocs) with various MEMS research projects (<https://mems.caltech.edu>). Examples include microscanning mirrors, neural chips, microelectromagnetic relays, field-emission tips, etc. For the last few years, he has extensively worked on MEMS devices for active sensing and control. Successfully developed MEMS devices include flexible sensor skins, rubber-balloon actuators, etc. In addition, he also has research on integrated MEMS systems such as MEMS for delta-wing aerodynamic control, and MEMS-manuevered unmanned aerial vehicle (UAV). Since seven years



Professor Yu-Chong Tai in the Electrical Engineering department has been selected as the next Professor of the Month in recognition of his dedication to the subject material and imparting knowledge to a new generation of students.

- mems.caltech.edu

one seems to be nodding their head and following along."

Despite his time-consuming research, Professor Tai remains flexible when it comes to accommodating the needs of his students. One student elaborates, "He's also readily available by email or in his office hours, working around schedules to make sure a meeting can be scheduled."

The connections Professor Tai makes between the course content and applications to real-world problems also keep the class interesting. As one student comments, "He applies lecture material to everyday material, explaining a video camera and why glass is transparent using the material explained in class." His classes, like his research, are highly interdisciplinary. One student wrote, "It's a shame only electrical engineers take his classes; he truly is an inspiring lecturer."

As another student captured in a few concise, reflective words, "Professor

Tai, my EE40 professor, held the most animated lectures I have seen at Caltech. Whether soliciting questions or berating us with 'you should know, you should know, you should know,' he had a captivating stage presence, and we all learned extremely well from him. He was an unorthodox lecturer, but he nonetheless was amazing at bringing about understanding in the most confusing of subjects."

In this issue

NEWS

Sam Barnett bids farewell to The Tech and Need to Know **3**

OPINION

Man vs. Mannion returns! **4**

FEATURE

Clement says "adieu" to Caltech with a final review **6**

SPORTS

Womens softball team clinches first win **7**

News briefs from around the globe

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 Sam Barnett – links to full stories available at barnett.caltech.edu/news

New breast cancer drug	38% reduced risk of death – extends lives with fewer side effects [NYTIMES]
Tomato genome decoded	80% sequenced – plans to design high-yield crops with results [NATURE]
Iraqi oil production	↑ 20% this year – minimizes effect of reduced output from Iran [NYTIMES]
Job creation slows	69,000 jobs in May vs. 158,000 expected – 8.2% unemployment [CNBC]
Bank requests support	€ 19 billion to help Spain's 4 th largest bank – widespread concerns [CNBC]
Global investors worry	↓ 2.5% (S&P 500 index) – worst day for stock market of 2012 [LA TIMES]
Wildfire in New Mexico	380 square miles burned – largest in state's history – 17% contained [CNN]

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

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

Staff
Sam Barnett
Casey Handmer
Yang Hu
Jonathan Ikpeazu
Clement Lacroute
Rebecca Lawler
Mary Nguyen
Neha Samdaria
Eugene Vinitzky
Caroline Yu
Chris Zheng

Circulation Manager
Michael Paluchniak

Advisor
Richard Kipling

The Tech is published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the 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 under special circumstances. 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

Minutes for May 28, 2012. Taken by Allika Walvekar

Officers present: Diego Caporale, Pushpa Neppala, Mario Zubia, Michelle Tang, Puikui Cheng, Allika Walvekar

Officers Absent: Christian Rivas

Call to Order: 10:14

President's Report:

RA candidates are set for interviews at all the houses within the next few days.

The Deans want to increase applicants for the RA position.

Diego is going to start gathering data on why people choose or have to move off campus.

Officer's Reports:

Secretary: Updated the pictures on the Olive walk and the CRC and ARC pages on Donut.

Social Director: Found a DJ for Europarty. The music will be set up inside but projected outwards.

Western Dinner on Wed. June 6th will be changed to "Under the Sea" themed. There will be a bounce house, water slide, and various other fun water themed activities.

Treasurer: Wrote the budget for next year with the Director of Operations and President. Will send the budget for approval. The budget was changed to include Big I and ASCIT Formal.

Director of Operations: Setting up appointments with Mike Raven to work on SAC improvements.

Will continue to work with SPECTRE to serve as a liason between the club and administration.

Will be talking with DevTeam about Donut improvements. Also will be asking clubs to register soon.

V.P. of Academic Affairs (ARC Chair): Will be handling appointments to faculty board committees next weekend.

Ishan (ARC Secretary) is trying to access the ARC website to update it with new information. The ARC is going to revise the frosh guide.

Planning to have a student faculty lunch at the end of the term. Will start to plan the Student Faculty Committee.

Meeting Adjourned: 11:01 PM

A retrospective look at News Briefs over the past year

SAM BARNETT
News Correspondent

I made two requests when Sandhya asked me to write for the Tech: less than 100 words every week and no complete sentences. After all, everyone at Caltech is busy, so I just focus on what people really need to know.

Also, given our community's desire for data, I have only reported on quantifiable news rather than speculation and qualitative rhetoric.

Lastly, I frequently see the top stories dominated by tragedy and pessimism, but I wanted to instead highlight the positive events each week. I decided to sort my news "from good to bad," of course using my own subjective judgment of each event's effect on humanity, but ultimately to share my optimism about the world.

In that same spirit, I have reprinted the "best" event for each of the 36 articles I have written. I have really enjoyed writing for the Tech, if you call putting together numbers and sentence fragments each week "writing!"

Thank you so much for letting me tell you what you need to know!

Biotechnology Club to hold patent law event

STONE JIANG
Contributing Writer

Ever curious about the career opportunities open to scientific professionals outside of science and engineering?

While many Techers have plans to pursue their interests in their respective disciplines, many might also benefit from a better understanding of a field that is rapidly being populated by scientific professionals: patent law.

Mechanical and electrical engineers, particularly those with a strong industry background, are of the highest demand in this field, but professionals holding PhDs in the sciences or other engineering disciplines that work with marketable technology, such as biotechnology, pharmaceuticals or other industrial chemistry, are also strong players.

Such a degree or industry experience are not necessarily sufficient, however, as those who eventually become prominent patent attorneys end up pursuing law school at some point; at the same time, many have also succeeded in the field without doing so.

The Biotechnology Club is holding an event on June 25 at the Alumni House where 10 prominent law firms will introduce Techers to what is a new field for many.

Managers and attorneys from these firms will be attending, all of who began their careers in science or engineering technology but transitioned successfully to fulfilling a career in patent law.

This event will encompass professionals with all backgrounds, but particularly those interested in biotechnology and with backgrounds in biology or biological engineering. The primary purpose of this event is to provide Techers with the opportunity to socialize with these professionals and get advice on how to approach a career in patent law. This event is an excellent opportunity to network, and students are encouraged to bring name cards if interested. This event is open to all members of the Caltech community.

Be sure to watch the ASCIT emailing list for upcoming information, or email the Biotechnology Club for some of the invited guests or the keynote speakers.

A pamphlet will also be handed out at this event with summaries of each firm in attendance, a useful book no doubt to get an idea of the firms interested in Caltech students.

March 2011

US economy growing ↑ **3%** 2010 Real GDP (new estimate) – more exports, less imports [BEA.GOV]

April 2011

Job market improving **216,000** new hires in March – lowest unemployment since 2009 [CNN]

Progress against cancer **2** new drugs endorsed by FDA panel for rare pancreatic cancer [LA.TIMES]

Free e-book borrowing **2/3** of US libraries plan to offer e-books to Kindle owners this year [WEEK]

May 2011

Victory against terror **0** Americans harmed in final operation to kill Osama bin Laden [NY.TIMES]

Another increase in jobs **244,000** more jobs in April – however, 13.8 million still jobless [LA.TIMES]

Japan helps victims ¥ **1 million** (\$12,000) per family displaced by nuclear disaster [CNN]

Faster pain relief **49** minutes with new aspirin versus 100 minutes with regular dose [AP]

June 2011

NASA's new spacecraft \$ **3 billion** more funds for vehicle to take astronauts into deep space [CNN]

September 2011

New device for the blind **10** foot range sensor worn on wrist – first designed for video game [CNN]

October 2011

China launches space lab **1st** step towards a Chinese space station – historic moment [BLOOMBERG]

Human embryo cloned **15** years since first cloning (Dolly) – embryo produces stem cells [NATURE]

Retail spending rises ↑ **1.1%** in September – Americans buying more cars, furniture, clothes [AP]

Voting in Tunisia **1st** free election of Arab Spring reform movement that began last year [BBC]

November 2011

Anti-aging research < **5%** of cells cause major aging effects – were eliminated in mice [NATURE]

Japan's economy expands **1.5%** growth last quarter – pre-quake production levels cheered [XINHUA]

Leading Economic Index ↑ **0.9%** – largest rise in 8 months – measure of future economic activity [AP]

New shopping record \$ **52.4 billion** Black Friday weekend sales – 226 million consumers [CNN]

January 2012

Rise in employment **200,000** new US jobs last month – 6th straight month of increases [BBC]

Existing home sales rise **2%** in 2011 – another 12% increase expected in 2012 [USA.TODAY]

SOPA protests successful **2** days after website blackouts – SOPA, PIPA postponed indefinitely [WPOST]

US economic growth **2.8%** (annualized) rise in GDP in the fourth quarter of 2011 [CNBC]

February 2012

Strong employment data **243,000** new jobs last month – DJIA stocks highest since May 2008 [AFP]

Alzheimer's in mice **72** hours after taking a skin cancer drug, memory improved radically [CNN]

Single-atom transistor **1** phosphorous atom only – major advance in nanotechnology [NATURE]

Hydrogen fuel cell cars > **200** miles per gallon – US Army testing fleet of 16 vehicles [CNN]

March 2012

Protection for satellites \$ **3 million** system warns of solar storms – could save billions [REUTERS]

April 2012

Stocks gain strength ↑ **12%** rise in the S&P 500 this year – best 1st quarter since 1998 [CNN]

Scan for Alzheimer's \$ **1,600** dose of Amyvid enables doctors to detect early-stage disease [WSJ]

Deep brain stimulation ~ **2/3** of depressed patients made significantly better by treatment [CNN]

Synthetic DNA developed **95%** accurate transcription between artificial and natural DNA [NATURE]

Natural GPS in pigeons **53** neurons found that encode magnetic field strength, direction [DISCOVERY]

May 2012

HIV prevention drug **90%** reduced risk of infection with daily dose of Truvada [NY.TIMES]

Mind-controlled robot **100** electrodes allow paralyzed patients to move a robotic arm [NATURE]

SpaceX mission success **1st** private spacecraft docks at the International Space Station [LA.TIMES]

June 2012

New breast cancer drug **38%** reduced risk of death – extends lives with fewer side effects [NY.TIMES]

Man vs. Mannion: A tasteful competition

MIKHAIL SUSHKOV
Doesn't even have a BS

With its relaxing atmosphere and tastefully simple food, Polka provides a wonderful opportunity for you to experience the Eastern European culture without overextending your budget.

From the moment we walked into the restaurant I felt as if I were transferred thousands of miles to an amicable Polish apartment. The décor of the single small dining room was, in a single

component. The encompassing cabbage leaves provided a nice vegetable counterpart to the dense stuffing, and were fresh and not overcooked. The tomato sauce provided a nice touch of non-intrusive flavor.

In contrast, the Kielbasa (Polish sausage) was a let down. Kielbasa is one of the most famous dishes in Polish cuisine, so I had very high hopes for this dish. Unfortunately, its saltiness and greasiness did not allow it to live up to my expectations.

these, but only two showed up: one with sauerkraut and mushrooms, and the other with a potato and cheese blend (the waiter forgot our meat dumplings). The outside dough was excellent: the perfect amount, cooked just right. The sauerkraut pierogi were decent; the mushrooms nicely added flavor to the sauerkraut and provided good texture to the dish. My favorite was the potato/cheese pierogi, however. The stuffing was the perfect creamy mixture of cheese and potato, which melted in my mouth and went well with the outside dough. As soon as I finished my dumpling I craved for more, and did not indulge only because of the

TOM MANNION
PhD in cooking good stuff

Located in a little strip shopping center with a Laundromat, video store, and massage shop, Polka is not the easiest restaurant to find.

When I walked into Polka, I felt like I was walking into a grandmother's dining room that was decorated decades ago. The feeling is somewhat dark, but cozy and appropriate to a restaurant that deals in Polish dishes prepared home style. A sign on the wall reads "out of my mind, back in 5 minutes."

We decided to try several classic dishes, pierogies, kielbasa, golabki, and polish hunter stew.

Before the meal was served, we were given a bowl of spinach

Golabki – Meat wrapped in cabbage.

Not an easy dish to find around here, so I was happy to see it arrive. Decent dish, but it could have done with a thicker cabbage wrap and the tomato sauce was really sugary – it needed more acidity.

Kielbasa – Straightforward and unspectacular. This classic sausage was quite high in fat content and lacked the complexity of finer sausages. Speaking of polish sausage – JT European Imports in Santa Monica is the place to go.

Bigos (Polish Hunter Stew) – A huge portion of food! The stew has a bit of everything including sauerkraut, mushrooms, sausage and beef. It would be great on a cold, rainy day.



Above: The kielbasa at Polka is paired with a generous portion of veggies and starches, including potato, carrots, corn, and assorted greens.

Right: The cheese and mushroom pierogis are a crowd pleaser at Polka, a fact that was brought to light when the restaurant was featured on Food Network's Diners, Drive-ins, and Dives.

Bottom: The bigos contains a sizeable portion of sauerkraut, mushrooms, kielbasa, and beef, making it fit for any hearty Polish hunter.

-yelp.com



word, cozy. The walls were filled with Polish cultural artifacts and the windows had old-fashioned Eastern European curtains that immediately reminded me of my childhood. Our table had a fancy glass decorative lamp, and the menus were customized with a mixture of comedic and historical pictures and quotes. The owners clearly put a lot of effort into making their customers appreciate the homey atmosphere.

Our meal started with a simple spinach soup. The soup was hearty and creamy, and, although a tad bland, it was a nice warm start to the meal. We then had a salad, which was a very small and simple mix of lettuce, carrots, celery, and some sort of sweet dressing. I was not a huge fan of the sweet dressing and would have preferred something simpler, but it was a standard and reasonable way to start off the meal.

Tom and I ordered four main dishes to share: Golabki (meat cabbage rolls), Kielbasa (sausage), Bigos (sauerkraut and meat stew), and Pierogi (dumplings). The Golabki – a mixture of meat and rice wrapped in cabbage leaves, topped with tomato sauce – are a standard dish in Polish (as well as Russian!) cuisine. They did not disappoint: the filling was the perfect mixture of rice and meat, with good consistency and no overabundance of either

The Bigos – Polish hunter stew – was a stew made of sauerkraut, mushrooms, Kielbasa, and beef chunks. The sauerkraut was a bit sour and was too overcooked for my taste. The Kielbasa chunks took away from the dish due to the poor quality of the sausage. However, the beef somewhat made up for this: the chunks were very simple, yet added a good plain balance to a dish that was somewhat overpowering with its sour sauerkraut and salty sausage. Despite its faults, this entrée was a good mixture of traditional Polish foods.

The Pierogi, which we ate first, ended up being the highlight of our meal. We ordered three sets of

many dishes that remained to be eaten.

To conclude our meal, we were served small Polish chocolates filled with dark chocolate fudge. These were surprisingly delicious and were an excellent way to end our feast. After sampling a few dishes I felt completely stuffed.

I really enjoyed most of them, and despite some complaints about the sausage and sauerkraut, I would say that the experience was very positive.

It was nice to visit this small piece of Poland in LA and to sample the delicacies it had to offer, and I would recommend this to anyone looking for an authentic culinary and cultural experience.

soup. While the soup was a bit peppery, I found it quite tasty. Lightly creamed, it had carrots, potatoes, and spinach leaves, and all of the components worked well together.

Next, we received a salad.

The salad was romaine and iceberg (chopped) with shredded carrot and radish and a sweet vinaigrette.

Normally not something I would order off of the menu, but as a part of the meal, it was also pretty good.

After these starters, the real food began...

Pierogies – we ordered cheese and potato then sauerkraut and mushroom.

The potato and cheese alone would make me want to go back. Nice texture on the dough and a brilliantly creamy interior. The sauerkraut and mushroom were ok, but I did not appreciate what seemed like a canned mushroom taste.

Unfortunately, each dinner comes with potatoes, corn, and green vegetables. The mashed potatoes were hand mashed, but dry and unappealing.

The corn and green beans were straight from a can and really not good. These components detracted from the creative Polish dishes on the plate.

The final sin was the use of curly parsley – everywhere.

This garnish, basically inedible, went out of style when I was a kid (yes, a long time ago).

Last glitch regards the tables. All tables have tablecloths, but they are topped with glass. Rather than changing the table linen, they just wipe the glass. Well, curious me lifted the side of the tablecloth to look at it and was greeted by several food stains.

All in all, I would still recommend a trip to Polka. The food is unique and comforting.

With a little more attention to seasoning, and the use of fresh vegetables, this place would be a superstar.

The cheese and potato pierogies are something that I could see myself craving quite often.

Caltech Couture: The tricks of the toast

ALEX LANGERFELD
Columnist

It's the season of toasting. Toasting the end of another academic year, toasting the coming of a beautiful summer, and toasting to honor our wonderful graduating seniors!

Cheers!

I hope that there are many occasions for joyous toasting ahead of us, and in order to prepare for them I'd like to go over the basics of good toasting.

There are many styles of toasting, ranging from the boisterous "bottoms up!" (which I hesitate to even call a toast), to the five-minute long adulation from the father of the blushing bride.

Toasting goes back as far as the ancient days when the Greeks and Romans would drink to their Gods hoping for prosperity and good fortune. Friends have always toasted themselves as well, saying

"To us!" while clinking glasses. Almost every culture that drinks to celebrate has developed its own toasting tradition. For example, the Vikings would drink out of the skulls of their conquered enemies. This gave rise to the Scandinavian

Often, with a cozy enough group, toasters will clink each others' glasses before drinking. This action represents the mutual ties among the people in a group and has a very practical origin. In the Middle Ages when it was not uncommon

Traditionally, in a more formal setting, it is the prerogative of the host to make the first toast, although this tradition is not a rule set in stone. To begin a toast, it is proper to stand up and raise one's glass instead of tapping the glass with silverware.

If toasting with a meal, the first toast is usually done by the host at the very beginning to welcome the guests, and subsequent toasts are done with the dessert course. Of course, if the reason is good enough, a toast can be done at any time!

Now if you are the toastee, then while everyone else is standing and drinking in your honor, you remain seated and do not drink to yourself, unless your ego is the size of an elephant (in which case, people probably wouldn't be toasting you in the first place?). When the toast is over, you may say "thank you" and stand to make your own toast.

There really shouldn't be any recipe to follow when preparing a toast. The best toasts are the

sincere ones and those can often be expressed with a single expression!

While it is up to you what you decide to say when pronouncing a toast, here are a couple common international toasts.

Chinese: *Gan bei* (kahn-BAY)
French: *A votre santé* (ah vutruh sahn-TAY)

German: *Prost!* (PROHST)
Italian: *Salute* or *cin cin* (sah-LOO-tay; chin-CHIN)

Japanese: *Banzai* or *kampai* (BAHN-ZYE; KAHM-PYE)

Polish: *Na zdrowie* (nahz-DROH-vee-eh)

Russian: *Na zdroye* (nahz-doh-ROH-vee-eh)

Spanish: *Salud* (sah-LOOD)

The best part of a toast is the reason for it, so I'll leave you now to go off and find what your reason is. However, before I end this year's line of Caltech Couture columns, I'd like to share one of my reasons for a happy toast. It has been a long and eventful year. I can't say it's been an easy one, but I can't say it's been a devastating one either. I am grateful to the people of this community who keep this place humming because without these dynamics, we'd be going nowhere. So, here's to you Techers! Go out and accept the world and remember to enjoy every present moment!

Cheers,

Nina Budaeva



Senior Stephany Lai toasts to her stuffed animals at a fancy tea party. That's just adorable.

- Jonathan Schor

toast "Skål" since "skalle" means skull. I only hope that Caltech does not develop its own tradition of drinking out of old petri dishes and test tubes to toast for a better result in their next round of unending experiments.

to poison the drink of your enemy, drinkers would pour a bit of their wine into the others' cups to prove that no drink was poisoned. Close and trusting friends soon abandoned this and simply clinked glasses symbolically.

That's the Spirit!

Congratulations to the winners of the inaugural Caltech Alumni Association Spirit Award!

The winners of the 2012 Spirit Award are the following students who conceived and participated in the audacious "MIT Sold" prank on November 30, 2009:

Peggy Allen '11
Anthony Chong '11
Perrin Considine '11
John Forbes '10
Raymond Jimenez '13
Megan Larisch '12
Rebecca Lawler '13
Julian Panetta '10
Eugeniu Plamadeala '10

Alex Rasmussen '12
Sebastian Rojas Mata '13
Nicholas Rosa '11
Isaac Sheff '12
Stefan Skoog, SURF '08
Will Steinhardt '11
Jordan Theriot '12
Ryan Thorngren '13
Heather Widgren '10

The Caltech Alumni Association Spirit Award commemorates extraordinary activities by Caltech undergraduate students, graduate students, and/or postdoctoral scholars which best exemplify the spirit, tradition, and values of Caltech. This Award is given only when the Association finds that exceptional activities have occurred which merit this special recognition.

Sam Szufita

ACROSS

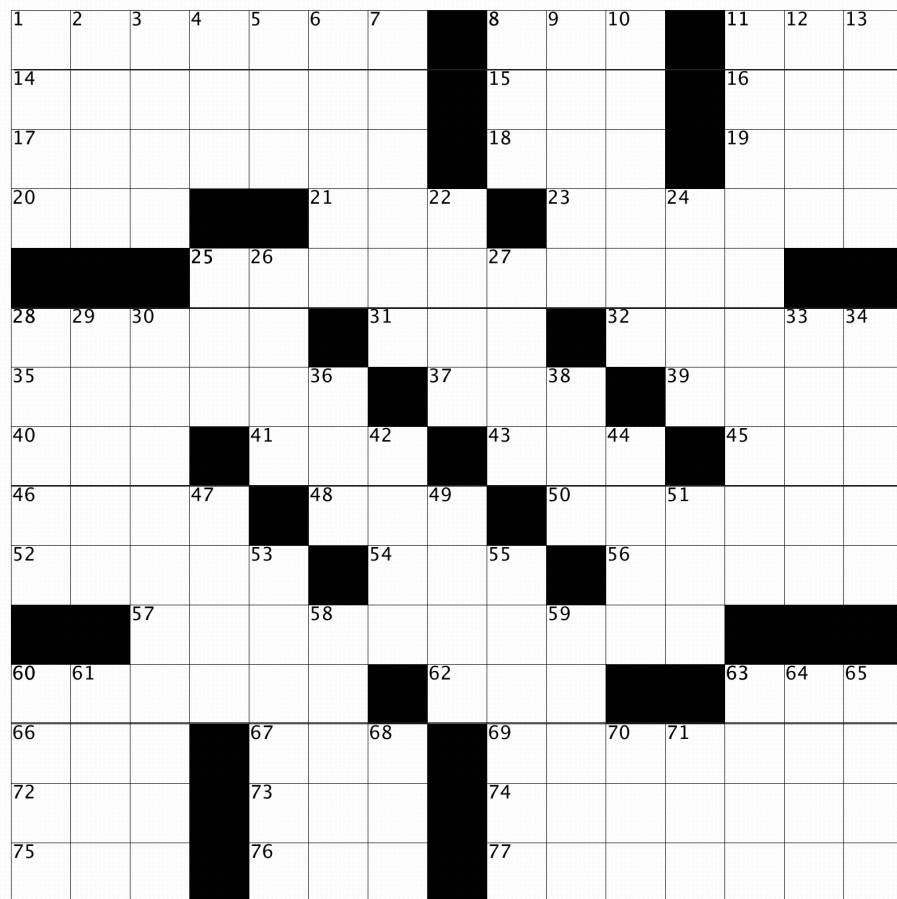
1. Unit of charge
8. Bathroom sound
11. Sun, to Fidel
14. Canadian province
15. Sound of relief
16. Hawaiian dish
17. German mathematician with a famous unproven hypothesis
18. Tallahassee to NY dir.
19. Sounds of understanding
20. Curve type
21. It's 3 hrs. ahead of PST
23. Nearly
25. With 57-across, a Zach Galifianakis quip: "I am a big fan of _____."
28. Religious groups
31. Suffix meaning more
32. Surgeon's tool
35. Hunted
37. Embarrassing slip
39. Original god of love
40. <https://www.google.com/>, e.g.
41. Lung filler
43. Sea in Madrid
45. Aggravate
46. German name
48. Was int
50. Famous collie
52. Military unit
54. What all good things must come to
56. Perpetual traveller
57. See 25-across; "Sorry, I meant _____"
60. Carry
62. Fighting assoc.
63. Young barker
66. Sight at a 43-across
67. COD or Halo

69. Crude, uncultured
72. Mafia leader
73. Time period
74. Flowed out from
75. Consumed
76. Vector type
77. Roof beams

DOWN

1. Classes taken by frosh and sophomores
2. Japanese demons
3. Native American tribe with a state named after them
4. On the _____, a fugitive
5. "You can be a sweet dream _____ beautiful nightmare" – Beyonce
6. Gold digger
7. Japanese plant art
8. Cooking utensil
9. Capital of Yemen
10. Hermit crab byproducts
11. 25-across and 57-across are an example of this
12. Sounds of surprise
13. Shopping helper
22. Not now
24. Small insect
25. Pig locale
26. Not on dry land
27. Proper
28. Growth _____
29. Mistake
30. Thin sheet used for food packaging
33. Water wheel

34. Chastised
36. "I _____ it!"
38. Buddy
42. Regrets something
44. Indian queen
47. Young horse
49. Chew on
51. Daughter's sibling
53. Like more than
55. Gardening tool
58. Acceptable, slangily
59. Natural sponge
60. Bubbly drink
61. Blockage
63. Earthen wall
64. Drug addict
65. People who went to grad school, e.g.
68. Witnessed
70. Not on
71. Low point



Clement says goodbye with eclectic music review

CLEMENT LACROUTE
Staff Writer

Well, I am told this is the Tech's last issue...for the academic year, of course. Summer break! It's here! (Is it really though?)

The problem is, I haven't written anything in two weeks. I was planning on reviewing La Rumeur's last album, *Tout Brûle Déjà*, but failed miserably; I thought I'd have something grand for this week, a nice farewell column, and here I am on a Friday night, facing that good old blank page.

What am I to do?

Here's what I can give you: notes on albums I barely listened to, and should by no means attempt to review.

Sound fair?

Bruce Springsteen – Wrecking Ball

The more I listen to the Boss's last album, the more I like it. I might be biased, though, as it features one of my favorite guitarists – Tom Morello – on a couple of tracks.

“

Who knows what songs will bring tears to my eyes, twenty years from now, reminding me of those golden days I spent in the Golden State?

”

The album is pretty dark, and deals with the current state of the US economy. But the music is powerful and bright, full of anger, passion, and hope (sometimes).

If you do buy or own this album, go ahead and read Springsteen words about Clarence Clemons, who was the E Street Band saxophone player and passed away

on June 18, 2011 – they are true and moving, and a well-deserved homage to a great musician.

Rocket Juice and the Moon

One of the many Damon Albarn projects, and this is a pretty interesting one.

It unites Albarn, Red Hot Chili Peppers bassist Flea, former Fela Kuti drummer Tony Allen, on an afro-beat/funk effort – it is hypnotic and groovy as hell.

Damon Albarn – Dr Dee

What is this? Apparently the score to an opera, written by Damon Albarn and Rufus Norris. It oscillates between melancholic pop pieces similar to his work with The Good, The Bad, and The Queen, and Gregorian chants.

Very weird, but again, I did not give it a full – or careful – listening.

Spotify

Do you know Spotify? It is a music streaming software. Spotify is great. It has all the songs in the world. For free. Or, let's say, at an incredibly low price (either ads or some monthly payment that is cheaper than any TV deal). It is great, but it doesn't replace owning the actual albums, at least for me. If I listen to music on Spotify, I always have the feeling that I am only getting a sneak peek. I can't play it in the car; I can't put it on my mp3 player; and I don't end up actually knowing albums as well as I would if I did own them. And then I write half-baked reviews for the Tech such as the ones above... So, again, Spotify is great, you should use it, but – you should also go to the record store! All right, this is all I got. I will probably barely make the 500 words mark set by the Tech editors (I hope I don't get fired...). Summer's here, almost. Do you have plans already? As for

me, I'll soon be moving abroad; I will look for a place, a daycare, a school, a dishwasher, a record player, and all sorts of things that are more or less easy to find.

And while doing so, I know I will be listening to music most of the time. Some bands will take me right back here to California, for obvious or obscure reasons, and among them are NOFX, The Flaming Lips, Gof**intye, Foster the People, the RHCP, Sublime, OFWGKTA, JS Bach, Arvo Pratt... (did I make it? Did I reach 500 words yet?)

Who knows what songs will bring tears to my eyes, twenty years from now, reminding me of those golden days I spent in the Golden State? On this cheaply poetic note, I'm well over 600 words now, so I guess I am done! I hope you enjoy your time, be it in the lab or at the beach, and I wish you a summer full of music.

Caltech women's softball club team wins



The Caltech Women's Softball Club Team won its first-ever softball game in the Burbank Adult Women's League on May 19. Any interested female Caltech undergraduate or graduate student is encouraged to come out for the team--play and practices throughout the summer. Contact Susan Ballentine (sballent@caltech.edu) for information.

Front Row (left to right): Rachel, Sarah, Kayla, Melissa, Michelle.

Back Row (left to right): Bridget, Krissie, Susan, Trip, Ken

-Ken McCue

Want a Personal Ad in the BigT?

The BigT is including personal ads in the 2011-2012 Yearbook. Ads are a great way to congratulate your friends and commemorate their big day forever!

Full Page - \$120

Half Page - \$60

Quarter Page - \$30

Contact the cltch.bigT@gmail.com

Find more information on the BigT page on Donut

ADS ARE DUE BY JUNE 15th



