



Caltech Health Fair gears up for 2011 session

CAROLINE YU
Contributing Writer

The Caltech Premed Association is holding its second annual health fair Thursday, May 19, from 12:00-1:00 PM on San Pasqual Walk.

Led by sophomore Catherine Xie, this year's health fair features demonstrations and representatives from a wide range of organizations and clubs. Xie envisioned a "student health fair organized by students for Caltech students to increase Caltech students' awareness on a variety of significant and readily applicable physical and mental health topics." Notably, two residents, an internist, an OB-GYN, and a sleep technician from Huntington Hospital will be attending the fair. Other organizations such as the National Alliance for the Mentally Ill (NAMI), the Counseling Center, and the Caltech Women's Center will also be represented.

The purpose of the fair is to raise awareness about health related issues, as well as draw attention to the number of health services that are readily available.

The fair also encourages students to exercise by offering demonstrations in a number of sports and activities. For example, the Bollywood Dance Crew, Jose the yoga instructor, and the Alpine club are just a few of the



Last year's Health Fair offered many of the exhibits that will be available this year, including massages and health demonstrations.

- Steph Kwan

clubs performing. Other Caltech organizations such as the Health Advocates, Pre-dental Association, and the Caltech Y Outdoors will also be present, to offer basic health tips. The Jazz Band will be performing, creating a relaxing ambiance.

There are also incentives for the casual onlooker to attend. There will be free food, a health jeopardy game, and giveaways. Prizes include a massage chair, iTunes gift cards, and other freebies. Several professional masseuses will be offering free massages to winners of Health Jeopardy. The fair is sponsored by ASCIT, Counseling

Center, Graduate Office, Human Resources, Student Affairs, the Caltech Y, Caltech Premed Association, and Aetna Health. Under the guidance of the Caltech Y staff and other health experts, a group of students coordinated the logistics, volunteers, promotions, funding, correspondence with groups and entertainment.

Compared to last year's fair, Xie said that this year's fair was larger, with "many more groups from off campus and also students participating... The increased participation should give a wider variety and broader view to students about how leading a healthier lifestyle can be made through easy, enjoyable and painless changes."

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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

Japan helps victims	¥ 1 million (\$12,000) per family displaced by nuclear disaster	[CNN]
Obesity gene discovered	1/10 of adults suffer from obesity - British team finds key gene	[REUTERS]
Solar powered airplane	1st international flight completed - average speed is only 44 mph	[REUTERS]
Bees stolen in Scotland	£ 2 million (\$3 million) neuroscience research impeded by theft	[REUTERS]
Severe storm damage	> 10,000 buildings destroyed by tornados - over \$2 billion in losses	[CNN]
Attacks against Israel	13 Israeli soldiers wounded by rioters on nation's independence day	[AP]
Guatemala massacre	27 farmers decapitated in region used by Mexican drug cartels	[LA TIMES]

Please join a selection of Caltech's Chamber Musicians on Sunday, May 22 in Dabney Lounge for an afternoon of music appreciation. Reception to follow.

See the full program at:

http://www.music-theater-art.caltech.edu/chamber_music/index.html

The California Tech

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ASCIT minutes

ASCIT Board of Directors Meeting – Minutes by Laura Santoso

May 1, 2011

Officers present: Chris Hallacy, Laura Conwill, Diego Caporale, Mario Zubia (late), Prakriti Gaba, Laura Santoso

Officers absent: Margaret Chiu

President's Report:

1. Mental Health Task Force: Hallacy and LC working with Anneila about the MHTE, she supports the idea of boosetering the UCC system so that we don't have to hire new ACs/RAs that will take up rooms

2. Other: See Discussion on club funding, art house funding

Officer's Reports:

1. VP of Academic Affairs (ARC Chair):

- ARC events: SFL on May 4, ASCIT teaching awards interviews/selection May 7 and ceremony May 27 at the ath, meeting with the deans May 10
- Academic Socials: Working with the month on Professor of the Month receptions and option teas for next school year
- Teaching: There will likely be a teaching resource on campus next fall
- Course Concerns: Working on a better system to deal with course concerns

2. VP of Non-Academic Affairs (IHC Chair)

- Area Coordinators: Have had two interviews so far with two more coming up, they have been going well and Tom Mannion will work with us
- Student Faculty Committees: Sign ups around May 11, interviews May 21
- RF List: IHC reviewing the RF list, the policy is good and they will work on items on it next
- Housing Policies: Deciding what to do about the other policies on the list of seven that have not been dealt with yet

3. Director of Operations:

- Yearbooks: Room in the SAC is now designated for yearbooks, needs to get InDesign; talking to companies to decide which we will publish with
- Tech Cart: Going to see if we can use the Tech's cart to deliver ASCIT things too
- Club Funding: Emails will be sent this week.

4. Treasurer:

- Event Funding: Proposal form is in progress.
- Endowment: We have \$70k in reserves before fees from the next two terms come in so it will probably be safe to move about \$40k into the endowment
- Other: See discussion about club funding

5. Social Director:

- Movie Night: Looking into doing a movie night at the pool with a barbeque. Will need to get a large tarp, look into lifeguards, and see where funding will come from

6. Secretary:

- SFC: Looking to see if IHC is interested in updates from the SFCs as well
- Olive Walk Board: New posts will go up this week.

Discussion

1. Club Funding: Looking into moving more money to club funding. Major points made:

- Much more clubs applied for funding this year
- We have always had to cut down money in the past
- We have some extra money in the bank so we might as well use it
- Side Note: The current club funding schedule is inefficient because we decide the budget before we know how many clubs will apply; we will move club registration before we determine the budget next year
- Diego motions to move \$3k to the club funding budget, Mario seconds. VOTE: Approved (4-1-0).

2. Election Cycle: The current election cycle for ASCIT and other committees is not ideal. Major points made:

- ASCIT elections should happen after house elections. Ex: Have ASCIT elections the middle of third term. The rest of the year will be a lame duck period for the new officers so that they can become accustomed to their jobs while the old BoD primarily does the work.
 - This will help Director of Ops because the big responsibilities (club funding, club fair at PFW) will be at the tail end of the job instead of at the beginning
 - The IHC chair will be in a weird place, he/she should change around when the house presidents change
- Will look to see what other colleges do to transition around rush

Science updates from Caltech Today

Caltech scientists develop new way to process metallic glass

MARCUS WOO
Caltech Science Writer

PASADENA, Calif.—Stronger than steel or titanium—and just as tough—metallic glass is an ideal material for everything from cell-phone cases to aircraft parts. Now, researchers at the California Institute of Technology (Caltech) have developed a new technique that allows them to make metallic-glass parts utilizing the same inexpensive processes used to produce plastic parts.

With this new method, they can heat a piece of metallic glass at a rate of a million degrees per second and then mold it into any shape in just a few milliseconds.

“We’ve redefined how you process metals,” says William Johnson, the Ruben F. and Donna Mettler Professor of Engineering and Applied Science. “This is a paradigm shift in metallurgy.” Johnson leads a team of researchers who are publishing their findings in the May 13 issue of the journal *Science*.

“We’ve taken the economics of plastic manufacturing and applied it to a metal with superior engineering properties,” he says. “We end up with inexpensive, high-performance, precision net-shape parts made in the same way plastic parts are made—but made of a metal that’s 20 times stronger and stiffer than plastic.” A net-shape part is a part that has acquired its final shape.

Metallic glasses, which were first discovered at Caltech in 1960

and later produced in bulk form by Johnson’s group in the early 1990s, are not transparent like window glass. Rather, they are metals with the disordered atomic structure of glass. While common glasses are generally strong, hard, and resistant to permanent deformation, they tend to easily crack or shatter. Metals tend to be

atoms have had enough time to form crystals.

By avoiding crystallization, the material keeps its amorphous structure, which is what makes it strong.

Common window glass and certain plastics take from minutes to hours—or longer—to crystallize in this molten state, providing

As a result, the molds have to be frequently replaced, making the process rather expensive. Furthermore, at 1,000 degrees C, the liquid is so fluid that it tends to splash and break up, creating parts with flow defects.

If the solid metallic glass is heated to about 500–600 degrees C, it reaches the same fluidity that liquid plastic needs to have when it’s processed.

But it takes time for heat to spread through a metallic glass, and by the time the material reaches the proper temperature throughout, it has already crystallized.

So the researchers tried a new strategy: to heat and process the metallic glass extremely quickly. Johnson’s team

discovered that, if they were fast enough, they could heat the metallic glass to a liquid state that’s fluid enough to be injected into a mold and allowed to freeze—all before it could crystallize.

To heat the material uniformly and rapidly, they used a technique called ohmic heating. The researchers fired a short and intense pulse of electrical current to deliver an energy surpassing 1,000 joules in about 1 millisecond—about one megawatt of power—to heat a small rod of the metallic glass.

The current pulse heats the entire rod—which was 4 millimeters in diameter and 2 centimeters long—at a rate of a million degrees per second.

“We uniformly heat the glass at least a thousand times faster than anyone has before,” Johnson says. Taking only about half a millisecond to reach the right temperature, the now-softened glass could be injected into a mold and cooled—all in milliseconds. To demonstrate the new method, the researchers heated a metallic-glass rod to about 550 degrees C and then shaped it into a toroid in less than 40 milliseconds. Despite being formed in open air, the molded toroid is free of flow defects and oxidation. In addition, this process allows researchers to study these materials in their molten states, which was never before possible.

For example, by heating the material before it can crystallize, researchers can examine the crystallization process itself on millisecond time scales. The new technique, called rapid discharge forming, has been patented and is being developed for commercialization, Johnson says. In 2010, he and his colleagues started a company, Glassmetal Technology, to commercialize novel metallic-glass alloys using this kind of plastic-forming technology.

The other authors on the *Science* paper, “Beating crystallization in glass-forming metals by millisecond heating and processing,” are Caltech’s Georg Kaltenboeck, Marios D. Demetriou, Joseph P. Schramm, Xiao Liu, Konrad Samwer (a visiting associate from the University of Gottingen, Germany), C. Paul Kim, and Douglas C. Hofmann. This research benefited from support by the II-VI Foundation.

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We’ve redefined how you process metals...
This is a paradigm shift in metallurgy.

- William Johnson

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tough materials that resist cracking and brittle fracture—but they have limited strength. Metallic glasses, Johnson says, have an exceptional combination of both the strength associated with glass and the toughness of metals.

To make useful parts from a metallic glass, you need to heat the material until it reaches its glass-transition phase, at about 500–600 degrees C.

The material softens and becomes a thick liquid that can be molded and shaped. In this liquid state, the atoms tend to spontaneously arrange themselves to form crystals. Solid glass is formed when the molten material refreezes into place before its

ample time for them to be molded, shaped, cooled, and solidified. Metallic glasses, however, crystallize almost immediately once they are heated to the thick-liquid state. Avoiding this rapid crystallization is the main challenge in making metallic-glass parts.

Previously, metallic-glass parts were produced by heating the metal alloy above the melting point of the crystalline phase—typically over 1,000 degrees C.

Then, the molten metal is cast into a steel mold, where it cools before crystallizing. But problems arise because the steel molds are usually designed to withstand temperatures of only around 600 degrees C.

You’re Invited...To a Caltech Picnic

When: Saturday, May 21st, 11 AM

Where: Huntington Botanical Gardens

Join other students, faculty, and staff for lunch at the Huntington and then stay for the day to explore the renowned Huntington Library, Art Collections, and Botanical Gardens. Don’t miss out on this wonderful opportunity to interact with others outside of the campus environment, and to experience all the Huntington has to offer.

Choose from a variety of salads or sandwiches along with chips, fruit, house baked cookies and a beverage when you sign up. A limited number of spaces are available - Undergraduate Students and Graduate Students and Post Docs may sign up for themselves and a guest as space permits. Sign up beginning this Friday, May 6th at 10:30 AM at the Caltech Y (the \$15 fee is required when you sign up).

Techers continue to stand by Ditch Day

PERRIN CONSIDINE
Contributing Writer

These past two terms, a dingus that goes by the moniker Ditchday Sux (ditchdaysux@yahoo.com) has done something equivalent to anonymously waving his dingle at the entire school. It's not something which causes permanent harm, but it's rather annoying to see it happen.

Ditchday Sux-- who anonymously spams each of the eight house email lists the week

"Fakes" are clearly not a mean trick played on poor, gullible underclassmen. So maybe the resentment is about ditch day itself. Or more generally, the Caltech social structure.

So let's assume most campus traditions do suck. It's true: the house system is not perfect. Luckily, one can elect out of these. One can also send anonymous emails that attempt to sabotage the coordinated efforts of the senior class to create an experience which can be found at no other school.

So does this mean ditch day is ruined? Hell, no. The underclassmen know we have something awesome in store for them.

Now to the background part of this article:

There is much informed speculation as to the identity of Ditchday Sux, who is known down to house affiliation, graduation year, and place of residence. I've even heard a specific name, but the details are unimportant. (One disgruntled senior doesn't reflect on the house. He has to be placed somewhere--that's what rotation does.)

Ditchday Sux is also not the first to anonymously incite flamewars.

These past two years "An Upperclassman" emailed all the rotating prefrosh with stereotypical and superficial information about the eight houses. In February 2010 "Beaver Fever" (different sender) sent an email to each of the houses asking "What do you think of Flems wearing red at graduation?" and incited 76 replies in the next few hours.

And last year I wrote an anonymous editorial for The California Tech criticizing that same paper's pitiful coverage of the resignation of Angela Wood, a premed advisor. I worried that the person who would most be criticized by my editorial was also reading my application to study abroad that year. This last instance I feel worst about, because it conflicted with my own idea of journalistic integrity.

Anyway, when we remember ditch day five years from now, we will surely remember the positive things we created, rather than the inexplicable behavior of a disgruntled individual.

Gogogo!

SARAH MARZEN
Copy Editor Emeritus

Dear DitchdaySux,

I guess that everyone else is either too nice to say this to you or so lacking in common courtesy that they actually approve of your actions. I'm not that great at telling people that they are acting like assholes, but here's my best attempt.

It's okay if you think that Ditch Day is a silly tradition. It's okay if you think that seniors spend way too much time and money on something that doesn't matter. It's more than fine to voice this opinion without anonymity loudly in whatever way you want. In

spend many hours discussing the likelihood that Ditch Day will be Wednesday or Friday or Tuesday or Thursday, sometimes based on histograms with 30+ years worth of data.

Sure, you may think that these conversations or feelings are silly and therefore ignorable, but that justification doesn't make you any less of an ass.

You basically flipped off seniors that are working day and night on Ditch Day.

Some of those seniors are probably your friends, or at least people that you respect, if that matters to you.

Perhaps you believe that as an anonymous troll, you are invincible. You are not invincible.

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Ditchday Sux has done something equivalent to anonymously waving his dingle at the entire school. It's not something which causes permanent harm, but it's rather annoying to see it happen.

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before an impending campus-wide fake ditch day-- has not explicitly set forth his aims, but appears to have the purpose of either "ruining ditch day" or the well-meant intention of informing underclassmen when fake stacks will occur, so that they will not face lethal amounts of disappointment when they find it is not actually "real ditch day." Either way, Sux appears to be both misguided and ineffectual.

If the aim is to inform underclassmen of whether they should or should not wake up, he clearly hasn't thought this through. Fake stacks are not torture, but optional, often pleasant diversions. One always has the option of rolling over and going back to sleep. Or even better, living off-campus.

That will sure do a lot.

Yes, when I initially read Sux's email I thought of the hours of sleep I'd lost planning the fake; I thought of the great efforts of my classmates, too; I thought of the thrill we hoped to provide underclassmen. I was upset. (You succeeded! yayyy) Then I realized: your immaturity matters little.

Yes, "Ditchday Sux," it disappoints me that your mislaid conception of doing good (I assume you have good intentions: is this wrong?) is to belittle the work of others. I also know that those who know your identity are technically obligated to turn you in for continual violations of the honor code. I won't press that last point, however.

“

Some social circles spend many hours discussing the likelihood that Ditch Day will be Wednesday or Friday or Tuesday or Thursday, sometimes based on histograms with 30+ years worth of data.

”

fact, many of the seniors that are stacking might agree with you to some extent.

Maybe we shouldn't be spending upwards of \$500 out of our own pockets or pulling all-nighter after all-nighter for Ditch Day.

However, it is not okay to reveal the date of fake Ditch Day to underclassmen. Part of Ditch Day's appeal is its hype.

Many people enjoy Ditch Day more because of the secrecy that surrounds it. Some social circles

There are always consequences to your actions, and that's about all I'll say about that.

Please don't lessen the fun of Ditch Day for the seniors that have spent a year planning their stack or for the underclassmen that look forward to that annual one-day break from reality.

Thanks,
Sarah

A letter to ASCIT by Mikhael Malako Medved III

By some standards, this year's ASCIT formal was a great success. While there were some complaints about the DJ's confusion about what actually constituted mixing two songs together (as in, playing one song, pausing, playing another song, and then returning to the original), the length of time the students were stuck at the dock, and some problems with drinks, overall almost every response has been positive.

On top of this, the formal ran about 5,000 dollars cheaper than previous formals

and managed to attract over twice the number of students than previous formals. Before anything else, congratulations to ASCIT on doing a good job running the formal. The ticket prices were in line with what students desired in

a survey. The students who went were pleased: not a single dour face is to be found in the photos. Tickets were so sought after that people managed to start scalping them. Yet, a phrase from this immediately

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If a congressman were to...declare that he wanted to subsidize...high school prom, he would...be laughed off. It should seem just as silly now.

”

jumps out. The students who went. Clearly, there was more interest than there were available spaces. To the tune of 30,000 dollars, a third of the student body was able to spend a happy night dancing on a boat. Yet, what of the other students? An

event was held where two thirds of the student body inherently could not go. Considering that 15,000 of these dollars came out of ASCIT dues, I myself unknowingly put down fifteen dollars so that

someone else could have a repeat of their high school prom.

Yes, there is a limit to the number of students that any amount of money can be distributed among and someone will

always come out dissatisfied but the disparity here is fairly extreme: 350 to 600. Of course, the same logic can be applied to other things ASCIT does such as sponsoring students to attend lecture series or distributing club funding, but the

difference is in the level of frivolity. If the money is going to be spent so that students can have fun, why not spend it in a way that does not inherently limit the number of students who can attend?

Throw a concert. Make Big-I even crazier than it was.

Sponsor a party with another college.

There certainly was a better way to spend such a large sum and perhaps surveying the students to see how they wanted it spent, as I'm sure ASCIT is now planning on doing, would have ensured that the money was spent in a way that was enjoyable for everyone.

There are certainly more ideas than just the ones I mentioned.

As I've said before, the formal was a success by its standards but these are not standards we are tied to. We don't need to consider spending 15,000 dollars of student funds a success.

We don't need to consider getting only a third of the student

body there a success. We do not even necessarily need to have a formal. Yes, a formal is fun. If enough students want one, then of course there should be one.

However, there should not be a formal in which the students attending it are being subsidized by the other two-thirds of the students. If a congressman were to stand up at his podium and declare that he wanted to subsidize the glorious tradition of high school prom, he would (hopefully) be laughed off.

It should seem just as silly now.

Of course no one wants to pay 75 dollars for a few hours aboard a boat, but that is the price of exclusivity.

Good job ASCIT, by the standards of the previous formals you did fantastic work. Next time, keep in mind that there are better ways to spend my money on someone else.

Sincerely,
Mikhael Malako Medved the III

Cameron Carpenter awes Los Angeles

CASEY HANDMER
Contributing Writer

When one imagines feverish controversies in classical music, it's almost too tempting to picture Beethoven caught "in flagrante delicto" with one of his students, a snuff box full of suspicious oriental powders and a lewd portrait on hand. While these allegations remain unproven, controversies do indeed exist, and many a distinguished gentleman's toupee is set askew in vociferous argument, normally about the merits of authentic performance.

It was my supreme pleasure to spend an evening last Sunday listening to one of the largest controversies in the classical music world. Whereas advocates of authentic performance everywhere get excited by the prospect of paying unauthentic sums of money to listen to music played poorly on authentically imperfect instruments by authentically untrained musicians, the concert I attended was the complete opposite.

Cameron Carpenter, with just a hint of sequins, walked onto the stage of the cavernous and dimly lit Walt Disney concert hall, acknowledged the audience, and sat at the remote organ console placed right on the edge of the stage. Four rows of keyboards and thousands of switches were arrayed before him, and as the echoes of applause died down, he got right into it.

The instrument in the Walt Disney hall is new, well maintained, and quite extraordinary at "only" 109 ranks. I can state with utter confidence that it has never before been played in quite this manner. In this, his LA debut, he opened with a grand yet considered Bach Toccata and Fugue in F-sharp major. Bach wrote it in F-major, but playing music in the key in which it is written is for musicians who don't know how to transpose.

It was a subtle yet clear break from generations of organists who, with very few exceptions, have built a towering edifice of traditional and conservative interpretation.

Cameron Carpenter, already famed amongst organ enthusiasts despite a career of less than five years, has built a solid audience and following for his style of performance, through both a substantial following on youtube and his indulgence of members of the public. On Sunday he gave a pre-concert interview and lecture, played some stuff on the piano, and

answered many questions. As the buzzers rang he excused himself and ran back stage to get ready to perform - something few if any members of the audience had ever seen before.

By this stage the concert was in full swing.

As is his custom, he announced the program from the console on stage, providing a few scant hints at the workings of his eccentric and eclectic musical mind. Next up was the first of two pieces of Brahms on the program - here the prelude and fugue in g-minor, expertly deconstructed

and rebuilt. This was followed by a piece of Carpenter's own composition, the Serenade and Fugue on B A C H, which was kaleidoscopic in structure, and naturally used every stop on the organ (though not all at once).

Before his next piece, he gave an introduction. Cesar Franck

interpreters were using the full dynamic range of the organs available at that time. He said that organ building had come a long

way since and that the original registrations often resulted in muddy or indistinct music, in which the structural filigree of the music could be lost.

Therefore, while keeping the notes, "...we've dispensed with the rest". This rendition, too, was one of the most clear performances of demonstrated facility with the specialised organ technique of 'thumbing down' to play on all four keyboards and the foot pedals simultaneously.

With one final blast of the organ, including the deepest 32 foot pipe, we took a much needed break for intermission.

course we all filed back in and took our seats. Cameron walked back out on stage to gasps, mainly from middle-aged ladies in the front row, as he had changed into black sequined tights, a black mesh shirt and white glittery organ shoes. He took a seat at the console and promptly began the second half by playing the Brahms Academic Festival Overture. Earlier he had implied that writing this piece was a substantial factor in Brahms' demise, and in listening to it, I could see why. The penultimate offering for the evening was a transcription of Bach's Chaconne in d-minor, with a substantial nod to Busoni. Within a few notes of the beginning he had to stop. Turning around, he said "It's almost like the organ just said 'you want me to do WHAT?'" prompting giggles from the same middle-aged ladies. Turning back to it he flicked about a hundred switches in some inscrutable order, tested one of the swell pedals, then began again. The difference was obvious and within seconds we were swept into a whirling maelstrom of chords and grinding counterpoint like only Bach can write, reinterpreted and revealed through the new medium of the pipe organ.

All too soon Cameron began his final piece: a transcription of the finale of Mahler's fifth symphony. Though he wrote it at 15 he had been unable to play it in any sensible way until quite recently due to the extreme technical difficulty of channeling Mahler's monumental writing for more than a hundred instruments through just ten fingers and two feet.

Like the rest of the program, he played from memory, once again revealing a fusion of solid musical understanding and a slight tendency to iconoclasm. Noticeably, it neither saturated nor sagged, common pitfalls of transcription, but rather rolled steadily and inexorably from one musical epiphany to the next. In a state of shock and surprise we, as one, relaxed into our seats for at least a few nanoseconds before leaping to our feet in rapturous applause.

Cameron took five curtain calls and played one encore, and in due course we spilled out into the street, both ponderous and chatty with complete strangers. Every person in the hall that night looks forward with interest to the next time Cameron Carpenter comes to perform here.

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Far from the stuffy type of classical musician, Cameron Carpenter adds a modern flair.
- irom.wordpress.com



Wearing something a little different than the traditional concert attire, Cameron Carpenter is an impressive spectacle.
- cbsnews.com

was an organist at Sainte-Clotilde in Paris in the latter half of the 19th century, and at that time its organ was state-of-the-art. Franck notated registration, or sound combinations, meticulously. Cameron explained that was because he wanted to ensure his

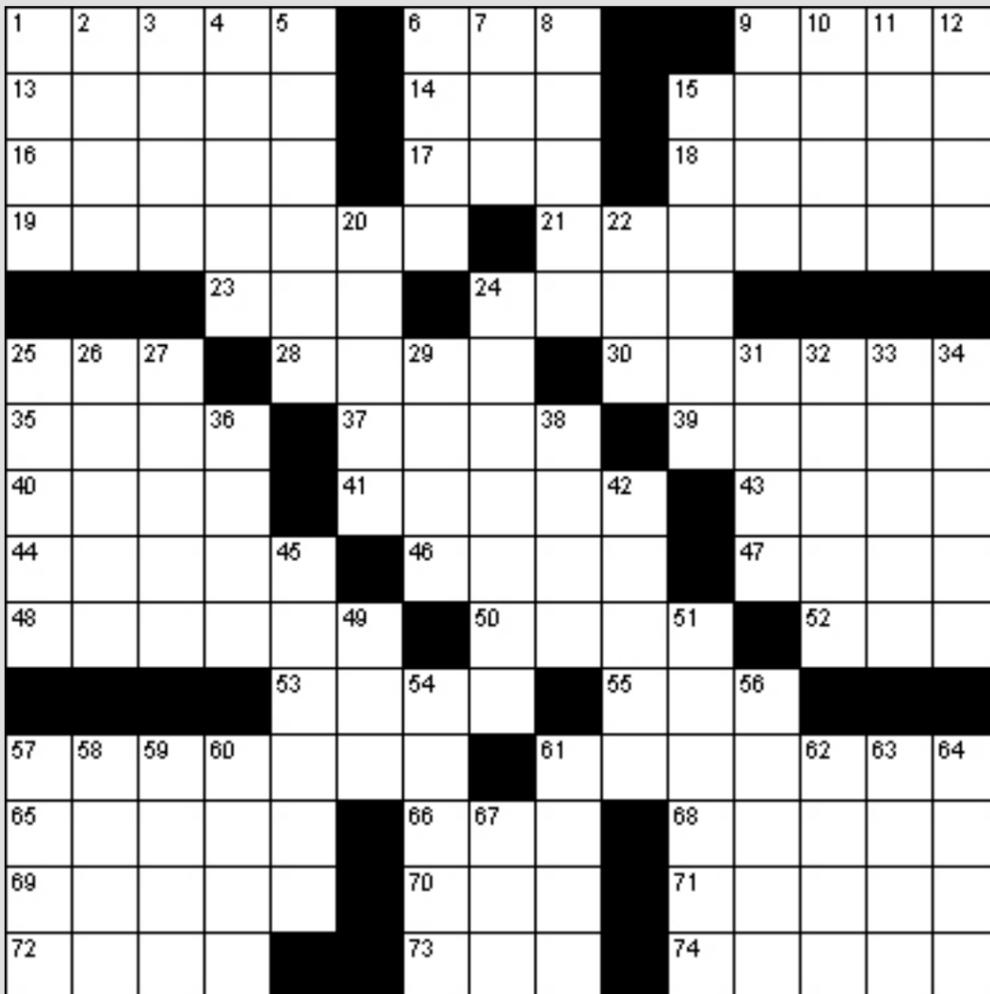
challenging French romantic organ repertoire I've ever heard.

Having now warmed up the audience and the instrument, Cameron made good on his assertion that organists must be as technically accomplished as their concert pianist counterparts

It is sometimes said that in the playing of a pipe organ, one knows the majesty of god, and in the silencing of a pipe organ, one knows the mercy of god. There was, however, quite a buzz amongst the few thousand people who had survived the first half, and in due

curtain calls and played one encore, and in due course we spilled out into the street, both ponderous and chatty with complete strangers. Every person in the hall that night looks forward with interest to the next time Cameron Carpenter comes to perform here.

Today's Puzzle: Crossword



Across

- 1. Jeer
- 6. Part of a circle
- 9. Stop
- 13. Coconut meat
- 14. Exclude
- 15. Court panelist
- 16. Help
- 17. Oculus
- 18. Herb with aromatic seeds
- 19. Associated
- 21. Prescribe
- 23. Appearing bloodshot
- 24. Traditional music
- 25. First woman
- 28. Travel by horse
- 30. Scaling device
- 35. Hobble
- 37. Layer of paint
- 39. Appeared with Bogart in The Maltese Falcon, Peter _____
- 40. European river
- 41. Tally
- 43. Temporary provision of money
- 44. Office worker

46. Reign

- 47. Misplace
- 48. Plaid design
- 50. Genuine
- 52. Church bench
- 53. Gown
- 55. Rend
- 57. Environmental condition
- 61. Consign
- 65. Automaton
- 66. Epoch
- 68. The Little Bear, Ursa _____
- 69. Develop
- 70. Pelt
- 71. Excessive
- 72. Outdo
- 73. Hankering
- 74. Wading bird

Down

- 1. Indication of previous damage
- 2. Inlet
- 3. Gemstone
- 4. Mendicant
- 5. Waver
- 6. Not up and about
- 7. Beam
- 8. System of beliefs
- 9. Search and pursue
- 10. Melody for solo voice
- 11. Disorientated

- 12. Large plant
- 15. Canine mammal
- 20. Decree
- 22. Unwell
- 24. Characteristic
- 25. Choose
- 26. House
- 27. Glowing fragment of coal
- 29. Threshold
- 31. Child's plaything
- 32. Wilt
- 33. Delete
- 34. Regenerate
- 36. Saucy
- 38. Story
- 42. Acquire knowledge
- 45. Martial art
- 49. Negation of a word
- 51. Paper used to test acid or alkali
- 54. Burly
- 56. Produced from a photographic negative
- 57. Crustacean
- 58. Traditional knowledge
- 59. Long-billed bird
- 60. The greatest number
- 61. Acquire by effort or action
- 62. Release a fastening
- 63. Rancid
- 64. Journey
- 67. Regret

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

Answers: *Last week's sudoku from puzzle choice.com*

7	1	3	8	9	2	4	6	5
5	8	4	7	6	3	9	2	1
2	9	6	4	5	1	3	7	8
6	2	9	5	1	4	8	3	7
1	4	7	3	8	6	5	9	2
8	3	5	9	2	7	6	1	4
4	6	1	2	3	5	7	8	9
3	5	8	1	7	9	2	4	6
9	7	2	6	4	8	1	5	3

ASCIT Elections

Signups for Off-Campus BoC Rep and Senior Class Co-Presidents are open until Friday at 5PM. Elections for the position will be held on Monday May 22nd from 10AM until Midnight.

The elections will be held using the instant runoff procedure. Questions should be directed to reviewchair@donut.caltech.edu.

Off-Campus BoC Rep

This position is open to anyone who wants it. This is a normal BoC Rep position.

Only people who didn't vote in their house elections or who aren't house affiliated may vote.

Senior Class Co-Presidents

This position is open any students who are graduating at the end of next year. This position is run for as pairs. Responsibilities include planning Ditch Day and finding a graduation speaker.

Questions should be sent to the current Co-Presidents Perrin Considine perrin@caltech.edu and Paul Fleiner pfleiner@caltech.edu.

Only students graduating at the end of next year are eligible to vote.

Caltech Athletics gets former Olympian

PASADENA, Calif. – Betsy Mitchell has been appointed director of athletics, recreation and physical education at the California Institute of Technology (Caltech), effective July 2011.

The former Olympic gold medalist and world record holder becomes Caltech's first full-time female director of athletics and recreation.

Mitchell permanently takes on the role that Julie Levesque has served at the on an interim basis since June 2010.

Prior to this appointment, Mitchell served as the director of athletics and recreation at Allegheny College in Pennsylvania from 2006 through March 2011.

Mitchell has also worked as the swimming and diving head coach at Dartmouth College in New Hampshire, instructor in the sports management program at Notre Dame College of Ohio, and director of athletics at Laurel School for Girls

in Shaker Heights, Ohio as well as director of athletics at Thomas Worthington High School in Columbus, Ohio.

Mitchell has worked on several higher education leadership committees. She currently serves on

the NCAA Division III swimming and diving rules committee and participates on the programming and education committee for the National Association of Collegiate Woman Athletic Administrators. While at Allegheny College she co-chaired the athletic directors group for the North Coast Athletic Conference. "I am honored by and thrilled for the opportunity to serve the students and community of Caltech through

education graduation requirement as well as intercollegiate athletic competition. Our objective will be to support a variety of members of the Caltech community in engaging their bodies in healthy ways that support their overall pursuit of personal educational excellence."

Mitchell was a competitive swimmer for over 10 years, earning an Olympic silver medal as a high school athlete by placing second in the 100-meter backstroke, and also

Korea. In between Olympic berths, she set the world record in the 200-meter backstroke at the 1986 World Championships. That record stood for five years. She has been honored with several awards, including being named USA Swimmer of the Year in 1986.

She was also a finalist for the Sullivan Award, which honors the top amateur athlete in the country, and was voted the U.S. Olympic Committee Sportswoman of the

She was a seven-time individual NCAA Champion in the 100- and 200-yard backstrokes and the 200-yard individual medley, holding the American record for both backstroke events for many years and the world record in the 100-yard event. Named All-American and Academic All-American many times, she also earned the NCAA Most Valuable Swimmer Award, the NCAA Top Six Award, and the Hondo Broderick Award for

Swimming. After completing her swimming career she represented the United States in the World Sculling Championships in 1994. Three years later she successfully summited Mount Kilimanjaro. Mitchell earned her BS in education from the University of Texas in 1988. She completed her masters of education degree in sports administration in 1991 and went on to earn a certificate of advanced study in education

- gocaltech.com

administration, planning, and social policy from Harvard's Graduate School of Education in 1997.

Article taken from www.gocaltech.com



Three heptathletes make Tech top-ten list

CLAREMONT, Calif. -- During their final competition of the 2011 season, three Caltech track and field athletes competed at that 2011

Claremont Classic Heptathlon. Sarah Wright was the top finisher for the Beavers by scoring 3000 points in the seven-event competition.

Her top mark came during the long jump when the sophomore jumped a personal best 15' 1 1/2" which placed her sixth all-time

in school history. Wright also set a personal best mark in the high jump as she cleared the bar at 4'9" which is also the sixth best mark

in Caltech history. Mia Oviatt finished second among the Beaver competitors with 2961. Her point total is the fourth best mark for a Beaver heptathlete. She moved into the school's all-time 10 list in two events.

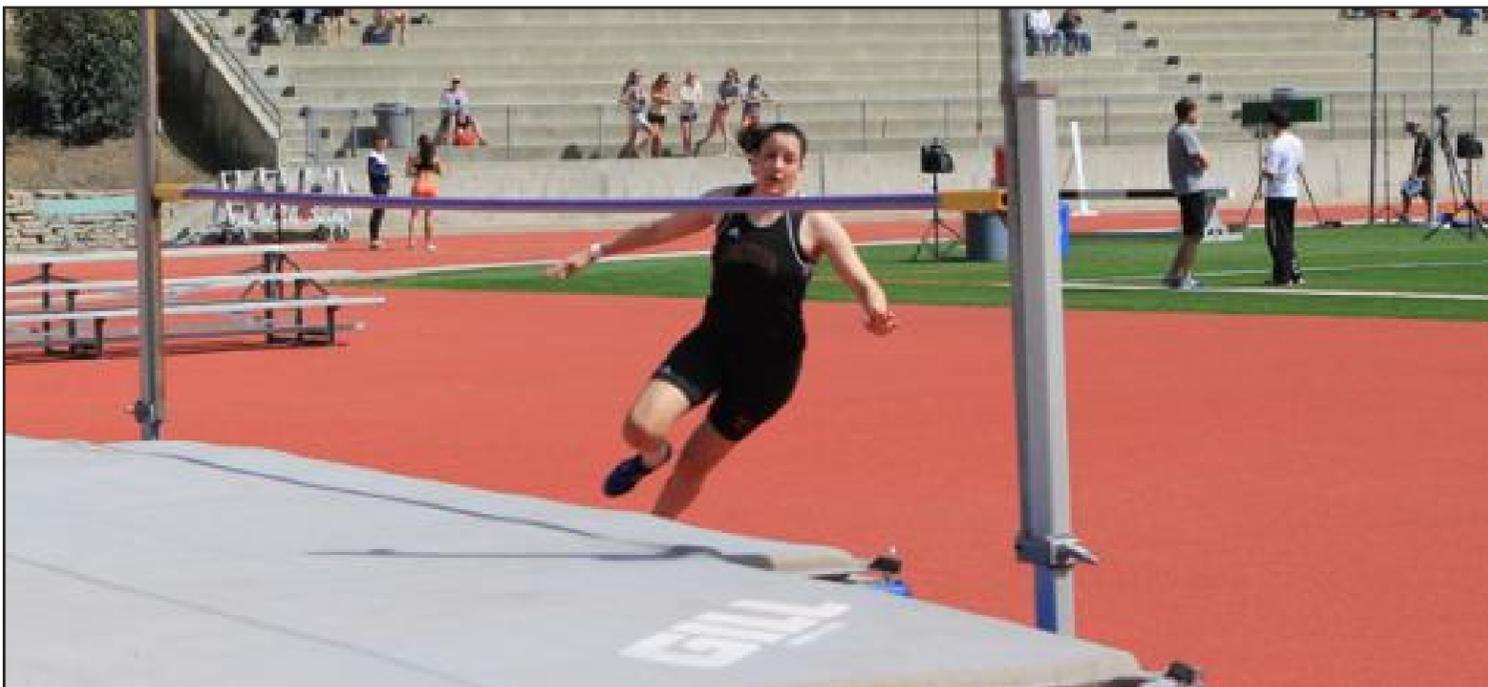
The native of San Antonio, Texas ran the 200 meter dash in 28.10 to place eighth all-time.

During the 100 meter hurdle competition the sophomore posted a time of 19.61 to move into ninth on the school all-time list in that event.

In her last competition as a Caltech athlete Deboki Chakravarti scored 2440 points.

During the high jump she cleared the bar at 4'3 1/4" which tied her for the 10th all-time spot at Caltech.

Also competing as an unattached athlete was assistant coach Kim DePrez. She tallied 3245 points.



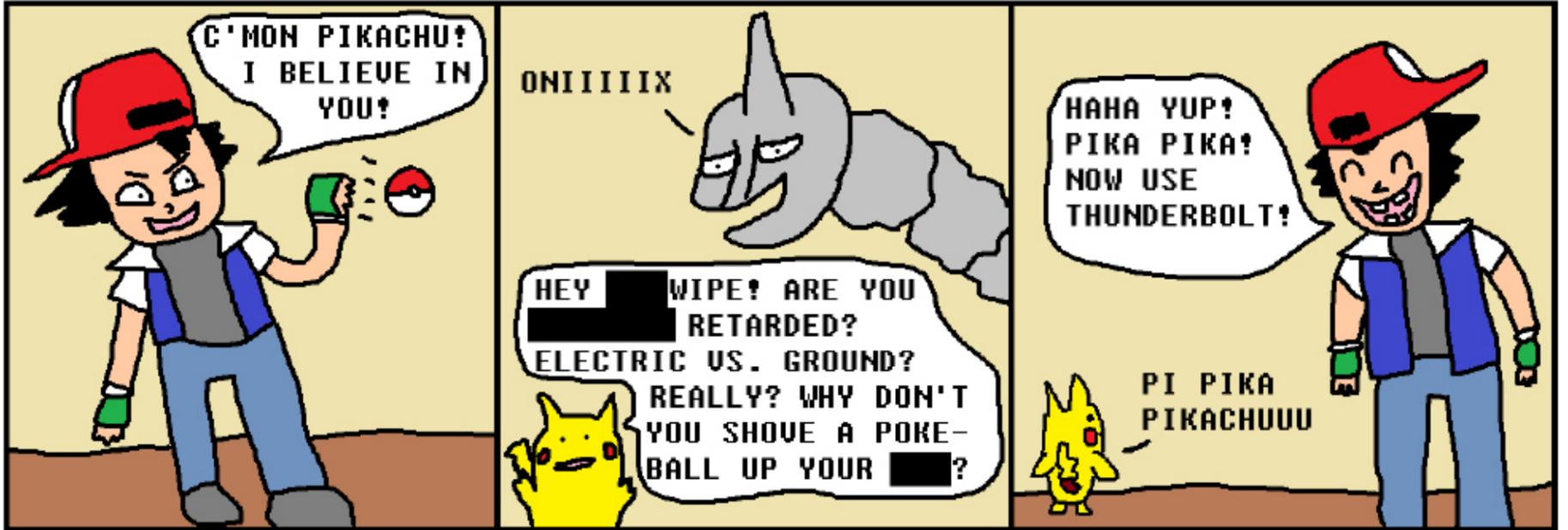
Sophomore Sarah Wright prepares to set a personal record on the high jump.

- gocaltech.com

Article taken from www.gocaltech.com

POKEMON THE ANIMATED SERIES

BY TIM SNAPE

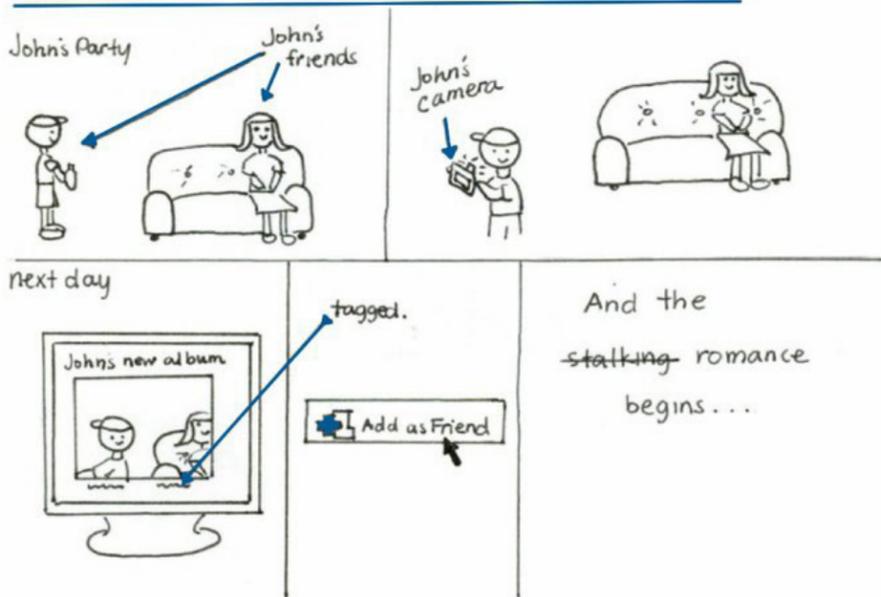


THE JOKE TREE

BY GUS STATTLOE



SHY GUYS GUIDE TO GETTING A GF



By Chau Dang

The California
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