

THE CALIFORNIA TECH



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APRIL 19, 2010

Caltech team takes 2nd place to UCLA at Google Games

By Edward Chen

STAFF WRITER

Several years ago, Google representatives took students from the University of Illinois Urbana-Champaign out to dinner and asked how Google can more effectively reach out to university students. Hannah Kim, one of many University Programs Specialists from Google, recounted a student's suggestion that all Google had to do was to "hold an event that highlights Google's culture, and make it a competition!"

That suggestion inspired the first "Google Games" between Berkeley and Stanford in 2007, where teams of mostly computer science and engineering went head to head on brain teasers, lego-building challenges, and video games.

This past Saturday morning, for the first time ever, a Google Games was hosted at Google's Santa Monica office between fourteen teams, each with five students, from University of California Los Angeles (UCLA), University of Southern California (USC) and Caltech. One of Caltech's two teams took second place behind one of UCLA's ten teams, winning Google duffel bags with Google "swag" and

Google t-shirts. Overall, Caltech teams had the highest average score for other university.

In her introductory remarks, Kim explained that this event was "mostly for branding, in addition to recruitment purposes." And recruit Google did: a total of \$3,000 worth of prizes were prepared to go to the top four overall teams, the top school, the most spirited team, and the highest scoring team of each category. The highest scoring team members all won Nexus One phones. Google employees even made sure to cater to the college demographic by providing bus transportation, breakfast, lunch, unlimited drinks and even free official Google Games t-shirts.

Teams competed against one another in three events: "geek trivia", Google puzzles and Lego building.

Google puzzles included standard crossword puzzles to nonstandard riddles. All puzzles were designed by a group of Google engineers and then rechecked by another group of engineers. Caltech Junior Jeremy Davis said that "the puzzles were cool and appropriately challenging... or impossible," in an email

See CALTECH LOSES pg. 6

Plans for another party with Harvey Mudd & Scripps

By Rick Paul

SPORTS EDITOR

Harvey Mudd, Scripps, and Caltech are once again joining forces to throw a party this term. The most noticeable difference between last year's party and this year's will be the change of venue.

The event will be held on the Caltech campus, with the focus being on the dance area in the RF courtyard. One or two of the houses will also be planning their own activities to add more diversity. In similar fashion to last year's party, there will be no construction.

The planning for the party is still in its preliminary stages. According to ASCIT secretary Prakriti Gaba, "The date is tentatively set for the first or second week of May."

Last year over four hundred

Caltech students attended the party, well over the original estimate of only two hundred to three hundred students. Although there was a large turnout, student reactions to the party were mixed. Many students complained about the unconventional layout. Instead of being confined to the various courtyards like most Caltech parties, the event was spread out over a large open space. The layout will likely be improved this year as it will follow the tried and tested Caltech party layout.

When asked for the reasons behind bringing back the party this year, ASCIT president Adam Khan replied, "We decided to have the party again because many students from Caltech, Harvey Mudd, and Scripps enjoyed the party last year. Harvey Mudd's student government was very excited to help us put this together again this year."

Prefrosh Weekend Features the First Student Life Saturday



Above, Grape-a-Don from the Pittsburgh hip-hop duo Grand Buffet performing outside Red Door Cafe on Student Life Saturday.

By Tina Ding

EDITOR-IN-CHIEF

From Thursday to Saturday, over 250 accepted prospective students (prefrosh) roamed the campus during Prefrosh Weekend (PFW), making their way through the myriad of Prefrosh activities.

Activities ranged from House events such as Ruddock Greens, Casino Night, Page Olympics, and Blacker Deconstruction to seminars about Caltech life and academics. The day also featured the traditional Club Fair and In-N-Out burgers.

Unlike in previous years, the official last day of Prefrosh weekend was Friday; students were

expected to leave on Saturday morning. In previous years, PFW ran from Thursday to Saturday.

IHC and Tom Mannion organized an optional day of activities on Student Life Saturday "to preserve and expand upon the great atmosphere and tradition that accompany [Prefrosh Weekend] and to plan a weekend day for our students to further interact with prefrosh and each other", said Mannion. Approximately twenty students signed up for Saturday in advance, but there were about twenty-thirty walk-ins.

Student Life Saturday featured a scavenger hunt, free food, and more House and club-sponsored activities. The main campus-wide event with a concert by Grand Buffet, a hip-pop duo from

Pittsburgh.

"It appeared that the events were all well attended and enjoyed," said Mannion. "It continued the great momentum created by the prior two days of [Prefrosh Weekend]."

Saturday's dinner, a barbecue that featured grilled corn on the cob, grilled chicken, and corn break, was sponsored by the Gnome Club, which is "basically the only fraternity at Caltech and one of the original living groups that preceded the South House, whose goal is to support alumni and student life," said Mannion. The Club, which inducts graduating seniors and over 700 alumni members, sent about twelve alumni to help with the dinner on Student Life Saturday.

Caltech Selected to Compete in the 2011 Solar Decathlon

By Richard Wang

CONTRIBUTOR

The U.S. Department of Energy has selected Caltech to compete in the prestigious 2011 Solar Decathlon. The competition, which is sponsored by the DoE, challenges collegiate teams to design and build the most efficient, attractive, and affordable solar-

powered house. The contest will pit Caltech against nineteen other teams in October 2011 on the National Mall in Washington, D.C.

"The Solar Decathlon gives us a direct way to use our skills in a real-life situation," said Fei Yang (junior ME), one of the lead engineering students on the Caltech team. "This is not just a competition but a vision of sus-

tainability and the future."

The 2011 Solar Decathlon, administered by the National Renewable Energy Laboratory, is a rare opportunity for students to apply knowledge learned in the classroom to a variety of real-world situations. Caltech students

See SOLAR DECATHLON on pg. 6

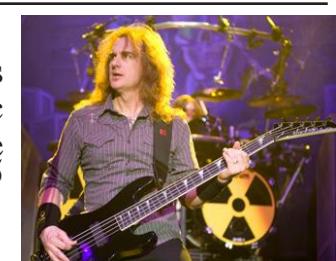
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OPINION/ASCIT

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APRIL 19, 2010

THE CALIFORNIA TECH

Opinions, Where art thou?

By Tina Ding
EDITOR-IN-CHIEF

Wow. Take a close look at this page. In fact, you don't have to look very close to see that except for James' piece on Neo Nazi Demonstration, there is actually no opinion. In fact, at 4:59pm Sunday, there was really nothing.

When I started being the editor of the Tech, opinion was something that was lacking every week. However, with the news release of Eco-rotation two weeks ago, I thought my weekly lack of opinion days were over. After hearing heated debates and discussions in the hallways, on the Olive Walk, on Facebook threads(two facebook groups for pro and against were even created!), and essentially everywhere on campus, I expected the submission of opinion to be of similar passion and fervent.

It was the topic everyone has to say something about, whether they were correct or not.

Remember the sexism upheaval sparked by a student PNGed from Ricketts for sending offending emails? Remember the amount of outcries in the Tech?

This year, there will be two of the greatest changes I have seen here and Caltech have experienced in the last decade. Core is about to be revamped like never before, and eco-rotation seeks to change a system that has governed student 4-year college affiliation for decades.

Write your opinions, for they will not only voice your concerns, but also records in our archives an important time of great change, when there were student dissent, outcries, and concerns. We finally woke up from the apathy that defines the undergraduate community, so why not let it be voiced here and recorded in history?

The California Tech

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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."

Neo Nazi Rally Results in Violence by Counter Demonstrators

By James Wu
CONTRIBUTOR

Last Saturday, a Neo Nazi rally was held across from Los Angeles's City Hall. Two people were severely beaten by counter demonstrators. One of them was a neo-Nazi, who was pulled away by police bleeding from his neck after being hit with a protestor's sign. The other was simply a man

carrying a confusing sign about religion and the swastika. The crowd ran after him as he tried to get away and pummeled him with punches and kicks as he lay on the ground, before police could get him to safety.

This incident reveals some of the uglier parts of our society. On one hand we have the racists, the supremacists, the neo-Nazis. On the other hand, we have the protestors who claim moral superior-

ity, and yet proceed to beat down those among them who offend their morals. This incident gave the neo-Nazis exactly what they wanted: the appearance of a victimized minority, and a recruiting tool.

Those that presume to hold the moral high ground should not be so eager to rush down to where their enemies stand.

Caltech Students, Read Past the First Page to Get All Your News of the Week

By Tina Ding
EDITOR-IN-CHIEF

Note the irony that the heading for reading past the first page is placed on the second page.

Good news to the Caltech community but mainly to the student newspaper. When I first started editing and putting together the Tech in the winter, I was ecstatic for having three news stories. This means they would fill up the first page, and at least that page would be aesthetically pleasing, even if the rest will be

plagued by white space, the nightmare of any newspaper group. Besides, Techers are not likely to glance past the first page.

In the last four issues however, we started running into the problem of having not enough space to fit all the news stories of the week. As great as this means for the Tech, I felt surprisingly worried. What about the "report them on the first page because Techers don't read past the first page," motto?

So here I stand on page 2, to take a stand against that motto,

and make a strong plea.

The editors and the staff will now print many interesting and timely news inside the paper from now on. Maintain your update on what's going on around campus by glancing inside all the pages, even if just it's to glance at the headlines.

The Tech is expanding, growing, and improving; we're asking you to open it and expand your weekly intake of the paper as well.

ASCIT Board of Directors Meeting – Minutes

April 12, 2010

Officers Present: Adam Khan, Tim Black, Brian Merlob, Chris Hallacy, Addie Rice, Prakriti Gaba, Karthik Sarma

Guests Present: Laura Conwill

Call to order: 2:03 pm

President's report:

- **Endowment:** Adam has been working with Anthony to help houses start fund-raising, etc. so that they can continue/begin building an endowment. The goal is to have the money go to projects that help the house.
- **Harvey Mudd Party:** Adam has contacted Harvey-mudd about more funding for party scheduled for the beginning of May.

Officer Reports:

- **V.P. of Academic Affairs (ARC Chair):** Teaching awards are coming up. Student-faculty lunches are also being held this term.
- **V.P. of Nonacademic Affairs (IHC Chair):** The Tech published article about a new rotation system last week. Students should talk to house presidents and express their concerns. Pre-frosh weekend is this weekend. There are several events arranged for Thursday and Friday, including In-and-Out, and dessert nights in houses. Also, the food chair, interhouse ath man, and stewardship chair were recently nominated.
- **Operations Director:** Merlob has been working on more club funding this week.
- **Treasurer:** There was a budget meeting this past Sunday where the BoD allocated money to events and clubs. Hallacy will be taking the new budget to financial services this week for updates. The Tech comes out late this week because of pre-frosh weekend. Student-faculty lunch funding asked for by Jordan Theriot. Blacker was given funding for their interhouse this weekend.
- **Social director:** According to the email survey sent out this weekend, most students want an ASCIT formal this year. Talk still going on depending on interest. Most seem to also like the idea of the San Diego trip, including travel to the San Diego beach, zoo, or sea world.
- **Secretary:** Bulletin board will be arranged soon, and ASCIT resolutions will be posted online.

Discussion:

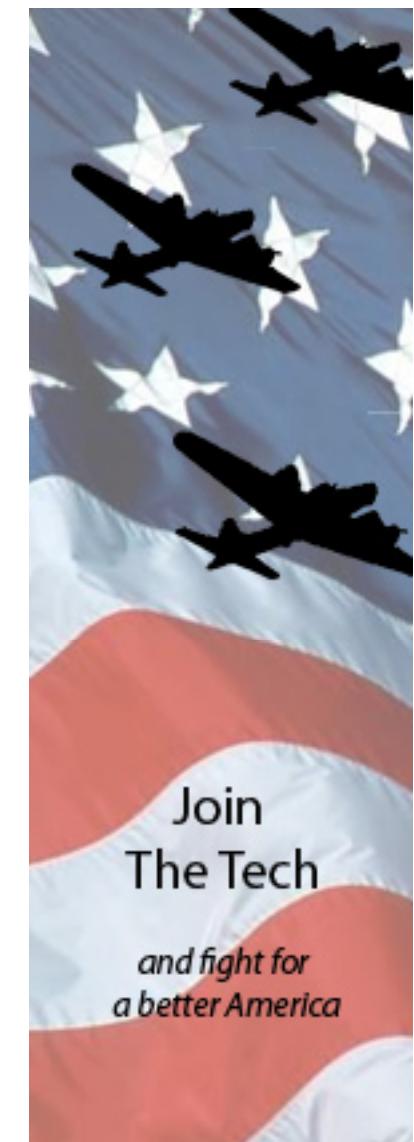
- **Dev. Team:** Hallacy was elected to dev. team. (6-0-1)

Scheduling:

- Club meetings: will be arranged soon.

Meeting adjourned: 2:30 pm

**Submitted by Prakriti Gaba
ASCIT Secretary**



Weekly Meeting - Fleming - April 8, 2010

Present: Tim Black (chair), DK Lim (Avery), Chris Whelan (Blacker), Andrew Price (Dabney), Alex Lapides (Fleming), Lucas Hartsough (Lloyd), Paul Fleiner (Page), Will Steinhardt (Ricketts), Dan Kolodrubetz (Ruddock), Laura Conwill (secretary)

Guests: Peter Daily, Maria Kastas, Marie Lara, Chris Hallacy, Vivian Sun, Grace Li, Jenny Xiong, Gerry Salinas, Brian Ventura, Dan Thai, Eric Samperton

Housing Office Report

Room assignments from the houses are due April 26. The unaffiliated lottery numbers will be posted online and in the housing office tomorrow, April 9. The unaffiliated lottery will take place May 6 and the summer lottery will be in early May.

The housing office will be hiring students to work in a Summer Conference Assistance position. In the past, it has involved working five hours per week in the housing office in exchange for summer rent in Caltech housing. The position is changing this year: the housing office is still looking to hire 15 people, but in addition to the usual work in the houses, the position will require working two solid 40-hour weeks at some point through the summer: one in the housing office and one in the maintenance office. Applications will be by email; there will be a directory email with the details.

This year, people checking out for the summer will have to check out with a person rather than online. There still will be a 24-hour extension for seniors, until the Sunday after graduation at noon. Every time there is a new housing contract in place, you will have to check in at the housing office even if you are staying in the same room.

Page is having some maintenance work done—courtyard is being painted, and borders are being painted on the doors.

Housing is thinking about making all of the SURF summer rooms be frosh rooms.

Prefrosh Weekend

We need a bunch of volunteers for Saturday, primarily for the barbecue and concert. Tim will email more info to the presidents. We also need to find a caterer for dinner on Saturday; dim sum was recommended.

Submitted by Laura Conwill
IHC Secretary

Weekly Meeting - Lloyd - April 15, 2010

Present: Tim Black (chair), Chris Whelan (Blacker), Andrew Price (Dabney), Alex Lapides (Fleming), Will Steinhardt (Ricketts), Dan Kolodrubetz (Ruddock), Laura Conwill (secretary)

Absent: DK Lim, Lucas Hartsough, Paul Fleiner

Guests: Dan Thai

Results of ASCIT Formal poll

Chris jokingly suggests to "IHC" Addie (IHC is now a verb) for suggesting there might be free food when there was not. Students are generally in favor of formal—40% for formal, 40% indifferent, 20% against. People are generally in favor of the trip to San Diego.

Dinner traditions

Peter Daily said that waiters can log their time for waiting at the dessert night tomorrow. Some houses will be holding announcements and dinner games after dinner.

Please note

Dan hates Will because he hates Will (and would like to make this public).

Marks/Braun

There have been some objections by students to the Marks/Braun board change; the IHC will talk to Peter Daily to change this.

Alumni Weekend

If houses would like to host an event over Alumni Weekend, presidents should email Tom Mannion by next Wednesday.

Wikipedia:

The Wikipedia page on the Caltech houses has numerous inaccuracies; each president will edit his house's page as necessary.

Submitted by Laura Conwill
IHC Secretary

	0910 Budget	0910 Spent	0910 Net	1011 Budget	Change?	Comment For Tech
TOTAL	61851	59764.36	2086.64	66100		We get 62.6k from dues and 3.5k from ASCIT endowment
Publications						
The California Tech	0	6890	-6890			10% of the dues are automatically given to the Tech, so there is no reason to give them more
The Totem	1000	0	1000			Wasn't spent last year. Don't see the need to fund it
Little t Starter Fund	400	211.19	188.81	400	0	
Salaries						
Big T Salary	500	0	500	500	0	
Little t Salary	300	300	0	300	0	
Totem Salary	250	249.98	0.02	250	0	
Salary Bonuses	2500	1299	1201	2000	-500	Money to be given to staff members on publications or team donut
Team Donut	300	300	0	600	300	We would like to have 2 payroll members at 300/programmer
Web Projects				1500	1500	1500 We might want to vamp Donut, which costs money
Operations						
Office of Operation	1200	1140.28	59.72	1200	0	General expenses by the BoD
DVD Library	500	0	500			Never used anymore
ASCIT Teaching Awards	1000	400	600	1500	500	ARC Chair would like to put on a nicer event, which costs money
Jamroom	300	300	0	300	0	
BoC	700	434.29	265.71	700	0	
IHC	500	243.5	256.5	1500	1000	IHC Chair would like money to do more things with the IHC
SExCom***	300	300	0			Included into Other Social Events
ARC	500	101.15	398.85	1500	1000	ARC Chair would like money to do more things with the ARC
Student Faculty Lunches	400	509.67	-109.67	400	0	
Staff Awards	400	400	0			Included into ASCIT Teaching Awards
Honor Key	300	0	300			No longer done, so why fund it
Frosh Lunches	2000	0	2000			No longer done, so why fund it
Special Projects						
Screening Room	150	0	150			
Project Reserves	5650	4849.36	800.64	3000	-2650	Contingency Funds
Special Events						
Caltech Y	500	1500	-1000	1500	1000	500/decompression
Student Faculty Conference	1000	925.18	74.82	0	-1000	Occurs every other year
Senior Class Gift	100	0	100			ASCIT never uses this money, so should spend it on better things
Semana Latina				500		Requested by Mario Zubia
Social Events						
Doughnuts	4000	4010.81	-10.81	4200	200	Little more expensive this year
Bagels	1200	723.99	476.01	1200	0	
PFW**	1500	0	1500	2400	900	300/house for PFW activities
ASCIT Formal/AlternaProm	2000	4460.85	-2460.85	4000	2000	General fund for some sort of end of the year event
Multihouse Events	4800	2256.74	2543.26	3000	-1800	2 events per house per term for \$100. This is generally not used, but the policy is still in effect
Interhouse Events	4000	3754.35	245.65	4000	0	500/party
Athletic BBQs	1000	0	1000			Never occur
Pre-school events				500	500	Activities for preseason athletes
Interhouse				4000	4000	BIG INTERHOUSE!
Alumni Event	4000	4001.04	-1.04			Included in Big Interhouse funding
Other Social Events	3500	3771.98	-271.98	7000	3500	huge social budget = more social events
Harvey-Mudd Party				2500	2500	@ Tech this May!
Clubs	15101	16431	-1330	15650	549	



Meet Professor Atwater

interviewed by Vivian Yang

aging things or focus light into a cavity, for example, we need very small wavelengths. We're now starting to apply this to microscopes and switching devices.

Tech: What else?

Atwater: Well, more recently we started to get into solar energy, and we have a new solar cell that is more efficient at absorbing light and converting it to energy.

Tech: So what kind of research in graduate school or even before that got you into plasmonics and solar energy?

Atwater: In graduate school at MIT, my mentor was one of the leaders in x-ray lithography, so my research was focused on nanoscience technology. Also, I've always had an abiding interest in energy since high school. It was always in the back of my mind – the importance of energy.

Tech: What do you mean?

Atwater: Well, when I was a teenager, my high school was shut down in the winter time because of the lack of electricity, and this made me realize that energy is a pretty important commodity. This was during the energy crisis, when gasoline prices went way up. Energy resources is what divides the people who have and the people who have not. This new solar energy technology has the potential to help many people who don't have the means to obtain energy, and finding a way to provide large scale renewable energy to everyone is one goal of my research. That's one of the reasons why the size of my lab has doubled in the last few years.

Tech: You mentioned that you went to MIT for graduate school – how do you compare Caltech and MIT?

Atwater: Well, MIT has a feel of a larger university, and it's very engineering oriented. On the other hand, Caltech feels like a liberal arts college, but it's more science oriented.

Tech: Which do you like better?

Atwater: Maybe you should know that I was almost a lifer at MIT, that is, I went to MIT for undergraduate and graduate school, and almost accepted a position there for further research. But I've been at Caltech for the past two decades, so...

Tech: What do you like to do outside of lab? Well, if you leave lab at all...

Atwater: I play soccer! I love soccer; I've been playing since I was ... [gestures to the height of a small child]...this tall. Now I play soccer with the physics graduate students and I coach my boys' soccer league.

Tech: Do you have any last words of wisdom for a sophomore at Caltech?

Atwater: Don't be shy about being inquisitive. Don't feel like to have to work hard and burn out during your undergraduate years (you'll have plenty of time to be a graduate student), but indulge yourself in learning. Less is more!

Tech: Thanks! Is there anything else you want might want me to write about?

Atwater: Actually, yes. Caltech has a team in the Solar Decathlon, which is a student project. I am the faculty advisor for this project, but our job is to provide the means for the students to get what they want without interfering with their work. I'm very excited to be a part of this project and the students have a lot of great ideas.

For more information about the Caltech Solar Decathlon, please visit www.solardecathlon.gov.

DR. Harry Atwater, recently featured in the media for creating highly absorbing, flexible solar cells, has been at Caltech for the past 22 years after completing his Ph.D. at MIT in 1987. He is a Professor of Applied Physics and Materials Science and was named a Howard Hughes Professor by the Howard Hughes Medical Institute. Dr. Atwater currently is involved in research, teaching, and mentoring the Caltech Solar Decathlon team. I sat down with him a couple days ago to get to know more about his research and his personality.

Tech: Let's start with an easy question. What are you famous for?

Atwater: [Laughs] Well, I think I'm most known for 'creating excitement' in a field called plasmonics, which is, essentially, a field that sits at the junction of photonics and optics.

Tech: Why are they interesting?

Atwater: Basically, we study the optics of metals. You see, light propagates through free space at a certain speed and wavelength. But when you go into a dielectric material, like metal, the wavelength gets shorter. This means that we can get light to travel extremely slow and concentrate the wavelength at a certain position.

Tech: Does this mean you can see really small things?

Atwater: Yeah, we are getting into the nano-scale now. In order to localize light for im-

Looking back on Prefrosh Weekend

Photos by Laainam Chaipornkaew



Clockwise from top left:
Dongkook Lim and Laura Conwill having fun during prefrosh activities;
Caltech Jazz Festival on Beckman lawn;
Prefrosh tie-dyeing T-shirts for Dabney House PFW activities;
Barbecue dinner

May All Our Warheads Rust in Peace

by David Ellefson

The floor was packed with furious, grizzly looking metal heads waiting for the sold out performance of the entirety of Megadeth's landmark R.I.P. album. To satiate the fans' thirst for blood, San Francisco thrash titans Exodus let it rip, with brutal lyrical content and lightning fast guitar riffs. Continuing the biblically themed mayhem, Testament came on stage next to continue the blood bath. The pit was vomiting limbs and other bloody body parts as the evil vocals of Chuck Billy aroused our most deviant behavior, while the epic guitar work of Glen Drover tore the roof off of the arena. When the dust settled and the smoke cleared, sounds of ambulance sirens could be heard outside as the mangled victims of metal picked up what was left of their tattered bodies and prepared themselves for the main event.

And none of us could ever prepare for what was about to happen...

An intro tape declaring martial law came over the PA, warning us to lock our doors, stay inside, and report any suspicious behavior. A strict curfew of seven o'clock was to be implemented, and any violators would be shot. A dark silhouette appeared behind the Voelker drum rack, and was instantly recognized as drummer Shawn Drover, whose brother just left the stage. Next came lead guitarist Chris Broderick, whose monstrously muscular figure dwarfed the once grand appearance of the audience. Finally, the moment we've all been waiting for: the original bassist David Ellefson, who recently ended his eight-year feud with front man and co-founder Dave Mustaine, returned. His entrance was met with a thunderous roar of applause from the more than ready to explode audience. Last but certainly not least, a God among men graced our presence in the body of 48 year-old Dave Mustaine, whose biography makes that of Jesus Christ look like a small

tabloid article you read while you take your morning shit. And immediately afterward, Drover hit the drum solo that begins the crowd pleasing "Skin O' My Teeth".

The twin guitars of Mustaine and Broderick sounded cleaner than any noise that a studio could produce, while Ellefson held the bottom end rhythm with his impressive stage presence. Next came "In My Darkest Hour."

The dramatic solos that Mustaine and Broderick switched back and forth made my friends soil themselves, while I broke down in tears. After we cleaned up, the mainstream classic "She-Wolf" set the air for what was to come.

Mustaine took the stage, greeted us with his infamous snarl, and asked, "Do you know why you're here? Do you all know why?" just as he fired the opening riff to "Holy Wars...The Punishment Due," a genre defining song that could only be compared to the likes of "Master of Puppets." Thus began the live performance of the entire R.I.P. album.

The following track, "Hangar 18," is notorious for its extremely difficult rhythm work and tedious soloing sections, but Mustaine and Broderick executed every

note to perfection. Broderick's brutal head banging complemented the delicate perfection to which he performed the lead guitar work on this overly-technical song. As the band played through the next few tracks, the already decimated remains of the moshpit now turned to blood pulp and dust, while the four performers continued their work. The band never sounded better, and

every song pierced the our hearts and ears, as the thrash classics held us helpless and left us to do nothing more than fight, f*ck, or follow. We were constantly

reminded why Mustaine and Ellefson's musical brainchild is to this day considered one of the best heavy acts of all time.

The rhythmic epic known as "Tornado of Souls," demonstrated Mustaine's ability as a song writer and guitar player, and if nothing else, how much of a badass he is. Ellefson, loyal as ever, was an inspiration to us all, as he dawned his signature Jackson 5 string and let all hell break loose. After the poetic, environmentalist "Dawn Patrol," and the album's title track, "Rust in Peace...Polaris," the band disappeared for a short break. I'll be damned if we didn't need it, as we marched along the pilgrim-

age of bloody, young, disenfranchised nobodies to the nearest first-aid station. Upon realizing that Megadeth's assault on our bodies was terminal, we religiously flocked back to the execution grounds, to see how the band would close this unbelievable set.

The beautiful song "Trust," opened the encore, and proved to us that metal didn't always have to run at 1000 bpm for us to feel that our personal misery was recognized by our on-stage heroes. After two tracks from the bands 2009 album *Endgame* the sound of a concert orchestra could be heard over the PA. As this happened, we all burst into a frantic state of lunacy, for we recognized this as the opening to the anthemic "Symphony of Destruction," another one of my personal favorites. By now, the remains of human flesh and waste were sopping under the towering presence of the band, who weren't showing any remorse.

"On the drums, Shawn Drover!"

"On lead guitar, Chris Broderick!"

"He doesn't need an introduction...on the bass, David Ellefson!"

"And me, I'm the old mother f***er with the chip on my shoulder." Alas, I met my friends again.

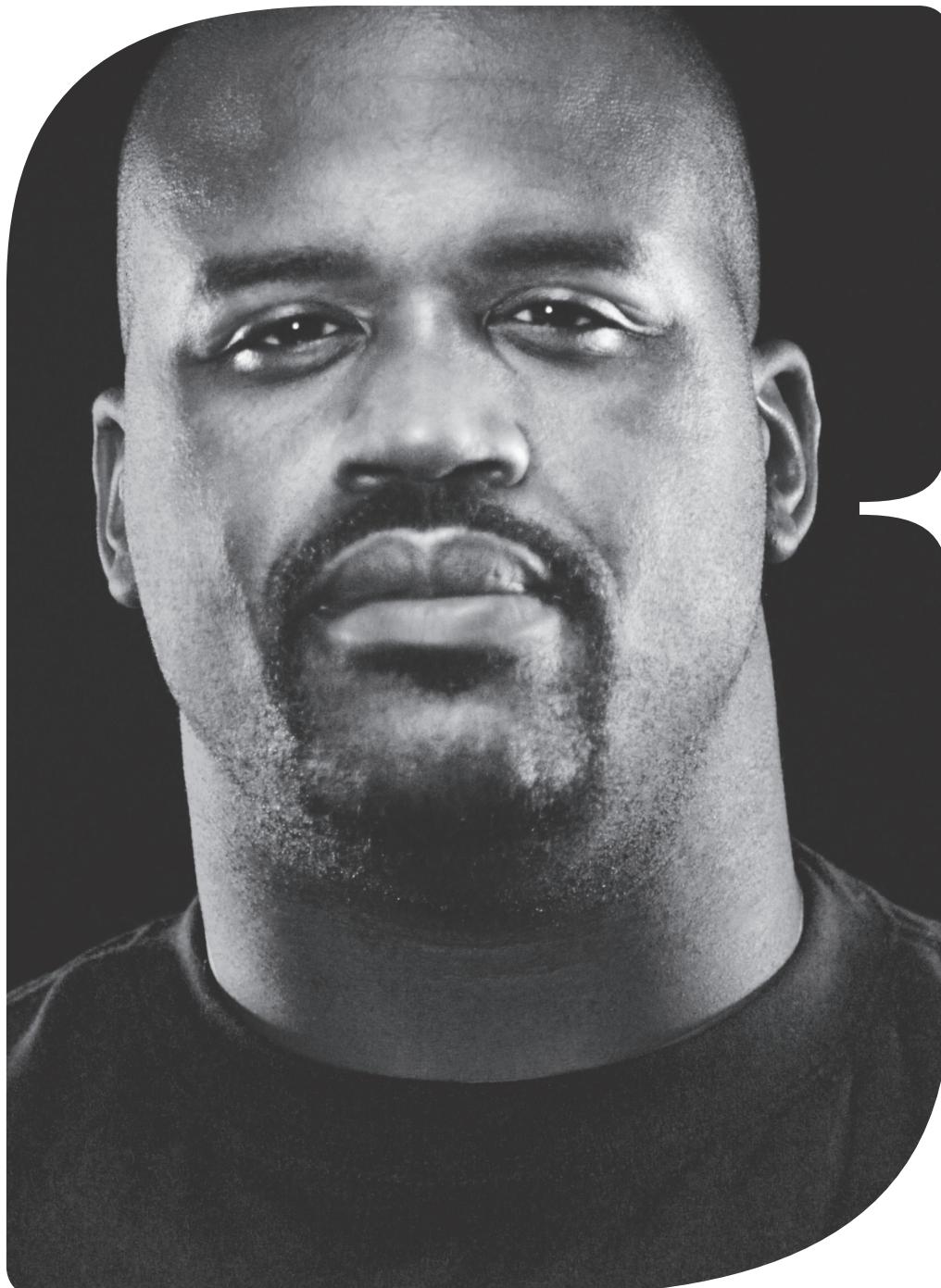
As Ellefson alone walked on stage and Drover held a steady kick drum beat, we began hacking away at each other as the bass line to "Peace Sells," pounded through our brains. The sheer terror of the venue during the next four minutes was a testament to the band's greatness, and as an added bonus, the band ripped through a reprise of "Holy Wars..." to tickle our tainted souls one last time.

I've been to many concerts, and I have only a few bands I worship more than Megadeth, but on that night, none of that mattered. Mustaine and Co. dominated our world and set the stage afire, so that nobody in the greater LA area could ever mistake their presence as one of music's most important and powerful acts.



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Congratulations!

San Pedro Travel Prize Awarded

Four juniors and one sophomore have won SanPietro Travel Prizes for travel this summer.

Donatella Bellone, a chemistry student and member of Fleming House will travel on her own to Italy to visit the land where her family lived before they emigrated and came to Argentina.

Fellow cross country team members **Clara Eng** (Chem E/Avery House) along with **Stephanie Wuerth** (Geochemistry/English and member of Lloyd House and Avery House will take an extensive bike trip along the border between France and Germany in the Strasbourg area and then continue to bike river paths in Southern Germany.

Colin Ely (ME & member of Ricketts and Blacker House) and **Anna Ivanova**, (Chemistry/Blacker House) both keen students of pottery and potters themselves, will undertake a railway tour to see potteries throughout Japan.

Solar Decathlon Selected to be Finalist

Continued from pg. 1

will be responsible for the technical underpinnings of the house, including all aspects of systems engineering, mechanical and electrical subsystems, and user experience design.

Caltech has partnered with the Southern California Institute of Architecture (SCI-Arc) to form Team SCI-Arc/Caltech, the only American team west of the Mississippi in the continental United States. Despite this, the team expects to face stiff competition from veteran American teams, as well as from schools in Belgium, Canada, China, and New Zealand.

"We firmly believe in the mission of the Solar Decathlon to propagate affordable, sustainable design and look forward to bringing the spirit of Southern California to the competition," said Reed Finlay, a graduate student at SCI-Arc and the team project manager. "Our team is extremely excited to learn all we can from the Caltech students and faculty throughout this process."

SCI-Arc is a renowned architecture school based in downtown Los Angeles. It has a reputation for innovative design and is one of the nation's few independent architecture schools. The

school's administration and student body have expressed strong support for the competition, and several dozen students are actively involved in the project. Working through their design studio classes, SCI-Arc students produced and submitted the conceptual design which pushed Team SCI-Arc/Caltech into the final competition.

Professor Harry Atwater, the Caltech team's faculty adviser and director of the newly-founded Resnick Sustainability Institute at Caltech, is also enthusiastic about the project. "The Solar Decathlon is a fantastic opportunity for Caltech students to merge science fundamentals with design and real-world economic constraints in an interdisciplinary project. For the students involved, it will be very time-consuming but also a tremendous amount of fun."

Last term, Engineers for a Sustainable World (ESW) organized a series of lectures by prominent Caltech professors and other experts in sustainability. These lectures provide a solid technical introduction to the fields relevant to the competition. They are freely available to Caltech students upon request.

This term, the team efforts are organized through an independent study course (APh 100) under Professor Atwater. Dr.

Doug Caldwell, Chief Architect for Boeing's Renewable Energy Solutions business division, is the lecturer for the class.

"Students who get hands-on experience with real-world projects during college understand the applications of their formal coursework better and have more opportunities after graduation," said Dr. Caldwell. "Multidisciplinary projects like this expand our horizons and help develop teamwork and communication skills crucial to future success."

Ben Kurtz (junior physics), one of the team members, has a sobering view of the task at hand. "We have quite a daunting undertaking ahead of us: only eighteen months to design, build, and move a fully functioning house across the country. We're going to need all the help we can get."

Students interested in pursuing the Solar Decathlon are strongly encouraged to sign up for six to nine units of APh 100 (Section 2) this term. Classes are held every week on Wednesday 7-10 pm in Watson 104. Students of all backgrounds and expertise are needed and welcome.

Next year, the class will likely evolve into CS/EE/ME 75, which can be used to fulfill option credit.

Email Fei Yang at feiyang@caltech.edu for more details.

Wanted!

One or two undergraduate student to be part of the DELIVERY STAFF for the Tech. The current students with this position is Aryan Safaie and Edward Chen.

You get a sweet pay. You get to drive the green THINGIE around campus

INTERESTED?
Email tech@caltech.edu

Caltech Takes Second Place to UCLA

Continued from pg. 1



Caltech Team competes in the Google Games in Santa Monica

statement.

The third and last round of the competition was the Lego building competition where each team had a bag of Legos and was asked to construct a tower.

The ordering of the teams flip-flopped from start to finish. By the end of the first round, "geek trivia", Caltech's "Renaming" team was in third place behind two USC teams. By the end of the competition, Renam-

ing was sandwiched between two UCLA teams.

Attendees seemed to recognize the recruiting potential of the event. Most of the UCLA teams showed up with customized t-shirts and costumes. One UCLA team, the "Ninjaneers", had dressed up in black ninja suits throughout the day and had used as their team cheer a performance of 'Seppuku', or an honorable suicide of a defeated ninja-- they

also won the team spirit award. Other schools were not as outwardly spirited. "I am here to have fun," said Caltech freshman Sarah Whiteman.

Students and employees had nearly filled the largest conference room at the Santa Monica site. Roughly eight Google engineers had volunteered their time to host, judge and be available at the event for those 70 students. Kim, the director of the event,

News Briefs and Announcements

The Caltech Project

With response rate at 60% after five days, the Caltech Project course student are striving to keep increasing this number. This survey strives to map the social network of the Caltech undergraduate community and was released to students on Tuesday, April 13th. Led by Professor Ensminger, students in An150 will be studying the outcome of the survey. High response rate (>90%) is needed for this project to succeed. Ensminger does her research in Kenya villages, and took a special interest in the Caltech community. She worked for a year to set up this course.

The Student-to-Student (s2s) Mentoring Program

A student-run resource, s2s seeks to provide peer support regarding a variety of academic and non-academic matters to graduate and undergraduate students at Caltech. Students who have experiences in specific issues--such as depression, family problems, relationship issues, and applying to graduate school--serve as mentors for those in need of someone to talk to on an informal basis. Students will be able to request a mentor online, or sign up to be a mentor.

Student Athlete of the Week:

Hanna Dodd

Hanna Dodd, a native of Pasadena, is a freshman women's water polo player in Page House. She is the daughter of Clint Dodd, Caltech's Head Men's and Women's Swimming & Diving Coach, and Suzanne Dodd who is currently the manager of the Spitzer Space Telescope. Hanna was a water polo player at Pasadena High School and racked up Pasadena Star-News All-Area Water Polo second team honors during her junior year.

1. What is your major?
Mechanical Engineering
2. People will be surprised to know . . .
I marched with my marching band in the Rose Parade twice.
3. What do you enjoy doing in your free time?
I enjoy surfing the web.
4. Favorite movie?
Forrest Gump
5. Describe your sport in 3 words?
Intense, Physical, Awesome
6. What teammate has inspired you the most?
Peggy Allen
7. Favorite quote?
“Pain is weakness leaving your body.”
8. Where do you get motivation from when things get tough?
My friends watching in the stands
9. If you hadn't come to Caltech where would you be now?
UC San Diego
10. Who is your favorite player at Caltech, any sport?
Sarah Wright



Junior Rob Rosenberg throws a pitch on Saturday



Upcoming Games

Wednesday, April 21st

7pm W Water Polo vs Redlands

Friday, April 23rd

3pm Baseball @ Pomona-Pitzer

Saturday, April 24th

11am W Water Polo @ La Verne

1pm Baseball vs Cal Lutheran

Weekly Scoreboard

April 16

Baseball vs. CMS

L 3-15

April 17

Baseball vs. Oxy

L 5-15

Women's Water Polo vs. Cal Lu

L 2-22

Women's Tennis vs. Whittier

L 4-5

April 18

Baseball vs. Whittier

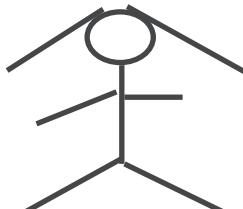
L 5-18

Personal Ads:

Let the Tech help you find your perfect match today!

Plain Jane

Insecure, Tech-hot sort-of single female looking for single, hopefully Asian, hopefully good-looking, hopefully smart, nice guy. This guy must want a girl who's got a brain and speaks her mind in a very socially awkward manner. This guy must also be okay with the fact that sometimes, this girl will not be listening to a word he is saying and instead will be thinking about calculating transmission and reflection coefficients of plane waves hitting a potential barrier. But most importantly, this guy must not treat girls like a dog chases cars-- "Oooh, look, there's one I like!", runs a little, "Oooh, but what about that one?", runs in the opposite direction, "Oh no, why are they both running away?"



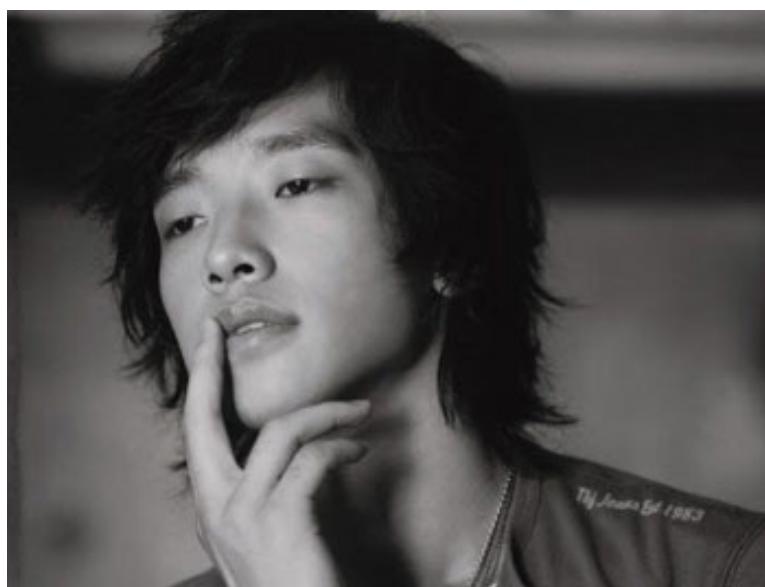
Jackie Chan

Certifiably awesome male looking for female. Must be able to realize when other guys are hitting on you, must be willing to be used as a self-esteem raiser, and must be willing to make sandwiches on demand. Most importantly, must be willing to have sex regularly, including days without a math set due. A donk is preferred but not required. Large breasts work as a substitute for the above requirements.



Eduardo Desperado

I'm an eager to please Asian male looking for a freshman female to drink alcohol with. I will provide the alcohol as well as the roofies. Any girl is fine, but you must be willing to let me watch while you sleep on my couch. It would be great if you're slightly unsure of yourself and desperately seeking confirmation of your self worth. Please no dudes.



Eco-Rotation in a Nutshell



$$\Rightarrow \Sigma\Theta$$

$$\Rightarrow N\Theta$$

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