

# THE CALIFORNIA TECH



VOLUME CIX, NUMBER 1

PASADENA, CALIFORNIA

OCTOBER 1, 2007



Sky Rashby and girlfriend Crystal Gammon in Hawaii.

## SAC opening delayed Month set-back due to mold

BY DANIEL ROWLANDS

Students waiting to use the AS-CIT screening room in the Student Activities Center (SAC) will have to wait at least a month, as the discovery of mold delayed the renovation of the underground structure this summer.

Like the South Houses renovation, which finished months behind schedule due to the discovery and removal of asbestos, the SAC renovation was put on hold for several weeks while the mold was removed and the air was tested for spores by independent testing companies.

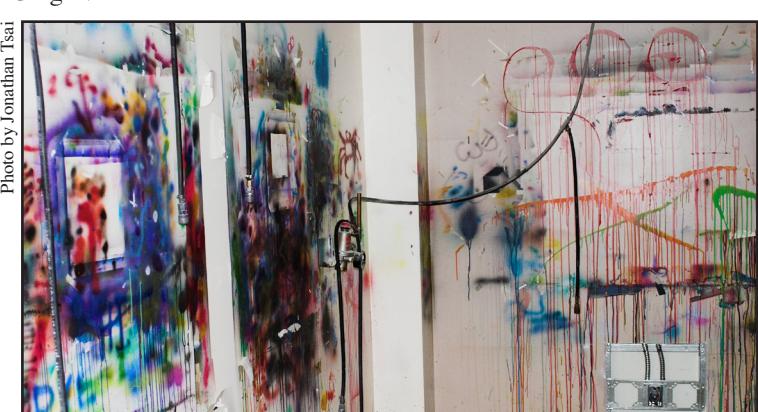
The project, originally slated for completion by the end of September, is unlikely to be finished until November, according to Greg Norden of the Architecture

and Engineering Services department.

Initially, the SAC renovation was dropped from the South House renovation project due to cost overruns associated with the unexpected discovery of asbestos in the South Houses. However, when John Hall became the acting Vice President for Student Affairs, he proposed renovating the SAC as a separate project and \$400,000 was diverted for the project.

Once the main South Houses renovation was completed, bids for the SAC renovation were requested, with one of the requirements being that the project had to be completed by the end of

Please see SAC, Page 4



Jackson Pollack? Graffiti and exposed wire could be found in SAC rooms in mid-September, when the renovations were supposed to be done.



## Best visits in Pasadena and LA

Page 6

Energy lectures start Friday  
Soccer suffers narrow loss  
Rotation revamped  
Dr. Quark is back

## In This Issue

page 5  
page 5  
page 8  
page 12

## Wiki innovator enrolls at Caltech

Page 7



## Remembering Sky Rashby Grad student known for friendliness and wit

BY VIBHA LALJANI

Members of the Caltech community, friends and family members say they are still numbed by the death of Sky Rashby three weeks after he took his own life.

Sky, 28, was a third-year doctoral student in geobiology, studying with professors Dianne K. Newman and Alex Sessions.

Sky was born on February 17, 1979 in his family's Topanga home, the son of Topanga filmmaker, artist and activist Burt Rashby and his wife Beverly Zbuska-Rashby. He graduated with high honors from U.C. Berkeley in 2002, receiving a B. S. degree in Molecular Environmental Biology with a minor in Environmental Economics and Policy. Last year, he co-authored an article in The Astrophysical Journal. His research at Caltech was on the localization and function of a class of lipid biomarkers.

In addition to scientific research, he was politically active especially regarding environmental issues. His sister Carolyn Rashby said, "He was deeply concerned about the environment and worked with

and how I just went numb."

Upon hearing of Sky's death family friend Karla Morrison told *The Messenger*, "It's so sad. I remember him as a little boy. I would always bring him a holiday present and it would always be a puzzle because he was just so intelligent. He was so bright. And you couldn't help but love him. This is such a loss."

Amy Hofmann, Sky's office mate, was likewise crushed when she heard the news. "Initially," she says, "[I felt] as if I had just been tackled by a 300-pound linebacker -- that tightening of the chest followed by racing thoughts of disbelief. I had just returned--early--from a trip abroad and was looking forward to talking with him about some of the realizations I had had (or thought I had had) about America

"[I felt] as if I had just been tackled by a 300-pound linebacker...that tightening of the chest followed by racing thoughts of disbelief."

-Amy Hofmann, office mate, upon news of Sky's death

various environmental organizations over the years to try to make the Earth a better place."

The news came as a profound shock to his family and friends. Carolyn said, "We were devastated. I will re-live over and over again the phone call I received

Please see SKY, Page 4

## Caltech inches up in US rankings Yield, graduation rates still weak points

1. Princeton University
2. Harvard University
3. Yale University
4. Stanford University
5. University of Pennsylvania
5. California Institute of Technology
7. Massachusetts Institute of Technology
8. Duke University



Image by Michael Comstock

BY HAROLD MARTIN

Though Caltech outranked MIT twice this summer in national rankings, Caltech admissions officers say a small marketing budget hurts the school in attracting the students they want. Caltech was named Kaplan/Newsweek's "Hottest for Science and Engineering" and tied for fifth with the University of Pennsylvania on the U.S. News and World Report list of top national schools.

Despite glowing rankings,

Caltech still struggles in enrolling accepted students. Ranking has had little impact on students' choice of college after being accepted. "It's not at the end that these things matter, it's more near the beginning [of the college search]," said former student admissions officer Ben Golub.

One of the difficulties Caltech faces is being out-marketed by competitors for top talent. MIT has approximately three times the admissions staff and six times the admissions budget.

"Unless there is a high level administrative decision, [the admissions budget] is going to hover where it is." Golub thinks the admissions budget ought to be tripled.

"Our admissions staff is probably half the size of the admissions staff of small liberal arts colleges with nationwide recruitment programs," said Bischoff.

Expanding recruitment could have a significant impact on minorities in particular. "You can

Please see RANKINGS, Page 4

# From the Editors

## Welcome to Tech, Prefrosh

If you're anything like I was as a frosh, you've spent the past week shaking hands, gulping free food like a king, watching fireworks in your honor, and wondering if your personal party actually lasts four years.

It doesn't, but enjoy it while it lasts.

You'll soon discover that class consumes the daytime, sports or naps take the afternoon, dinner is perhaps more of an ordeal than it should be, and problem sets rope [sic] you from sunset til late night. God help you before Interhouse. What happened to the time you spent in late-night conversations and in impromptu excursions around campus?

Time is the most precious commodity you have at Caltech. How you use it will define your four (or five) years.

No doubt you were inundated by dozens of clubs vying for your email address on Saturday. As much fun as it might be to volunteer for the Caltech Y, dress in medieval garb with the Caltech Renaissance Club, dance with the Salsa Club, and play trombone in Pep Band, there are only 24 hours in the day, and you've got sleep and problem sets.

Experimenting with a handful of clubs is fun, but you should be prepared to be selective with your time. It's pretty easy to over-commit yourself to the point of exhaustion.

That said, please consider the following shameless plug:

After a few weeks of wide-eyed busy-tailed enthusiasm for math, science, and engineering, you might be limping over to a less technically oriented playground to get your kicks.

And that's where The Tech comes in. Consider the student newspaper a venue for opinion, hard news, photography, sports, and occasional humor. It's a way to see lectures by Stephen Hawking and Mikhail Gorbachev, and rub shoulders with famous profs in interviews.

Covering campus events helps you keep up with the funny world of student politics, and sports writing gives you an excuse to root for the home team. You can write articles, take photos, do page design, play with Photoshop, or copy-edit.

Best of all, you can get paid up to \$25 for a single article.

The Tech also takes free-lance work. If you have an idea for a story, a letter to the editor, or took a ton of photos at an event, email [tech@caltech.edu](mailto:tech@caltech.edu) and let us know. Our deadlines are Friday at midnight for the upcoming Monday issue.

It's up to you how you spend your time. I hope you consider the Tech, but if it's not your thing, best of luck as you find what is worth your time.

*Marissa Cevallos  
Editor-in-chief*

## Caltech traditions and you

BY CRAIG MONTUORI

Caltech's been around for quite some time by this point, so we've racked up a few traditions here and there over the years. I'm the self-declared historian around here, and you can listen to me spout if you ever come across me wandering around Caltech as I am wont to do.

So, here we go. Once upon a time, Caltech had a football team. We were not only undefeated in the '44-'45 school year, but we were never scored upon for the entire year. That feat has never been duplicated in SCIAC history. Speaking of SCIAC, which is our NCAA regional group, we were a founding member in 1915, when we were still the Throop College of Technology, where the 'h' in Throop is silent.

Over the following years, Caltech football lost some of its luster. However, in 1968, when we beat UCSD, a magical phenomenon took place on quite a few of the street intersections in Pasadena. Of course, I speak of fire. Lots and lots of fire spontaneously appeared on the streets of Pasadena. Kids, don't try this at home. Pasadena FD would probably look poorly on such a repeat occurrence these days.

Now, let's go back about 30 more years. In November 1938, there was a riot on campus, according to a Special Edition of the Tech. The cause of this riot? Why, nothing less than an excess of school spirit as a result of an upcoming football game. We were going to have a pep rally

before a game against PJC, now the Pasadena Community College (PCC) across Hill Street. There was some sort of miscommunication and a near-riot resulted. How about that?

My favorite line from the incident, as reported by the Tech? Engelder: "Get out! I'm studying!" The fellow just laughed, but left after Engelder socked him." On a side note, another article in that issue reports that the famous Jackie Robinson was at full strength for the game after missing the previous spring's game, where Caltech whooped PJC, which Mr. Robinson played for. Apparently, he went into baseball a few years later; you may have heard of him before. Yes, that Jackie Robinson.

Moving on to the buildings on campus, many decades ago, where today the architecturally-beloved Millikan Library stands, of which the preceding phrase was sarcasm, there was this beautiful building called Throop Hall. Every Christmas, students would hoist the Throop Three (pronounced Troop Tree) to the top of the dome of Throop Hall. The Glee Club would sing on the steps of beloved Throop Hall. Sadly, Throop Hall was damaged in an earthquake in 1971 and eventually demolished a few years later, after being on campus since 1915, during the earliest days in our current location.

In the late 60s and early 70s, we used to have a yearly program around here, called the Political Military Exercise (PME), commonly known as a CIA recruiting practice. In it, students and



## Let us know how we're doing

I see ASCIT's main job as serving as a line of communication between students and the administration. Last school year, I focused on strengthening the ties between ASCIT and various administrators and feel confident that if any sort of problem or concern were to originate in the school's administration, ASCIT would be notified in a timely fashion. Unfortunately, in the midst of attempting to build these bridges, the communication between ASCIT and the undergraduate body took a turn for the worse. Students were not always informed of important decisions that affected their lives and student

opinion was not surveyed as well as it could have been before these decisions were made. This next term is going to see the focus shift

in favor of frequent and timely dispatches through email, on the redesigned Donut webpage, and in this weekly column.

Todd Gingrich's column for the Tech was one of his best ideas as president. By writing a column such as this, he allowed the wide readership of the Tech, which includes graduate and undergraduate students, administration, faculty, staff, alumni, and friends of

*ASCIT has done a lot this past year. It's a shame that very few people know about it.*

the Institute, an insight into the workings of ASCIT and an idea as to what our priorities were. I hope to continue this idea, each

## President's Column

week focusing on a different issue affecting the student body and hopefully giving a little more insight into the administration's and my thinking on the subjects.

This past week also marks the introduction of the new Donut website. This represents the culmination of over a year of work and the result is quite impressive. We now have a much cleaner and better interface, the backend has been updated to a wiki system that should make it easier for us to keep it up to date, and all of the old features—price matching, the directory, the CLUE, and others—have been updated to work better and be easier to use.

ASCIT has done a lot this past year; it's a shame that very few people know about it. With the resumption of a weekly Tech column and the redesigned Donut webpage, I hope to give everyone a better view into the roles of ASCIT and the Caltech administration, but I can't do it alone. If there is anything that is troubling you or anything you feel the student body would benefit from knowing more about, please drop me an email and I will answer it in a future column. If nothing else, it means that I won't have to rack my brain on Friday night trying to come up with an idea for that week.

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# Hungering for a larger slice of pie

Caltech is the world's best school for science and math, bar none.

And it shows, too. Caltech handily trounces virtually every other college or university in head-to-head admissions yield comparisons. In other words, when a student is admitted to both Caltech and School X, the majority of these students matriculate at Caltech.

What is shocking, or at least disconcerting, is that Caltech statistically and consistently loses when School X is Harvard, Yale, Princeton, Stanford, or MIT.

How can Caltech make itself more competitive among the students that we admit and subsequently most actively recruit?

To begin, some of Caltech's most highly touted features are our 3-to-1 student-to-faculty ratio, the world-class research initiatives of our faculty, the accessibility of stimulating research opportunities for undergraduates, and the quirky, tight-knit undergraduate community in the student Houses.

How can these advantages be even more effectively leveraged to attract the best applicants and admitted students, particularly scholarship students?

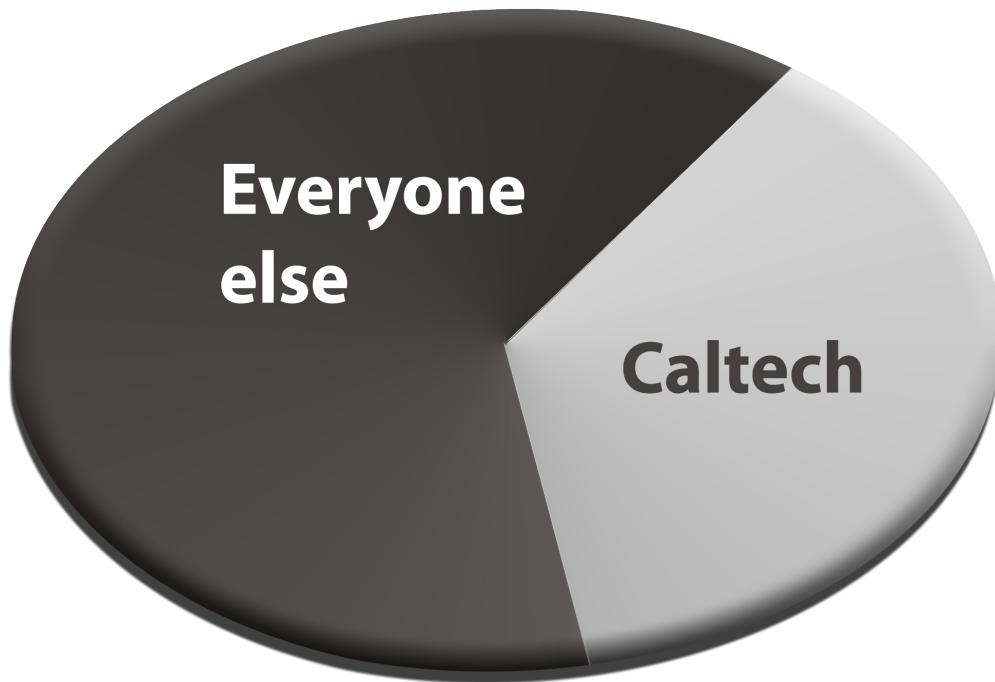
We suggest a multi-pronged strategy of early and targeted outreach to students who have proven ability in math and science. These three prongs are by no means comprehensive, but they have the potential to link together to form a strong foundation:

- 1) Identify and send written faculty congratulations to top performers in international- and national-level math, science, and engineering competitions in grades seven through ten.

- 2) Establish a prominent, exceptional, and competitive summer research program for students entering their senior year of high school, specifically targeting the students from the aforementioned competitions.

- 3) Match the previously identified students with Prefrosh Weekend host students from similar pre-college backgrounds who have continued to perform at Caltech, as indicated by continued recognition, such as receipt of academic awards or scholarships.

The first prong of this plan is al-



## How to keep the geniuses we accept.

most deceptively simple. It would involve identifying National MATHCOUNTS winners in the seventh and eighth grades, top performers in national Olympiad programs in all subjects, such as AIME and USAMO, in the tenth grade and earlier, and students in other demographics of interest.

All these types of students often continue to perform and become highly coveted college applicants. Therefore, early contact among these students would raise their awareness of Caltech well before they become applicants.

One way this can be accomplished is through a simple congratulatory letter from a Caltech professor in the student's field with appropriate follow-up from Caltech undergraduates.

In subsequent communication, these students could be encouraged to apply to the suggested summer research program. We envision an inaugural year that provides 10-15 rising high school seniors with a top-notch educational experience in such a summer research program.

Such a program was advocated in the Cain Report in 1985, and Caltech has hosted similar pro-

grams in the past, perhaps most notably in association with the Center for Excellence in Education. This program, called the Research Science Institute, has been hosted by MIT for the past two decades, while Caltech served as co-host in 2004.

Consider how such a program could raise awareness among target applicants. Sixteen of approximately 100 students across the Caltech and MIT campuses of the 2004 RSI matriculated at Caltech from across the country and around the globe. In all other years, an average of only three RSI students matriculated at Caltech.

Clearly, this year compares very favorably to other years; it is also coincident with a significant spike in the yield of Axline Scholars.

These students included winners of the Intel Science Talent Search and Siemens Competition, the two premiere competitions for high school students doing research in math, science, and engineering.

Undoubtedly, students researching at a preeminent Caltech program could produce high-quality

work and thus be in contention for such awards.

If such a program were to exist, a concerted effort must be made to widely publicize this program nationwide, particularly at math and science magnets schools nationwide. Furthermore, such a program should be designed to demonstrate the benefits of our small size and high quality research, such as the accessibility of research opportunities for talented students.

This could include involving applicants in the mentor matching process. This small group of students should be placed in and integrated into the undergraduate Houses, giving them an opportunity to interact with and appreciate our intimate undergraduate student community.

Finally, the Prefrosh Weekend host matching procedure is a refinement of what is currently done, such as the matching of athletes and people with similar expressed interests and personality traits. This could provide a shared background that can serve as a starting point for discussions between the host and prospective student about the Caltech edu-

tion and experience.

The second prong of this plan would be costly, both financially and organizationally. Furthermore, the fruits of these labors might not be realized for a number of years down the line. Yet Caltech already has part of the existing infrastructure to establish such a program, including the current Freshman Summer Institute and Axline SURF pre-freshman programs. Further, the SFP structure provides one possible starting point many aspects such as a program, such as a process that encourages early contact with the faculty mentor.

We also strongly believe that taking these three steps will pay off as a big leap in reaching out to pre-college students and attracting the best applicants; this plan would be part of the continual process of improving and expanding our methods of employing Caltech's most outstanding attributes.

We hope the value of these suggestions will be seriously considered, further refined, and formally implemented. An opportunity to benefit the future of math, science, and engineering is at stake.

Respectfully submitted,

Caleb E. Ng, ASCIT Director of Academic Affairs and ARC Chair

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# Friends still numbed by death

SKY, FROM PAGE 1

and American culture. Steve Kidder--another close friend--stood in my office and told us, but the words coming out of his mouth seemed altogether unreal. It was only after I started going around the department, finding fellow close friends and telling them, that the magnitude of our loss and the accompanying grief bowled me over."

Sky's family and friends cherish many fond memories of their time with him. Carolyn affectionately told of the time spent with Sky: "There are so many fond memories. I do keep thinking about what a wonderful uncle he was. Sky would engage in amazing and lengthy sword battles with his nephews, which absolutely delighted them. Also, when Sky visited me (I live near UC Berkeley, where he attended college), we would make Indian food feasts. It would take us hours, the kitchen would be a mess, and we would have so much time to chat, catch up with each other, and just relax. I will really miss doing that with him." Sky's death has left a hole in Carolyn's heart, she says. "The loss of Sky hasn't fully sunk in yet. It may never sink in. Losing a sibling feels like losing a piece of yourself."

When Amy Hofmann was asked about her fondest memory of Sky she said, "The entirety of my friendship with Sky. I don't think that it can be broken down into a superlative like 'fondest.' Sky thought deeply about the state of the world and his role and place within it -- we had many excellent conversations to this effect, and I know that that trait was one of the things I val-

ued most about him and about our friendship. He challenged people to think differently. He was also always game for the office pranks and practical jokes! Here's an example: I'm a Star Trek: TNG fan, and everyone in the office knows it. One morning I came in to discover my chair had been replaced by a more formal-looking chair with arm rests -- effectively a "captain's chair." I was a bit nonplussed but proceeded to sit down

North Mudd."

Like Carolyn, Amy is still overcome by the sense of loss. She said, "Sky's desk is next to mine, and all of his personal possessions in the office remain as he left them. The first few weeks following his death, it felt like everything was waiting, just waiting, for the right moment when he would return. I don't think the premature death of a friend ever fully sinks in. I know intellectually that he's not coming back, but I also know emotionally that I'll carry this with me for the rest of my life. I only hope that something positive, or several somethings, will come from all of this -- that would be the best testament to his character and his life."

Sky is deeply missed and appreciated by all the members of his research community at Caltech. His advisors Dr. Newman and Dr. Sessions express a similar sense of loss as Carolyn, Amy and Karla. Dr. Sessions said to *The Messenger*, "Beyond his outstanding work in the lab, Sky was also a natural leader among the students. His friendliness, humor, easy-going good nature, and willingness to help others earned him a great many friends here at Caltech. He was involved in organizing many of

the group's intellectual and social activities in our division, and in many ways was at the center of our small geobiology group (four faculty and approximately 15 grad students and postdocs). Sky's loss leaves a hole of tremendous breadth and depth right in the middle of our lives."

anyway. It was only then that I noticed the red, green, and blue paper with the words "Phasers / Warp Drive / Earl Gray, hot" that had been taped as a touchpad to one of the arm rests. Sky and one of our other office mates were laughing so hard they were practically crying at this point. It was hysterical and completely typical of how we operated in 108b

# Meeting, music rooms on hold

## SAC completion expected for mid-November

SAC, FROM PAGE 1

September. Pinnacle Contracting Corporation, which has worked with A&ES on several other projects, was hired for the project and began work during the last week of July.

Almost immediately, the project began to get off-schedule due to the discovery of mold in gypsum wallboard in the SAC. According to Norden, mold problems hadn't been seen in renovation projects on campus in "recent memory", so the discovery of mold was unexpected and A&ES wasn't sure how long remediation would take. However, he also said that when the contractors arrived on site, they noted that mold problems were likely, given the SAC's history of flooding.

In a week, mold was discovered, requiring that work be stopped while safety tests were done and the mold was removed. On August 10th, in an email to John Hall and Tim Chang, Norden, who has been supervising the contractors performing the renovations, noted that mold had been discovered both in the SAC and in a renovation of Avery bathrooms that was occurring at the same time. Due to the need to have the air filtered and then independently tested after the mold was removed, he pre-

dicted that as much as two weeks had been lost.

On September 3rd, Norden informed Hall that a second pass of mold removal was needed in the SAC and that there would be further delays as a result. Hall passed this information on to Chris Gonzales, the ASCIT President.

According to Hall early last week, "I understand those [mold issues] have been resolved and the project is progressing normally." Norden predicted that, due to the time lost in dealing with mold, the renovations will now be complete by sometime in November. Despite the delays, Norton had only positive things to say about the contractors, who he said were "doing a good job".

Besides the ASCIT screening room, the renovated SAC will include a dark room, a dedicated room for the Phys 1bc practical track electronics labs, a room for the ASCIT DDR machine, and two group study rooms and a general purpose room with sinks (formerly the silk-screening room, no longer needed since silk-screening equipment has been moved to the Art House on Hill).

Besides being used as areas for studying, the group study rooms can be used as meeting rooms for clubs, which have had difficulty finding space to meet during the South Houses renovation, es-

specially since the ASCIT trailer was lost when the Mods were removed at the end of first term last year. Jamie Jackson, president of the Caltech Newman Center, said "We're having some trouble finding a good, nearby room to meet. Study rooms in the SAC would be great."

The renovated SAC will also host rooms for use by ASCIT, just as it did before the South Houses renovation. The BoC will have a room, and ASCIT and the IHC will have a meeting room. The Tech, which has been homeless since the ASCIT trailer was closed, will have offices and a library for its archives. The delays have forced changes in the Tech's plans to move into its new offices before the start of the school year, and the newspaper will continue to operate out of the UGCS computer lab for the next month or two.

The major permanent space loss due to the SAC renovation was to storage. Very little storage for students or Houses will be available in the renovated SAC, as rooms formerly used as storage have been converted to mechanical rooms. It is possible that some of this space may be reclaimed by partitioning rooms, but administration has been unable to promise anything.

# Rankings 'silly,' but helpful

RANKINGS, FROM PAGE 1

according to Director of Admissions Rick Bischoff.

"It's kind of silly, the whole notion that you can line up a bunch of really outstanding colleges and say this one is better than that one," said Bischoff. However, Caltech isn't about to join the scores of colleges who now abstain from the rankings. "The attention certainly doesn't hurt us."

In addition to concern over the perceived value of the ratings, some of Caltech's peculiar characteristics conflict with the values embedded in the ranking systems. U.S. News weighted the graduation and retention rate at 20%, a metric on which Caltech has traditionally scored several percentage points lower than similar schools.

"We're willing to have a slightly lower graduation rate," said Bischoff, "U.S. News shouldn't be driving how we behave."

# Profs win MacArthur

BY NATALYA KOSTANDOVA

Last week, Paul Rothemund, a senior researcher in computation and neural systems, and Michael Elowitz, assistant professor of biology and applied physics and Bren scholar, received phone calls out of the blue. The unexpected voice at the end of the line told each of the Caltech faculty members they were getting half a million dollars to do whatever they wanted for five years, courtesy of the MacArthur Foundation.

To Rothemund, it was almost a mystical experience, as he had been coincidentally thinking about the bearer of the good news, Don Hopkins, not long before the call. Hopkins and Rothemund met at a conference last year and Rothemund had been looking forward to talking to Hopkins again.

"It was sort of like telepathy," said Rothemund. "I wanted to talk to him, and he called me anyway. I didn't know why he was calling me."

Elowitz was similarly clueless about the award. "I was just dumbfounded, befuddled," he said in an interview with Caltech PR. "It just wasn't something that I thought about, and it was out of the blue."

Elowitz and Rothemund were among 24 individuals chosen this year as MacArthur Fellows. The fellows are not limited to scientists and are recognized for their potential to make a difference in the world.

Although neither of the recipients yet have a definite plan for the cash award, Rothemund considers the possibility of using it to pursue some of his collaborations in the Bay Area.

Rothemund, who received B.S. in biology and engineering from Caltech and PhD from USC, originally became interested in DNA self-assembly as a part of a CS 20 class that he took while at Caltech.

Keeping in mind an ultimate goal of having molecules in particular DNA, that can be programmed like computers, Rothemund proceeded to develop a technique that he calls "scattered DNA origami," which involves creating nanoscale patterns and shapes, as diverse and unusual as smiley faces, snowflakes, and map of the Americas. For Rothemund, there are three designs that have a special place in his heart.

The first shape formed by the DNA was rectangles, which was very exciting for Rothemund,

To Rothemund, it was almost a mystical experience, as he had been coincidentally thinking about the bearer of the good news, Don Hopkins, not long before the call. Hopkins and Rothemund met at a conference last year and Rothemund had been looking forward to talking to Hopkins again.

"It was sort of like telepathy," said Rothemund. "I wanted to talk to him, and he called me anyway. I didn't know why he was calling me."

Elowitz was similarly clueless about the award. "I was just dumbfounded, befuddled," he said in an interview with Caltech PR. "It just wasn't something that I thought about, and it was out of the blue."

Elowitz and Rothemund were among 24 individuals chosen this year as MacArthur Fellows. The fellows are not limited to scientists and are recognized for their potential to make a difference in the world.

Although neither of the recipients yet have a definite plan for the cash award, Rothemund considers the possibility of using it to pursue some of his collaborations in the Bay Area.

Rothemund, who received B.S. in biology and engineering from Caltech and PhD from USC, originally became interested in DNA self-assembly as a part of a CS 20 class that he took while at Caltech.

Keeping in mind an ultimate goal of having molecules in particular DNA, that can be programmed like computers, Rothemund proceeded to develop a technique that he calls "scattered DNA origami," which involves creating nanoscale patterns and shapes, as diverse and unusual as smiley faces, snowflakes, and map of the Americas. For Rothemund, there are three designs that have a special place in his heart.

The first shape formed by the DNA was rectangles, which was very exciting for Rothemund,

# Revamped Rotation simplifies rules

## IHC holds information sessions to answer questions about houses

BY SONIA TIKOO

Following last year's revamp of the rules and ranking systems of Rotation, student leaders are hopeful that their experiment will prove fruitful. Although the basic nature of the institution remains the same, a number of particulars were changed last year in an effort to make the rules easier to follow.

In addition, a number of changes were made to the Rotation proceedings, with the IHC taking a larger role in helping prefrosh during their first week at Caltech. This week marks the first Rotation conducted under the new system.

In the past, upperclassmen were expected to adhere to a set of strict "Rotation Rules," that dictated courses of action when interacting with incoming students. These ranged from simple actions such as not berating other Houses to rules prohibiting up-

perclassmen from taking prefrosh off campus for duration of longer than three hours.

This scheme had been in place for many years, but was not without its problems.

"The rotation rules, as they used to be formulated, were eight pages of 'you can do this, you can't do this,' and so on," explains Inter-house Committee (IHC) Chair Michael Woods. "As a result, nobody read all of them; they could have been a lot more efficient."

Former IHC Chair Craig Montuori said, "Last year's IHC had a list of a bunch of ideas. Rotation rules had gotten too complex and were creating too much worry that a violation on an unclear rule would result in punishment to a student's entire House. These ideas were discussed over the next few months and then passed along to the next year's IHC to edit them, change them, or ignore them. Through it all, there was input from [Assistant Vice-President of Student Affairs] Tom Mannion.

We held an open house to discuss possible issues with the students around May, and this year's House presidents took comments and criticism from members of the Caltech community."

This process led to the IHC completely rewriting the Caltech Rotation Rules, taking them from their former eight-page laundry list to a new simplified form: the Rotation Code and the four "Laws of Rotation." The newly formed Rotation Code states that the goal of Rotation is to "allow new students and Houses to arrive



Prefrosh and upperclassmen mingle in Fleming on Saturday.

at accurate representations of each other. Following this serves the purpose of best matching new students with Houses." The "Laws" are as follows:

1. Rotation participants are prohibited from unfairly biasing new students toward or against a

Please see ROTATION, Page 10

Photo by Jonathan Tsai

## No boring people, please



Photo by Jonathan Tsai

James Watson, co-discover of the helical nature of DNA, was more comedian than scientist at his book promotion of "Avoid Boring People" last week. See book review in next week's issue.

## Closing the energy gap at Caltech

### Lectures to encourage response to global energy crisis

BY MARISSA CEVALLOS

Leading scientists in chemistry, physics, and environmental sciences will discuss solutions to the global energy crisis, from solar energy to wind power, in a Friday afternoon lecture series held in Baxter.

Each week, one Caltech professor and one outside expert will highlight the problems in a particular effort, like burying carbon dioxide in the Earth or storing gas and coal as liquids.

A good talk, says organizer and Caltech solar energy researcher Nathan Lewis, will say "here's what we know how to do, but this is what we don't know how to do."

Steve Koonin, former Caltech professor and current Chief Scientist of BP, will kick off the series on Oct 5 with a sweeping overview of the proposed solutions to clean, renewable ener-

### Quick Facts

What: Lectures to inspire solutions in energy research

Where: Baxter Lecture Hall

When: 2-3 PM every Friday from Oct 5 until February

gy—especially as oil companies see it.

"The idea is to stimulate the interests of faculty, post-docs, graduate and undergraduate students," said Lewis. "We wanted to get speakers who could get to the forefront of the challenges in all aspects of energy."

Before Christmas, lecture-goers can expect to hear about inorganic mimics of photosynthesis from Harry Gray and converting sunlight into electricity and heat from Harry Atwater. The series will ten-

tatively run into February. Caltech's Energy Advisory Committee, who set up the series, is also considering creating a major or minor in energy sciences. Combined with grants and SURFs in energy research, Lewis thinks building green architecture—cleverly designed with natural ventilation and sunlight—is a challenge Caltech can tackle. "Maybe there are cute things that we can do that architects don't know about," says Lewis.

The professor who devotes his research group to finding low-cost energy solutions can't imagine a worthier cause.

"It's the biggest challenge," says Lewis. "No oil, no air—what do you do? First rate research institutions have got to do something about it."

## News Briefs

### Want money?

The Alumni Association (AA) co-sponsors activities every year, like the Chinese New Year festival and Semana Latina on Cinco de Mayo. All it takes is a well-written proposal sent two months in advance, says AA president Bob Kieckhefer '74, and a student club can have hundreds of dollars for surfing lessons on the beach or a night of hot chocolate and ice skating.

### Rideshare Fair on Friday

The area outside of Chandler becomes a Renaissance Fair this Friday, with ladies in flowing gowns, music, food, freebies and medieval archery games.

The lunchtime fair, organized by RideShare, Graphic Resources, and Mail Services, will raffle off prizes—including a \$360-value carpool parking permit, iPod Nano, DVD player, and Trader Joe's gift cards—for

"We want students to get used to asking for money," says Kieckhefer. The fund has co-sponsored Greek in the Spring, the China Moon Festival, ballroom dancing competitions, Gradiators, and alumni vs. student water polo games. Interested clubs should contact Karen Carlson at karen@alumni.caltech.edu or visit [http://alumni.caltech.edu/student\\_funding/](http://alumni.caltech.edu/student_funding/).

pledging to walk or bike to work at least once during Rideshare week.

Raffle tickets will be sent in the mail to all Caltech personnel, including undergrads, grad students, faculty, and staff. Contact Kristina Valenzuela, Transportation Coordinator, at ext. 4729 or Kristina.Valenzuela@caltech.edu for more details.

### Noms open for Feynman prize

Students have from now until December 30, 2007 to nominate a professor for the 2007-08 Richard P. Feynman Prize for Excellence in Teaching. Nomination packages are to be submitted to the Provost's Office to honor a professor who demonstrates, in the broadest sense, unusual ability, creativity, and innovation in undergraduate and graduate classroom or laboratory teaching.

The Feynman Prize is made possible through the generosity of Ione and Robert E. Paradise, with additional contributions from Mr. and Mrs. William H. Hurt. Nominations for the Feynman Teaching Prize are welcome from faculty, students, postdoctoral scholars, staff, and alumni.

All professorial faculty of

the Institute are eligible. The prize consists of a cash award of \$3,500, matched by an equivalent raise in the annual salary of the awardee. A letter of nomination and detailed supporting material, including, but not limited to, a curriculum vitae, course syllabus or description, and supporting recommendation letters

should be directed to the Feynman Prize Selection Committee, Office of the Provost, Mail Code 206-31, at the California Institute of Technology, Pasadena, California, 91125.

Additional information including guidelines for the prize and FAQ may be found at <http://provost.caltech.edu/FeynmanTeachingPrize>

**the**

# Best of

## Caltech, Pasadena, and LA

The best places to enjoy good eats, sun, and nightlife, brought to you by Dannah Almasco

### Walk during the day



**<< Historic Hollywood Boulevard** — Walk the star-studded walk of fame, admire the 200 and some hand- and foot-print collage in front of the Mann's Chinese Theatre; afterwards, shop and eat at Hollywood and Highland.

**— Venice Boardwalk** — Enjoy this eclectic beachfront boardwalk filled with street performers, quirky tourist shops and outdoor eating, along legendary Venice Beach.

**• Griffith Park** - Dubbed the largest city park in the country, includes museums, a zoo, observatory and breathtaking views of Los Angeles and the Hollywood Sign.

### Walk around at night

**• Old Pasadena** — Take a night stroll around Old Pas and discover the many hidden restaurants, cafes, shops, and street musicians.

**• Santa Monica Pier** - CA's oldest amusement pier, this nighttime playground is complete with an arcade, ferris wheel and roller coaster brilliantly lit up along the ocean.

**• The Grove and Farmer's Market** — A beautifully landscaped outdoor mall (with movie theater) adjacent to the historic Farmer's Market will give you plenty to do; even the bathrooms are an experience!

### Catch a wave

**• Zuma Beach** — LA's best beach for surfing.

**• Dockweiler Beach** — The only beach in LA that allows you to have bonfires.

**• Huntington** — It's a hefty drive away, but it's relatively less crowded than other beaches.



### Enjoy a frozen treat

- Cold Stone Creamery on Lake — There's a reason why the portions are served in amounts of affection.
- 21 choices — This favorite frozen yogurt shop in Old Pasadena is so busy, save time by going online to view the current daily choices of the day before your visit.
- Gelato Di Roma — It's very difficult to walk past the shop window displaying mounds of 51 different award winning gelato flavors.

### Find neat stuff

- PCC Flea Market — Held every first Sunday of the month 8am-3pm, most Techers sleep through this golden opportunity for unique and cheap finds.
- Rose Bowl Market — A Pasadena tradition held every second Sunday of the month, this giant flea market at the Rose Bowl ensures you to find anything you're looking for, and then some.
- LA Fashion District — A bargain hunter's dream, this 56-block clothing district is in the heart of Downtown LA.

### Sip a coffee

- Peet's Coffee & Tea — This quaint coffee chain is neighbors with Noah's Bagels on the corner of California and Lake.
- Equator Café — The exotic menu, live bands, bohemian décor and internet café is the epitome of hip.
- Zeli Coffee Bar — A small place attached to Vroman's Bookstore with free wireless internet.

### Buy groceries

- Trader Joe's — The healthy choice in grocery shopping; great for vegetarian, organic and gourmet foods...plus the fresh flowers are cheap!

- Pavilions — Someone you know most likely owns a Pavilions ValuePlus Card.

- Smart and Final — A warehouse grocery store, get more bang for your buck.

- Tiger Heat — Put on your dancing shoes and party to pop music on Thursday nights at Arena in Hollywood.

### Go dancing

### Buy groceries

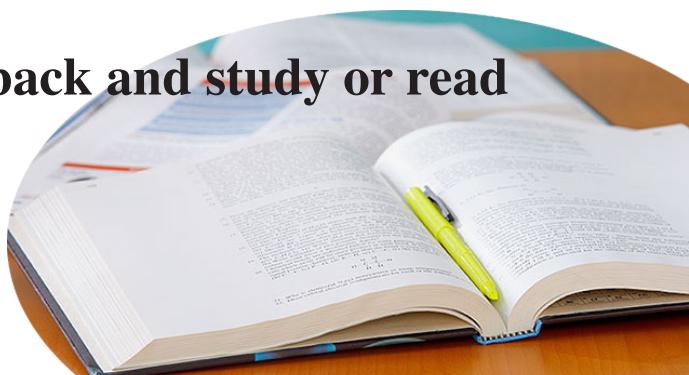
- Level 3 — Kiss FM's nightclub (18 and over every Thursday and Saturday) has a strict dress code and spins current hip-hop and pop hits.
- The Ruby — Also known as Beat It on Sunday nights has 3 different rooms with different styles: 80s, indie and hip hop; print a flyer from online and get in for only \$5.

- Tiger Heat — Put on your dancing shoes and party to pop music on Thursday nights at Arena in Hollywood.

### Grab some food late at night

- Denny's — Open 24 hours and located on E. Colorado, Denny's is a perfect late night pick-me up.
- Original Pantry Café — Techers depart for Pantry runs at 2:45am to arrive in downtown LA at 3 am, when the greasy breakfast food menu is available.
- Mel's Drive-in — This 50's style diner will take you back in time with jukeboxes at every table; but with locations in Hollywood and West Hollywood, this 24-hour diner can get pretty busy even in the wee hours of the morning.

### Kick back and study or read



- Sherman Fairchild Library on campus — Pick between the silent 2nd floor with private study rooms or the cozy 3rd floor.

- Starbucks on Lake and California — If you can snag a table, this is a great place to study, and the caffeine's easily accessible!

- Border's on Lake — As quiet as a bookstore with indoor café can get.

### Admire art

**<< Huntington Library, Art Collections and Botanical Gardens** — Spend an entire day exploring 120 acres of gardens, admiring art, rare books and manuscripts for only \$10 (with your Caltech ID).

**• The Getty Center** — The collection exhibits Greek and Roman antiquities, French decorative arts, European paintings and other works of art, while the museum's architecture itself is a masterpiece.

**• LACMA** — The Los Angeles Contemporary Museum of Art has over 150,000 works from ancient times to the present.

# Grad student is Wiki'd controversial

The man who embarrassed multi-million dollar corporations with WikiScanner now enters Caltech as a first year graduate student--is he as good at science, he wonders, as he is at creating mischief?

BY NATALYA KOSTANDOVA

Virgil Griffith had his share of interesting experiences before coming to California as a graduate student. The Alabama native managed to be charged under the Espionage and Sedition Act, be featured on the Colbert Report, devise a tool to be used by the largest multilingual encyclopedia on the Internet, and cause significant scandals involving several multi-billion organizations while graduating cum laude from University of Alabama.

Griffith, often referred to as Rompoet among fellow hackers, is best known for his development of the WikiScanner, the public relations nightmare which traces

was probably it. [...] I lost all my money in the lawsuit and I had to drop out of school, so that was pretty exciting."

The following year, Griffith transferred to Indiana University, although he came back to U of Alabama to graduate this summer.

The lawsuit did teach Griffith to be careful with the legal aspects of his projects. "It's very important to be legally mindful when you're doing something disruptive," said Griffith. "Any time you have a project that will make people look bad, or especially jeopardize company's revenue stream, you must talk to the lawyer first."

Taking his own advice in case of the WikiScanner, Griffith was able to design the tool in such a way so as to protect himself from potential lawsuits. So far, the software has caused several public disputes, including those involving PepsiCo, Diebold, the CIA, and others, and was embraced by Jimmy Wales, founder of the Wikipedia, as a "very clever idea," as reported by New York Times.

Aside from securing a No. 2 spot on a Google search for 'Virgil,' one spot below the Wikipedia entry of the real Roman poet, the WikiScanner also highlighted him in the New York Times, the Wired News, and on the Colbert Report.

At Caltech, Griffith, who is interested in consciousness and artificial intelligence and finds brain to be "the hip thing that everyone is doing," will study computational and neural systems. However, as he plunges into his graduate experience, Griffith does not plan to limit himself to academic pursuits.

"I fear I may be much, much, much better at creating mischief on the Internet than at science," said Griffith. "I decided I'm going to be splitting my time about 70% science, 30% mischief for the next year, while before it was about 95% science and 5% mischief."

Ultimately, he hopes to do research or work for Google, the latter having several perks that particularly appeal to him.

At Google, "You're treated like a king," said Griffith. "They have infinite coffee, infinite chocolate, infinite tea, infinite little yogurt, really anything. They have little kitchen that is always being restocked, so you have cereal and all of that. They even have a place to do your laundry and a shower, so if you get tired or you think best in the shower, you just take a shower in the middle of the day." Currently, Griffith is working on another project that he promises to be "cute" and "hilarity incarnate." He expects it to be concluded in about a month.

*"I was playing Zelda and I got all the way to the third dungeon, the water dungeon, and it was very hard. I got very frustrated at the puzzle, I still haven't beat it, so I had to go do something else. And that's the only reason that the WikiScanner exists, because that dungeon is too hard."*

back anonymous edits of Wikipedia entries to corresponding IP addresses and organizations that they are associated with, allowing users to uncover cases of companies, businesses, politicians, and others editing their own entries in a way that benefits them.

Although WikiScanner caused quite a commotion after its August release, it owes its existence to a less controversial source of inspiration – the Nintendo Wii.

"I was playing Zelda and I got all the way to the third dungeon, the water dungeon, and it was very hard," explained Griffith. "I got very frustrated at the puzzle, I still haven't beat it, so I had to go do something else. And that's the only reason that the WikiScanner exists, because that dungeon is too hard."

Creating the WikiScanner was not, however, the most exciting time in Griffith's life. During his freshman year at University of Alabama, Griffith along with Billy Hoffman discovered a flaw in magnetic ID card swipes used on campus. Planning to discuss the flaws at Interz0ne, an annual technology convention held in Georgia, Griffith and Hoffman traveled to Atlanta, where they were issued a cease and desist order two hours before giving the talk.

"That was pretty scary, getting suits filed against you that have names like the Espionage and Sedition Act.," said Griffith. "Those are very scary words that I haven't seen for a very long time. In terms of raw terror, that



Virgil Griffith, a first year grad student in computation and neural systems, was inspired to create WikiScanner after failing to beat a level of Zelda.

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#### CONTACT:

KAUST Scholarships c/o IIE  
520 Post Oak Boulevard, Suite 740  
Houston, TX 77027  
Phone: 713.621.6300 x23

# Soccer suffers narrow 1-2 loss to Whittier

BY RAM KANDASAMY

While many Techers have been on vacation, the Men's Soccer Team has been back on the playing field for over a month.

The team is lead this year by senior team captains Nathan Chan and Brandt Belson.

Nine new faces join the roster this year, with many of them making significant contributions right away. Promising freshmen include left defender Grayson Chadwick, right defender DJ Seo, forward John Yueng and wing Rebecca Stoltz, according to sophomore Brian Yu.

The early results of the season have reflected the promise of the team. The Beavers' best performance came against Chapman University on Sept. 21, when it tied the visiting Panthers 0-0 after two overtimes.

"We had some chances to score," junior Pradeep Bugga recalled "but it was our defense [that] played well."

Another highlight of the season was the team's 0-2 defeat on Sept. 12 at the hands of Redlands, a perennial contender for the conference.

The trademark of these two signature games has been the Beavers' defense, which held an explosive Bulldogs team to just two goals and shut-out a decent Chapman team.

"We are definitely not getting scored on as much," senior Mario Roa commented.

Wednesday's narrow 1-2 defeat to Whittier was considered by both Bugga and Yu to be the most disappointing loss so far.

The team defeated Whittier 2-1 last year in an away match, which then ended a losing streak that stretched for two seasons.

Both agreed that the team had chances to win the match but could not convert.

The letdown led to a seemingly uninspired effort – the team lost 0-6 at Pomona Pitzer Saturday, its second largest margin of defeat this season.



Photo by Matthew Glassman

Grayson Chadwick, frosh, slide tackles the ball playing defense in the loss against Whittier.

## Women's volleyball seeks first conference win

BY YANG YANG

"We are going to win our first conference match [this season]," team captain Sarah Stidham declared. "We are going to win."

The Caltech women's volleyball team backed up its captain's certainly with a surprising 2-0 lead against La Sierra in its home opener on Sept. 6. With the team up 28-26 in the third game, however, things began to turn – like they often do – against the Beavers.

"We just missed serves and missed hit," team captain Sarah Stidham recalled. "[La Sierra's] play also picked up after the third game."

Although the team ended up losing 2-3, the auspicious start and an influx of talented freshmen have the team yearning for its first conference win ever.

Captains Stidham and Erin White return for their senior season, in which they hope to score Caltech volleyball's first win in SCIAC conference play. Although both have been wracked with injuries – Stidham suffered a concussion during the first game of the season while White has sat out several matches with

various strains – they are determined to get that victory.

They are backed by returning players junior Marie Giron and sophomore Lisa Yee, who currently leads the team in kills.

"Lisa is just a phenomenal hitter and blocker," Stidham said. "she jumps so high during warm-ups you could see the other team whispering to themselves and pointing at her."

A trio of freshmen round out the starting line-up: Sarah Griffis, Katie Peters and Ying Ying Tran. All three, unlike many other Caltech athletes, bring years of high school play to a program which lacks such experience.

"Not playing volleyball wasn't even an option for me," said Peters, who played all four years in high school. "I love the sport and even though I knew it wouldn't be the highest caliber in terms of a record, I was impressed when I saw how hard all the girls worked."

So far, Peters has been the most vocal of the three. According to Giron, Peters is a very positive player whose mood can improve those around her. Stidham believes the team has found a leader for years following.

"She will be captain next year,"

Stidham said. "She is very vocal and good at inspiring the team."

Despite being a four-year volleyball player in high school, Tran did not expect to play much this season.

"One preconception I had [before the season] was that I would be too short to see much playing time, if any, but I guess not," she said. "I also thought coach [Burl] would be much stricter, demanding that volleyball be top priority, but I've found that it's not true at all. She's flexible, and cares about her players' health and personal lives more than our record."

Griffis, expecting the stereotypical Caltech athletics experience, has been surprised at the team's progress.

"I knew the Caltech reputation in sports," she said. "So I expected worse. I actually have been pleasantly surprised with how well we all play together, considering the varying levels of experience."

Although the team remains winless so far, the Beavers played extremely well against Pomona Pitzer Saturday, according to Stidham. The team lost in straight sets 19-30, 13-30 and 21-30, but remained competitive in the first and the last game.

## Riverside Invitation, Sept. 29

### Men's:

Matt Kiesz	26:38.10
David Rosen	27:24.10
Anton Karrman	27:28.10
Sachith Dunatunga	29:03.80
Ben Flora	29:20.50
Steve Horikoshi	30:54.30
Andrey Poletayev	31:25.10
Nathan Lau	31:39.20
Garrett Drayna	32:10.40
Chris Schantz	32:21.30

### Women's:

Sam Smiley	19:59.30
Stephanie Wuerth	20:03.70
Justine Chia	20:33.50
Katherine Breeden	20:35.10
Perrin Considine	21:16.40
Masha Belyi	22:07.10
Natalya Kostandova	22:09.70
Bettina Chen	22:55.10
Sarah Stokes	23:03.80
Heather Widgren	23:45.70

BY YANG YANG

It looks to be a year of rebuilding for the men's water polo team as the Beavers field only four returning players with 11 years of combined experience.

Senior team captains Erin Flanagin and Tom Oliver are joined by returning seniors Brian Kearns and Sean Mattingly.

Besides the senior foursome, the Beavers are filled with play-

ers in their first year of college water polo.

The inexperience showed in a 4-23 loss to Chapman University in its season opener. Freshman Paul Fleiner's two goals in his first ever water polo game to lead the Beaver offense. According to Fleiner, he "just got lucky."

"Due to frosh camp and other retreats, we haven't been able to practice as a team for the last week and a half, it was hard to go in prepared," Flanagin said.

"But given that we lack a lot of the experience, we were able to keep up with Chapman."

The Beavers played Chapman again on Saturday and improved from their first outing to lose only 10-20.

Despite the youth, Flanagin has high hopes for the upcoming season.

"We're well conditioned and we should be able to step up our game and play well this season," he said. "it should be fun for the seniors on the team."

## Youthful water polo begins SCIAC

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## Booklets to give prefrosh a flavor of each house

**ROTATION, FROM PAGE 5**

House in a way that violates the Honor Code or goes against the spirit of Rotation.

"2. Upperclassmen may not provide special or extraordinary favors or services to new students. This includes alcohol and other psychoactive and controlled substances.

"3. No upperclassman or new student should discuss rating strategies or past or future student picks procedures.

"4. Any remaining questions or concerns must be addressed by the IHC."

Alongside changes to the written rules have come new additions to the Rotation experience, the first of which took place at Frosh Camp last week. Formerly, the IHC Chair would simply present a 10-15 minute talk about Rotation and its procedures before prefrosh. This year, this presentation was extended to include a one hour long question-and-an-

swer session.

A second revamp involving Frosh Camp was the removal of House skits from the program. Formerly, Frosh Camp representatives from each house would put on entertaining demonstrations intended to convey their House's respective sense of humor. Instead, House skits were performed Thursday night on campus. Reasons behind this move included the desire to include more upperclassmen from each House in each production, as well as to move the skits temporally closer to the start of Rotation to increase the cohesion of the week's procedures.

Filling in the time formerly taken by the House skits was a music and arts rally organized by Team Tech, a new campus group that uses newly granted Moore-Hufstedler (MHF) funds to encourage more involvement in extracurricular activities and attendance at student events. The

Team Tech presentation at Frosh Camp included information sessions and performances by One-Act Theater as well as selected campus music groups.

Another new addition included the creation of Rotation Information booklets, which were handed out to prefrosh just prior to their return to Caltech from Frosh Camp. According to the IHC Chair, these booklets serve to "give every freshman the first impression of the Houses that the Houses want to be delivered." The booklets consist of a series of installments discussing the history, traditions, and culture of each undergraduate House. This is distinct from the traditional House "propaganda" freshmen have received each year, which are meant to be entertaining rather than educational.

Capping off the "new Rotation" is a series of question-answer sessions scheduled with the IHC. Monday thru Friday, the entire

IHC will be in the Ricketts-Fleming Courtyard from 3:00-3:30 PM so that prefrosh may ask questions regarding Rotation procedures as well as to check the veracity of any rumors they may have heard about any Houses over the course of their stay. In order to encourage student participation, Caltech Dining Services Director Peter Daily will be providing free snacks and drinks, as the meeting times coincide with standard open kitchen.

With all these changes comes a call for added responsibility from the former IHC Chair. Montuori advises, "The students make Rotation. Whether it succeeds, fails, or is changed is entirely up to the student body."

[Editor's Note: A controversial change to Rotation was eliminating the ability to blackball a house, a feature that let prefrosh cross off three houses with the guarantee of not ending up in the house.]

## Write for The Tech!

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The California Tech website features a large masthead with the title 'THE CALIFORNIA TECH'. Below it is a navigation bar with links to Home, News, Humor, Features, Sports, Opinion, Arts, and a Google Custom Search bar. On the left side, there's a sidebar with links to About Us, Current Issue, Previous Issue, Online Archive, PDF Archive, The Staff, and Advertisers. A thumbnail of the previous issue of the newspaper is also shown. The main content area has a 'Home' section with a photo of Jean Lou Chameau and a story about his first year. It also includes sections for 'A year in the life of Jean Lou Chameau', 'News writing to be offered', 'Caltech inches up in US rankings', 'The Caltech Po Loh Dynasty', and 'Hungry for a larger slice of the pie'. A sidebar on the right is titled 'Caltech Today' and 'Other Items'.



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# Dr. Quark

## Solves your petty problems with Science!

Dr. Quark,

My roommate keeps having sex with this one chick. She's pretty hot and all that but I just don't like the idea of my roommate having sex. In my room. All the time. And sometimes in my bed. How do I deal with being exiled?

Lone Lee

It is my professional opinion as a scientist that you should approach the situation as passive aggressively as possible. Remember, no one likes confrontation, so at all costs do not discuss this with your roommate, or talk about how you feel, and definitely do not try to solve this with a so called "compromise".

I suggest sending subtle messages that are difficult to pick up on. If your roommate is of the Christian faith you could try placing statues of the virgin Mary around his bed, statues that will always be watching with sad

disapproving eyes.

Why do you object so much to your roommate having sex anyway? It sounds like you're a little jealous about being excluded. Maybe the next time your roommate is having sex in your bed, ask if you can join in, after all it is your bed and nothing is more fun than an adventure to new and unexplored territory!

Have you even stopped to think of the plethora of options you have when it comes to exploiting the situation for your own financial gain? You could easily create video evidence of said acts and then ??? and profit!

My final suggestion is retaliation. Get your own girlfriend and have sex on your roommate's desk. While he's doing a set. An hour before the set it due. Have you ever tried doing a set when there's a writhing mass of two squirming bodies in the middle of your workspace? My very scientific analysis indicates that you haven't, but let me assure your worries, it will be quite difficult.

With any luck your roommate will flame out and you won't be bothered anymore.

Dear Dr. Quark,

Last term I stayed up late studying for a final, and the next day when I was working in lab I was so tired that I by mistake drank some of the radiative mutagen in the hood instead of my usual Kool-Aid (Oh Yeah!). Now I am able to see into the near future. Is it ethical if I look into the future to see what grade I receive on a final, and study harder if it is not within acceptable bounds?

Mar T. McFly

You might as well ask if it is ethical for you to make me a delicious club sandwich with pickles. Obviously I think that this is very ethical, but what does the anti-sandwich agenda have to say about that? Scientifically I find the number of people out there who

have a thing against sandwiches to be absolutely ridiculous. Sandwiches are a wholesome eating choice the deficiency of which is what is ailing our nation.

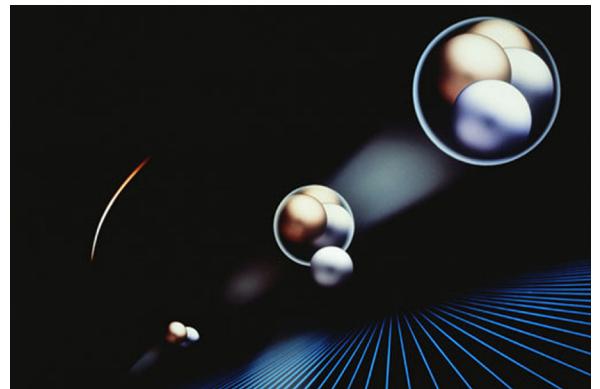
While you're at it you might want to use your clairvoyance to see into the future to check on if you're going to get BoC'd. It's actually a little known fact that the BoC chair will have a run in with a nasty spot of mutagen and gain the super ability to see into the past. When he looks into the past and sees you looking into the future, not only would it be very confusing, but would probably result in a present where you are served up a notice from the BoC, stuffed into a black bag and never seen again. If black bags are your thing, then I'd say go for it.

Your question brings to mind the possibility that a time paradox. What if by finding the grade you will receive you are encouraged to study harder, someone finally procreates with you, you have a grandson who travels backwards in time to meet you,

and then you're hit by a maglev train. Now you're dead, how do you like that? All because you cheated. Cheater.

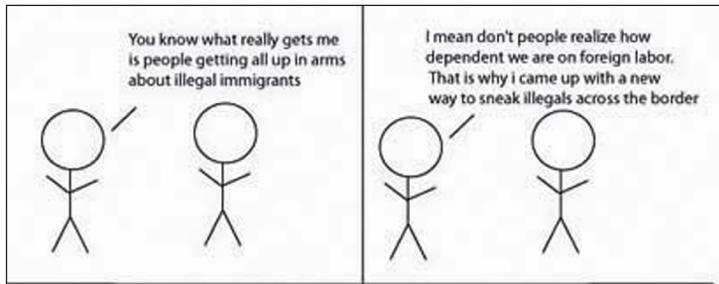
*Dr. Quark has been awarded the R. K. Brauwre award for lifetime achievements in relationship psychology.*

Do you find yourself walking through life alone and without guidance? Are you a mindless sheep who will take advice from random quack who writes an advice column in a newspaper unfit for bathroom tissue? You too can ask Dr. Quark your real questions by emailing them to drquark@gmail.com, where Dr. Quark will really answer them!

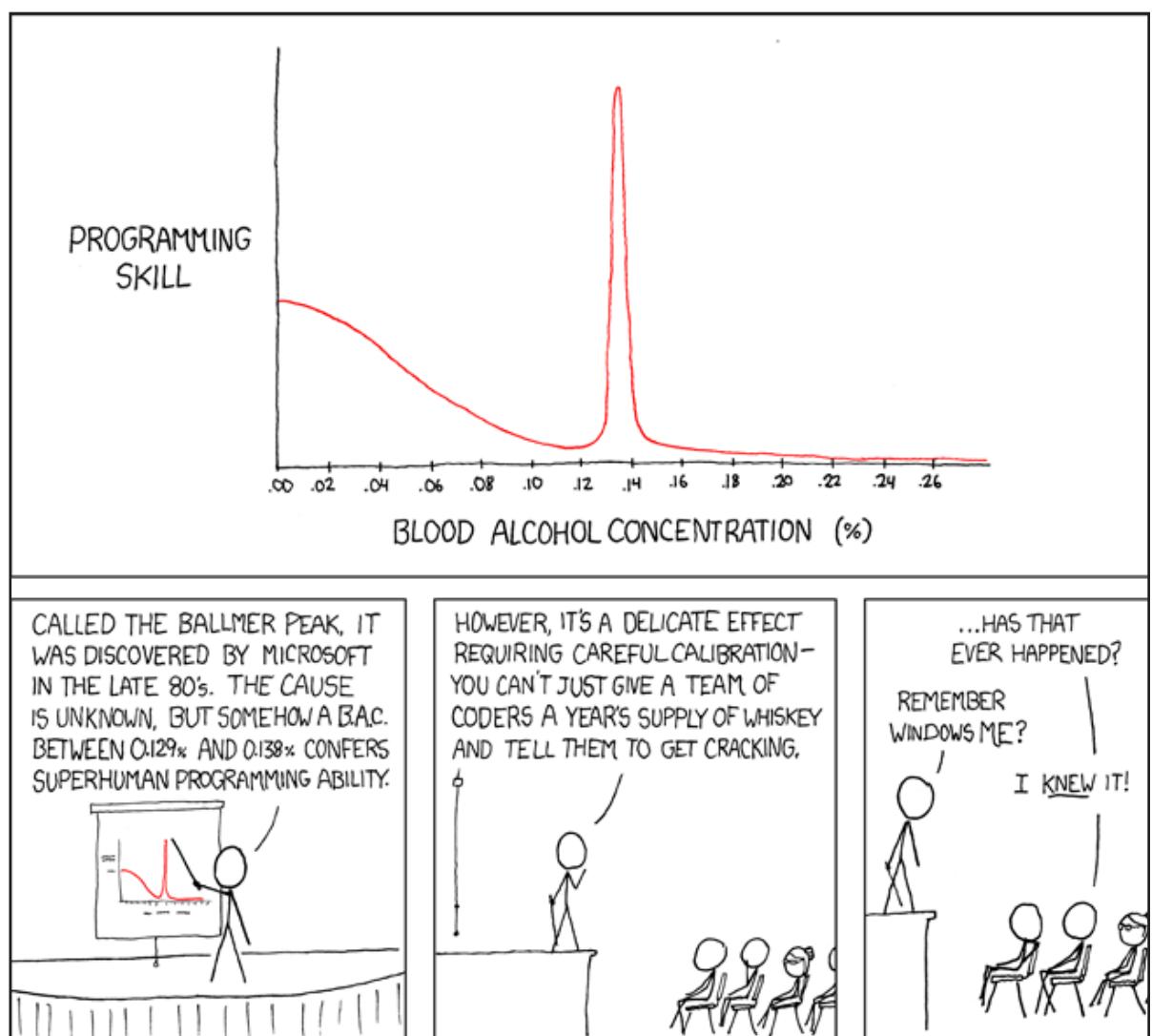


# Comics

Untitled-1.doc by Zorro



XKCD by Randall Munroe



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