



# The California Tech

VOLUME CV, NUMBER 25

PASADENA, CALIFORNIA

MAY 3, 2004



V. Tran/The California Tech

Robin, a member of the San Diego Real World Cast, gives her presentation Monday after the cast spent the weekend learning public speaking skills.

## Real World Cast Practices Public Speaking Skills with Presentation

By TAMMY MA

Caltech played host to an uncharacteristic group last Monday when the cast of MTV's Real World San Diego visited Caltech to give a talk. Real World, one of MTV's long-running hit reality shows "is the true story of seven strangers, picked to live in a house to find out what happens when people stop being polite and start getting real. The Real World!"

The weekend previous, the cast of seven college students were trained at Avery House on public speaking and presentations by an East Coast consulting firm in preparation for an upcoming Real World educational tour. In return to Caltech for providing the training venue and support, Real World held an all-student program in Avery dining hall on Monday. The cast talked about some of the real life challenges

they have faced and are facing and shared some of their experiences.

As the production opened to a fairly good Caltech crowd, Kevin Lee, a producer of Real World San Diego explained the motives behind their launching a national tour with the Real World cast. Since 1997 and Real World Boston, each cast has received training in public speaking since they realized that people from the cast were being invited to different colleges to share their life experiences. Each cast member showcased a different topic they considered important to college students and showed a brief video and conveyed their thoughts on the topic.

Cameran, aged 19 and labeled the "southern belle" kicked off the talk by speaking about sex and STDs. She certainly caught the audience's attention when

she started by asking "Who here is a virgin? If you are, raise your hand." She went on to commend waiting on sex and noted that in America, it's "cool again to wait." She also shared with the crowd how she personally lost her virginity and expressed her regret that in hadn't been a very special experience.

Cameran stressed the importance of safe sex, by commenting, "Women should not be embarrassed to carry a condom in their purse, or men to carry one in their wallet. There's no excuse. Wear condoms. It's the cool thing to do."

Continued on Page 8, Column 1

## Elachi Elaborates On Recent Space Success

By ROBERT LI

Last Wednesday, JPL Director and Caltech professor Charles Elachi gave a Watson lecture titled "Challenges and Excitement of Space Exploration". In the hour and a half talk, Dr. Elachi discussed recent JPL missions including the Mars missions as well as laying out a plan for space exploration in the next decade.

After beginning the talk with a video of the launch of the two Mars rovers, Dr. Elachi showed an inspiration quote from Teddy Roosevelt who said, "Far better it is to dare mighty things, to win glorious triumphs, even though checkered by failure, than to take rank with those poor spirits who neither enjoy much nor suffer much, because they live in the gray twilight that knows neither victory nor defeat."

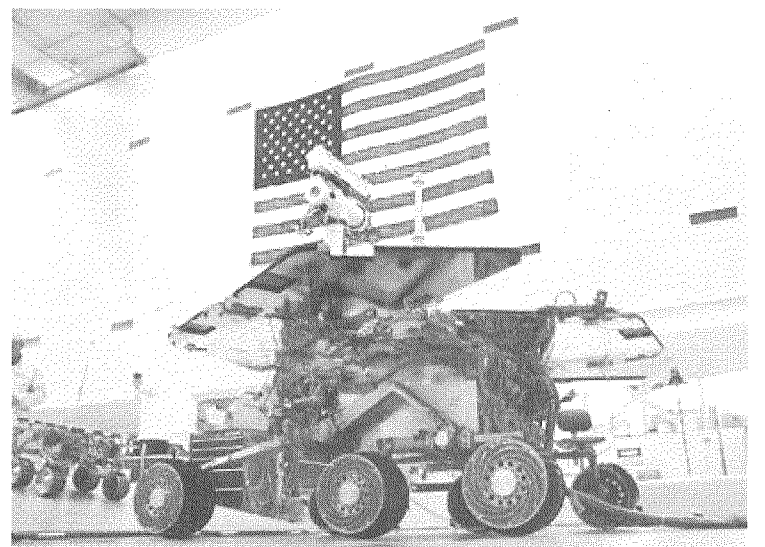
Dr. Elachi then got into the gist of his talk which dealt with the Mars missions. Introducing the topic by asking how common life is in the universe, Dr. Elachi described the many similarities between Earth and Mars.

The planets have approximately the same day length, the same land surface area and similar geography. Moreover, Mars has landscape features that strongly suggest that there had been at one point liquid water flowing on the planet.

This January, two rovers, Spirit and Opportunity, successfully landed on Mars to investigate the geography and to look for concrete signs of liquid water. The first rover to land, Spirit, came down in a deep, wide crater called Gusev crater while the second rover, Opportunity, landed three weeks later in an area known as Meridiani Planum. As we all know, Gusev crater did not turn out to be as interesting as many scientists had thought while at Meridiani, Opportunity found certain sulfate salts that indicated that Mars at one point was drenched with water.

According to Dr. Elachi, the Mars missions were a huge success. In the two days after each rover landed, "Mars" was the most searched word on

Continued on Page 8, Column 4



Courtesy of marsrovers.jpl.nasa.gov

The Mars rovers Spirit and Opportunity have outlived their planned lifetime and both are in the middle of long treks.

## Politicians, Celebrities Parodied By Steps Regardless of Affiliation

By KEVIN BARTZ

President George W. Bush is struggling to find Iraq on a map. "Don't give me any hints this time, Dick," he insists.

"Something that's been bugging me is the fact that everyone's been talking about the one country that we did bomb, but no one's talking about the bunches of other countries that we could've bombed but did not. Like... uh, Korea." Perplexed, he stammers. "Which is the bad one again, Dick?"

And the audience bursts out in an all-too-common fit of laughter.

This "George W. Bush" is Andy Clemence's side-splitting caricature for the Capitol Steps, 23-year Washington parody artists and longtime Hill favorites, performing last Friday and Satur-

day to sold-out Beckman Auditorium crowds of students and local residents.

"I try to just capture what's unique about a politician," said cast member Janet Gordon, who played everyone from Condoleezza Rice to Hillary Clinton, including a number as porn star Mary Carey. "You really look for those interesting mannerisms and personalities."

The group parodies anything and anyone in the public eye--with a focus, of course, on government, pop culture and political psychosis. Their numbers run the gamut from song and dance and mock press conferences to Mike Loomis's signature "backwards speak" routine, "Lirty Dies."

Anyone's fair game, left or right. For his part, Clemence plays not only a chortling and bumbling Bush but also a tee-

tering and stilted John Kerry, complete with high-heel boots and "big hair" almost falling off his head. A twist on Joni Mitchell, Kerry's refrain is true to his image as a waffler: "I've taken stands on both sides now."

Uniquely, all of the Steps hail from Washington and most, including three of the five who performed in Beckman last weekend, have work experience in Congress. As a result, they hone in on defining details--speech patterns, physical builds, hairdos, ideologies. "We can read and watch the news and look for what's funny about a person," said Gordon.

Bill Clinton, she said, has been the most parodied personality over the years. The Steps' Clinton, who wears Elvis-like sunglasses, sang Friday in a duet of "My Way" with Hillary. "I stood

Continued on Page 2, Column 4



The California Tech Archives

One of the Capitol Steps performers does his Saddam impression during the show that targets all types of public figures.



Courtesy of [www.capsteps.com](http://www.capsteps.com)

The Capitol Steps formed in 1981 and have been performing their songs and sketches around the country ever since.

## Former M.A.S.H. Star to Speak In Opposition to Death Penalty

By D. WILLIAMS-HEDGES

PASADENA, Calif.—Human rights advocate and actor Mike Farrell will come to Caltech to present the final address in the 2003-2004 season of the Social Activism Speaker Series at the California Institute of Technology.

Well known for playing B. J. Hunnicutt in the popular television show *M.A.S.H.*, Farrell has spent much of his life campaigning for prisoners' rights and penal reform. Currently president of Death Penalty Focus (DPF), a nonprofit organization, he will speak on his efforts to help end capital punishment. This event will take place on Thursday, May 6, at 8 p.m., in Ramo Auditorium on the Caltech campus. It is free and open to the public.

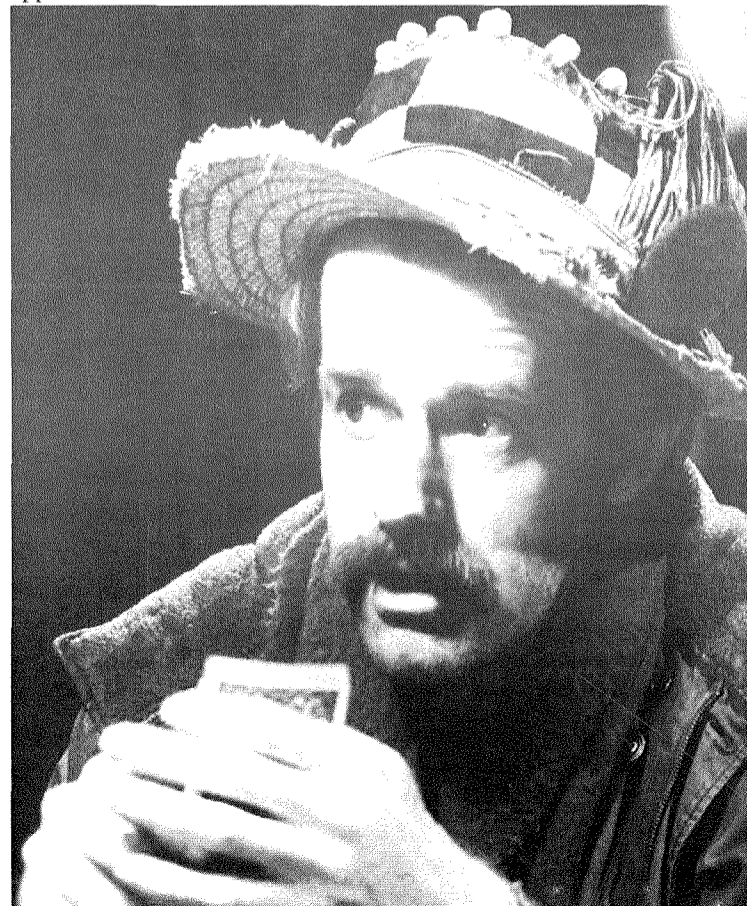
Mike Farrell's interest in human rights developed long before his success as an actor. His volunteer work at a Salvation Army rehabilitation center in the late 1960s gave him an appreciation for the plight of people often written off as outcasts and derelicts. He soon became involved in a number of organizations devoted to improving the penal system and the rights of prisoners. A visit to death row at Tennessee State Prison left an indelible imprint and encouraged him to learn more about the death penalty.

Farrell later became active in Death Penalty Focus which is dedicated to the abolition of capital punishment through grassroots organizing, research and educa-

tion. As president of DPF since 1994, he has been instrumental in commuting the death sentences of many mentally ill and wrongly accused inmates across the country.

In addition to a busy speaking schedule, he has made numerous appearances on radio and televi-

sion shows, including Larry King Live and Politically Incorrect. He has also been honored with many awards for his work, including, most recently, the Southern California ACLU Garden Party Award and the 2002 Gleitsman Foundation Citizen Activist Award.



Mike Farrell, shown here in his *M.A.S.H.* role as B.J. Hunnicutt, is the President of Death Penalty Focus, a human rights group.

## Steps Have Easy Time Poking at Republicans

Continued from Page 1, Column 5

tall, I did 'em all, don't care what they weigh," he sang. In fact, there's a whole Steps album, "Unzippin' My Doodah," devoted to Clinton's escapades.

Clinton may win in numbers, but their favorite personality? That honor falls to none other than Admiral James Stockdale, Ross Perot's running mate in his '92 campaign. Their rendition of his infamous "Who am I? Why am I here?," next to a Perot with ears down to the floor in "Rosty the Chairman," was a crowd favorite, they said.

Balance is foremost; the Steps insist they're a nonpartisan act. "I'm a militant moderate," said Elaina Newport, who's performed with the group since its 1981 inception. "I think that both fringes get very funny and it's great for our show." Their team goes so far as to count the number of Republican and Democratic parodies, so that for every scene with Bush mistaking Iraq for Iran or Arnold Schwarzenegger groping reporters at a press conference, there's another with John Edwards singing "I'm So Pretty" or Howard Dean yelping in "I Just Have to Shout."

Comedians in the broadest sense, the Steps are writers, performers and prop managers all rolled into one. "We thought of hiring writers," said Newport, "but it's so much more fun just to do the writing ourselves." With 23 rotating members, their sources for inspiration are many. They're even able to overcome the writer's block that comes from finding interesting Democrats in a Republican administration.

"It's easy to parody the administration--Bush, Cheney, Rumsfeld, Rice," said Newport, "but you go and try to write a joke about Dick Gephardt. I'm glad this is an election year, because we've gone a while without an interesting Democrat." She was actually hoping for Bob Dole to win in '96, she added, "because we'd just about run out of Bill Clinton jokes."

As such, they turn to local elections, pop culture, even talk-show hosts like Rush Limbaugh for new jokes. Playing on the host's admitted addiction to prescription painkillers, Limbaugh recounts how he was "high...ly rated" and sings "I Wish I Was On Oxycontin," closing with "You knew I was addic...ted."

They didn't always have to dig so deep, however. "Back in the '90s, with Bob Dole, Ross Perot, Bill Clinton, Newt Gingrich, comedians were almost redundant because Congress was already so funny," remembered Newport. Between Whitewater and Monica Lewinsky, they had so much material that Clinton didn't invite them back to the White House after the impeachment proceedings. Gingrich likewise said he "likes it better when they make fun of Clinton."

Luckily for the Steps, the Iraq war was rife with comic moments, although the group took pains to avoid treating a war too lightly. "There are some issues that are very tough," said Newport, "but you can always go after the politicians behind the scenes."

Their solution: take on the French--"we weren't beneath that," said Newport--and the Hollywood actors whose vocal opposition had seized the political spotlight. Poking fun of

the actress's recent visit to Iraq, Friday's show featured a duet with "Sunni and Cher," as well as a skit with "General Malaise" of the French army and a "cell phone" conversation between Bush and Saddam Hussein in a prison cell.

The power of the Internet--which backwards-speaker Loomis playfully calls the "Interweb"--is also key to the group's success. "We just went to the Internet and typed in 'men's platform shoes,' and there they were," recalled Gordon. She knew the Steps' Kerry had to look tall and stiff. Internet wig sites also allowed the group to keep up with Hillary Clinton's changing hairstyles. "For a few weeks during her Senate run, she kept changing her hairdo on us," laughed Gordon.

The Capitol Steps first teamed up in 1981 for a friend at a Senate Foreign Relations Committee Christmas party, explained Newport. For seven years, Newport was a staffer for then-Republican Sen. Charles Percy, who'd given her group the invite.

"At the time, we sort of tried to keep it under the radar. But from there, we were invited to another event, then another, then another," recalled Newport. "And it just took off." They rose to national prominence in 1988, when they caught the eye of George H.W. Bush, who invited the group to several White House dinners and whom Newport considers the "friendliest president of all."

Coincidentally, Caltech was the site of the group's first California performance and since then, their annual Caltech show has pulled in residents from all over Los Angeles, drawing rave reviews from everyone from Pasadena Mayor Bill Bogaard to ASCIT President Galen Loram '05, who invited his family all the way from Illinois to see the show, calling the Steps "very funny and very witty."

Perhaps it says something that the only complaint the Steps have ever received from a politician came from then-New York Sen. Alfonse D'Amato, disappointed that he *wasn't* parodied.

"There's a huge role for parody in maintaining the freedom of democracy," explained Bogaard, "and the Capitol Steps are at the apex of that. The language is tremendously funny and must be to keep the audience captivated."

### The California Tech

Caltech 40-58, Pasadena, CA 91125  
editorial desk: (626) 395-6153  
advertising desk: (626) 395-6154  
editorial e-mail: [tech@tech.caltech.edu](mailto:tech@tech.caltech.edu)

VOLUME CV, NUMBER 25

Tammy Yee Wing Ma Vi Tuong Tran  
Managing Editor Business Manager

Matthew H Walker Circulation  
News Director Natalia Deligne

Tearsheets  
Tim Tirrell

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

Letters and submissions are welcome; e-mail submissions to [tech@tech.caltech.edu](mailto:tech@tech.caltech.edu) as plain-text attachments, including the author's name, by Friday of the week before publication. Sorry the *Tech* does not accept anonymous contributions. The editors reserve the right to edit and abridge all submissions for any reason. All written work remains property of its author.

The advertising deadline is five p.m. 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@tech.caltech.edu](mailto:business@tech.caltech.edu). For subscription information, please send mail to "Subscriptions."

## ASCIT Minutes: New Sign-Ups Posted, IHC Makes Committee Appointments

ASCIT Minutes  
April 27, 2004  
12:05 PM

Present: Ann Bendfeldt, Ryan Farmer, Jenny Fisher, Shaun Lee, Kelly Lin, Galen Loram, Kim Popendorf, Corinna Zygourakis

Absent: Claire Walton

Guests: Jeremy Pitts, Nora De-Dontney

### Introduction:

1. Call to Order

### New/Open Positions:

2. Kim Popendorf notes that the survey about the proposal to allow freshmen in Avery is posted on the donut website. Its results are very important, so please take it!

3. More sign-ups!! If you're interested, sign-up for the following committees: Academic Policies, Committee on Exchange Programs and Study Abroad, Core Curriculum Steering, Curriculum, Educational Outreach, Library, and the Council for Undergraduate Education. Sign-ups are posted outside SAC 33 and come down on the evening of Sunday, May 2. Interviews will be held on Monday, May 3, starting at 8 PM. To find out more information about any of these, visit

<http://www.its.caltech.edu/~offoffac/committees/index.html> or email [arc@donut.caltech.edu](mailto:arc@donut.caltech.edu).

4. Sign-ups for the following IHC-appointed committees have also been re-posted: Grievances, Parking, Computer Advisory, and Upperclass Admissions. Sign-ups come down Wednesday, May 5 at 5 PM. Interviews are the same evening, starting at 10 PM.

5. Get involved in Caltech publications and additional institute committees! You can sign up to interview for: *California Tech* Business Manager, *Big T* editor,

*Big T* business manager, *little t* editor, *little t* business manager, and *Totem* editor, as well as the following committees: Institute Art, Institute Programs, Institute Size, and REGIS. Sign-ups for these committees are now posted outside of SAC 33 and will come down the afternoon of Monday, May 10. Interviews will be held on Tuesday, May 11 starting at 10 PM.

6. Congratulations to the newly-appointed members of the following committees. Thanks to everyone who interviewed!

Athletics & Physical Education: Kamalah Chang, Jason Quimby, Tim Boyd (alt).

Freshmen Admissions: Tim Boyd, Meng-meng Fu, Ben Golub, Warner Leedy, Peter Foley, Katie Richardson, Vicki Loewer (alt), Wendy Xu (alt), Jeewan Choi (reader), Wei Dang (r), Kayte Fischer (r), Lisa Fukui (r), Shelby Montague (r), Royal Reinecke (r), Mayra Sheikh (r), Sarah Wilhoit (r).

Foreign Students: Jonathan So, Jun Lu (alt)

Health: Angelina Crans, Shu-Hao Zhang, Francesca Colonnese (alt), Meng-meng Fu (alt).

Scholarships & Financial Aid: Galen Loram, Adam Sears, Helena Wang (alt), Wendy Xu (alt).

Student Housing: Angelina Crans, Lizz Felnagle, Lionel Jingles (alt).

UASH: Manny Garcia, Vicki Loewer, Shelby Montague, Wendy Xu, Julia Ma (alt), Veronica Sovero (alt).

CRC: Nick Wall, Meng-meng Fu, Hesper Rego, Jason Quimby, Lionel Jingles, Libin Zhang, Vera Pavel.

MHF: Jason Quimby, Peter Foley, Daniel Stolarski (alt).

Money Requests:

7. Jeremy Pitts, Aimee Eddins,

and Veasna Sok ask to take Professor Grote out to lunch at the Ath. Vote: 6-0-0 (approved).

### Other Business:

8. BoD ratifies IHC committee appointments. Vote: 7-0-0 (approved).

Meeting adjourned 1:00 PM.

Respectfully submitted,  
Corinna Zygourakis

## To Dean Revel:

*The students of Caltech would like to offer our condolences in your time of grief. Our hearts and sympathies go out to you. We love you, Dean Revel!*

## Caltech Quiz Bowl Team Places 16th and 18th in National Championship

By PARAG BHAYANI

On April 2nd and 3rd, the Caltech Quiz Bowl team participated in the Intercollegiate Championship Tournament at Washington University in St. Louis. The national tournament, sanctioned by National Academic Quiz Tournaments (NAQT), saw two divisions of thirty-two teams each compete in a day and a half of academic buzzer competition.

In Division I (D-I), which has teams consisting of graduate students and veteran undergraduates, the Caltech team of seniors Jordan Boyd-Graber and Harris Nover and sophomores Irene Ying and Parag Bhayani finished in 16th place overall, an improvement from 24th place taken by last year's D-I team. Additionally, Caltech finished 4th among the fourteen undergraduate teams playing in D-I, and Boyd-Graber finished in the top 30 individually out of over 120 players. UC-Berkeley finished as the overall champion, and University of Illinois was the undergraduate champion.

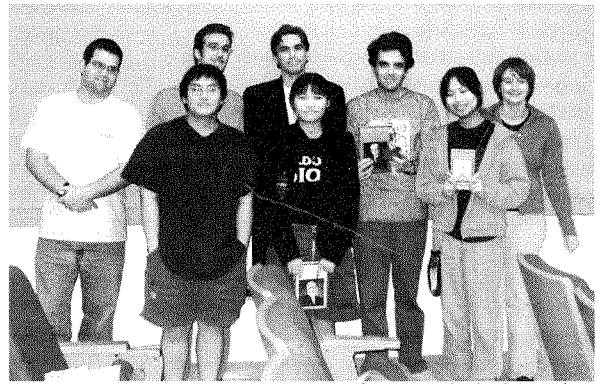
Meanwhile, in Division II (D-

II), which has teams consisting of undergraduates in their first year of quiz bowl and community colleges, the Caltech team of junior Xiao Peng, sophomores Grace Chuang and Eric Kwei, and freshman Eddie-

Truong Cao finished 18th overall after difficult opening-round matches on Friday; Peng was one of the top fifteen scorers. The D-II tournament was won by UCLA, with Valencia (Fla.) Community College taking the community college championship.

"All in all, the trip was a success," commented Ying. "We could have done better in some of the rounds, but it ended up pretty good."

Expressing her satisfaction with the trip, Peng exclaimed, "Quiz



The Quiz Bowl team pauses in between answering trivia questions to pose for a group picture.

"Bowl rocks my world!"

The Quiz Bowl team also sent two teams to the Ghetto Warz tournament at USC on April 17, taking 5th and 6th places. The team will also be playing in the Berkeley Spring Tournament on May 22. Practices are held on Sunday and Thursday nights from 7:30 to around midnight, and all are welcome. Finally, the team would like to thank ASCIT and the Caltech Y for providing funding for this trip.

Certified mover

Certified shaker

Certified no more mac & cheese

Certified acceleration

Certified rush

Certified freedom

Certified bring it on

Certified Pre-Owned BMW

BMW  
Certified  
Pre-Owned

bmwusa.com  
1-800-334-4BMW



The Ultimate  
Driving Machine



Certified only at an authorized BMW center.

Get warranty protection\* up to 6 years or 100,000 miles. Get flexible leasing and financing options. Get pure BMW.

Certified Pre-Owned

search up-to-date, extensive inventory at [bmwusa.com](http://bmwusa.com)

\*Protection Plan provides coverage for up to 2 years or 50,000 miles (whichever comes first) from the date of the expiration of the 4 year/50,000 mile BMW New Vehicle Limited Warranty. See participating BMW passenger car center for details. For more information, call 1-800-334-4BMW, or visit [bmwusa.com](http://bmwusa.com) ©2004 BMW of North America, LLC. The BMW name and logo are registered trademarks.

# Bush or Kerry--Who Wears the Flip-Flops?

By PARAG BHAYANI

Over the weeks since John Kerry effectively won the Democratic nomination for President, George W. Bush's campaign launched a multi-million dollar advertising blitz to define John Kerry for the American voters before Kerry was able to lay out his own message.

One of the tactics employed by the President was to cast Kerry as a serial flip-flopper because of the Democrat's position changes on various issues during his years in the Senate. Bush has even incorporated the theme into his campaign speeches, making the oft-repeated statement, "The [Democratic] candidates are an interesting group, with diverse opinions: For tax cuts... and against them, for NAFTA... and against NAFTA, for the PATRIOT Act... and against the PATRIOT Act, in favor of liberating Iraq... and opposed to it. And that's just one senator from Massachusetts."

The Republican campaign has gone so far as to create a "Kerry vs. Kerry" animation, which puts some of Kerry's conflicting views on policy side by side. But while Bush's zinger is technically true, many of Kerry's reversals are due to his dissatisfaction with the administration's execution of policies: for example, Attorney General John Ashcroft's questionable use of the broad powers granted him by the PATRIOT Act, and the lack of any substantive post-war planning for Iraq.

According to recent polling, this attack has been somewhat effective. Undecided voters associate Kerry with the term "flip-flopper" more than any other word,

and Kerry's unfavorable ratings have risen considerably since his wins on March 2nd that effectively sealed his nomination.

However, while Kerry has changed his position on several issues due to political expediency, the President is undoubtedly at least as big a flip-flopper as the Democrat, and perhaps even more so. This is significant because a dominant theme in the Bush campaign is to portray the President as a steady leader, a stark contrast to his opponent. In fact, the campaign slogan is "Steady leadership in times of change."

Former top White House advisor Karen Hughes has suggested that she does not know of any instances when her former boss shifted positions to temper public demand. But here is a list of examples of the contrary (largely in part from the Center for American Progress). This list is not meant to be all-inclusive; in fact, only a few big flip-flops are mentioned. For a more detailed list, visit the "Media" section of [www.americanprogress.org](http://www.americanprogress.org), look for the 3/31/04 press release.

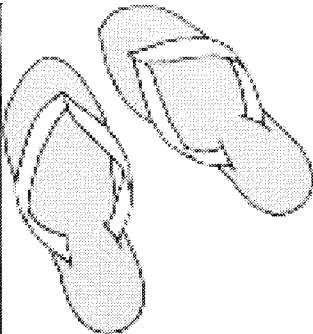
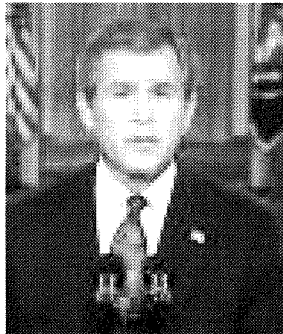
**Flip:** Bush opposes the creation of a commission to investigate September 11

For one year after the attacks, the administration publicly opposed a panel charged with identifying the problems leading up to the fateful day.

**Flip:** Bush will allow a 9/11

commission

Relenting to public pressure upon the first anniversary of the attacks, the commission is empaneled to investigate all causes and propose solutions. Its initial chairman is Henry Kissinger, who has been party to many government-sanctioned human rights violations and is known for conducting business in secrecy. The Bush administration has also withheld many documents and much funding, preventing a lot of



Both Bush and Kerry have changed their stances on issues in several cases, but who really wears the flip-flops?

courtesy of [www.sun-inet.org](http://www.sun-inet.org), [www.usatoday.com](http://www.usatoday.com)

progress. In addition, only after Congressional pressure was the commission given a time extension to finish its work in the face of Bush stonewalling. Now, many on the right are trying to discredit the work done by the panel due to the partisanship arising with the testimony of figures like Richard Clarke and Condoleezza Rice.

**Flip:** Bush will not testify in front of September 11 commission

Citing executive privilege, the George Bush and Dick Cheney repeatedly declined requests by the members of the 9/11 commission to testify about the situation leading up to the disaster.

commissioners are allowed to take notes). This meeting took place on Thursday, April 29, but very little is known. It has not yet been determined whether or not Bush sat on Cheney's knee with Cheney's hand up his back.

**Flip:** Bush wants Osama bin Laden

Six days after September 11, Bush declares, "I want justice. And there's an old poster out West, I recall, that says, 'Wanted: Dead or Alive.'"

**Flip:** Bush does not care about bin Laden

"I don't know where he is. I have no idea and I really don't care. It's not that important." (At a press conference in March of 2002.)

**Flip:** Bush supports free trade

Being a Republican in support of deregulation, Bush is a proponent of unrestrained free trade for all American companies. (Clinton and Gore are also free-traders.)

**Flip:** Bush supports tariffs on steel

In a campaign promise to the voters of steel-manufacturing hotbeds Ohio, West Virginia, and Pennsylvania, Bush pledges to create barriers on steel imports to help the struggling industry. Bush goes on to narrowly win traditionally-Democratic West Virginia and swing state Ohio en route to winning the presidency (sort of). Tariffs are enacted in March of 2002.

**Flip:** Bush rescinds tariffs

Faced with sanctions from the European Union on products from politically sensitive states such as Florida, Missouri, and Wisconsin, the steel tariffs are lifted in December of 2003.

**Flip:** Bush believes gay marriage question should be left to states

On Larry King Live in February, 2000, candidate Bush says, "The state can do what they want to do. Don't try to trap me in this state's issue like you're trying to get me into."

**Flip:** After Massachusetts Supreme Judicial Court decision, Bush supports amendment to the Constitution banning gay marriage

In February, 2004, Bush panders to his socially-conservative base in declaring that marriage should be limited to one man and one woman. This would be

first Constitutional amendment to limit the rights of certain people. This angers the Log Cabin Republicans, the nation's largest group of gay GOP members, which endorsed Governor Bush in 2000. Also alienated are conservative Republicans who oppose government interference in such matters as much as possible.

**Flip:** In pushing for a war on Iraq, Bush plays up WMD threat and equates al-Qaeda and Saddam Hussein

In this 2003 State of the Union address, Bush declares that Saddam has, "25,000 liters of anthrax...38,000 liters of botulinum toxin...[and] 500 tons of sarin, mustard gas, and VX nerve agent." "You can't distinguish between al-Qaeda and Saddam when you talk about the war on terror," states Bush in September, 2002.

**Flip:** Faced with reality after the invasion of Iraq, Bush changes his tune

"David Kay goes in and says we haven't found stockpiles yet, and there's theories as to where the weapons went,"-Bush on Meet the Press, February, 2004. However, Saddam apparently had weapons of mass destruction program-related activities. "We've had no evidence that Saddam Hussein was involved in Sept. 11," says Bush in September of 2003.

...and that's just one President from Texas.

Business Plans  
Financial Models  
MBA, 20 years experience  
Email [jkennedy@ant91.com](mailto:jkennedy@ant91.com)  
Or call 310 641 3511 x14

Postbaccalaureate Premedical Program

You want to go to medical school, you have your B.A., but the only science course you've taken has been Physics for Poets.

We have a program for you.

Columbia University's Postbaccalaureate Premedical Program is America's oldest and best.

Discover why our graduates have an 85% placement rate in American medical schools. Call:

(800) 890-4127

[gspremed@columbia.edu](mailto:gspremed@columbia.edu)  
[www.columbia.edu/cu/gsp/postbacc](http://www.columbia.edu/cu/gsp/postbacc)

**COLUMBIA**  
School of General Studies

**CRYING BLOOD**  
An Uplifting Comic for the Average Teacher  
BY HAMILTON FALK AND JACK LEE  
edited by Cat Chou

hmm...

MIT or Caltech or happiness?!?! I can't decide!

Go Go Magic 8 Ball!!

Hmm...foggy weather sucks...I like sunny weather...Caltech it is!

The Prefroschies Decide

Magic 8 Ball Time!!

Future Foggy. Check back later

One by one they come...

**Tony's Cartoon**  
Note Title 4/30/2004

Jack is too lazy to draw two cartoons this week, so Tony is drawing the second

Burger

the moon

Tony Wins!

Front Line

# Letters to the Editor: Readers Share Their Own Definitions of Diversity



Dear Editor,

I am writing in response to both the article by K. Szwaykowski entitled "Students Argue Segregation Issue Before Lunch Crowd" (April 19th, 2004) and the letter to the editor in last week's *Tech* (April 26th, 2004) by Dr. Morgan Kousser. Both of these addressed diversity and self-segregation within the undergraduate student Houses. I would like to clear up an apparent misconception regarding Ricketts House.

According to the 2002 undergraduate statistics (these are the most recent statistics I could find on the Caltech website), the undergraduate population breakdown is as follows:

African-American: 1.28%  
Native American: 0.53%  
Asian/Pacific Islander: 27.16%  
Hispanic/Latino: 6.50%  
Caucasian: 56.02%  
Non-resident alien: 7.67%  
Undisclosed: 0.85%

I could not find definitions for these various categories. I have assumed that Indians/Pakistani are "Asian/Pacific Islander" while those of Middle-Eastern descent are "Caucasian." In addition, it is not clear how those who are bi-racial (for instance, one Caucasian and one African-American parent) are categorized; I suspect the "one-drop" rule is used in which those who are half African-American are considered to be African-American for these purposes; this is the rule I have applied when determining my statistics. In any case, it is clear from these numbers that Caltech is not the most diverse campus around; however, that is not the issue at hand. The issue at hand appears to be how to make the living environments of Caltech undergraduates more "diverse" than they currently are.

If each House was as diverse as it could possibly be as determined by statistics of this nature, one would expect that the breakdown of various ethnic groups within the Houses to reflect that of the undergraduate body. As has been stated in previous *Tech* articles, this is not the case. In the case of Ricketts House, the breakdown of its members is as follows:

African-American: 5.31%  
Native American: 1.77%  
Asian/Pacific Islander: 16.81%  
Hispanic/Latino: 15.04%  
Caucasian: 50.44%  
Non-resident alien: 10.62%

From these values, it is hard to see where the "fact" that Ricketts is "predominately white" (\*\*) or

even "75 % white" (Dr. Morgan Kousser) came from. While it is true that Ricketts has a much lower percentage of Asian students than that of the undergraduate student population, Ricketts does have a significantly higher proportion of non-Asian minorities. In fact, for each category besides Asian/Pacific Islander and Caucasian, the percentage of students that are Ricketts House members is higher than the undergraduate average.

It would appear that the previous authors have confused percentage of Asians students with the measure of diversity. There are other ways to "measure" diversity besides looking at the proportion of Asians to non-Asians. Other things to take into consideration include (but is not limited to!) other races/ethnicities, gender, national origin, sexual orientation, religious beliefs, and interests. I hope that as the discussion of diversity and self-segregation continues, factors besides whether or not a student is Asian will be considered when describing diversity.

Respectfully,

Natalia Deligne  
Ricketts '04

Dear Editor,

It is difficult to form an opinion about the state of segregation in the undergraduate houses based on the vague racial classifications cited in the coverage of this issue in the last two issues of *the Tech*.

Undergraduates are described only as "White" or "Asian", classifications that tell the reader very little about the actual composition of the houses. One can easily imagine self segregation among the students resulting from a variety of causes that are correlated with race but are not actually racial in nature.

Self segregation might be the expected outcome for students who share a primary language other than English, share certain religious beliefs, or share family ties. In response to recent ethnic or national conflict, certain groups of students may be uncomfortable living together, which would also tend to generate segregation. Numerous other hypotheses, including the null hypothesis, are possible, but the reader cannot assay the validity of any of these ideas without better data.

Regards,

David Mathog  
mathog@caltech.edu

## CUE Discusses Changing Core 1, Ch3a Sections to be Split Morning, Afternoon

By JENNY FISHER

The Council on Undergraduate Education convened for the first meeting of the term on April 16th.

The main issue on the agenda was Core 1. There is general agreement among CUE members, students, and faculty that in its current form, Core 1 is not a useful course. The CUE discussed a variety of possible ways to change Core 1, including proposals from the Division of Humanities and Social Sciences, the Core Curriculum Steering Committee, and the Hixon Writing Center. Dr. Scott Fraser, chair of the Core Curriculum Steering Committee, will write a proposal for a revised version of Core 1 that will be presented at the May 10th Faculty

Board Meeting.

Dr. David Goodstein, Chairman of the Cue, reported that beginning next year, students will be able to register for morning and afternoon sections of Ch3a on different days, rather than having to take the two sections on the same day.

The Curriculum Committee, chaired by Dr. Alan Weinstein, is considering a proposal for a new philosophy option. The option has only 90 units, much fewer than many of the other options. The Academic Policies Committee will be asked to look into how to address the lack of uniformity in the requirements of different options.

Caltech Management Association, A Leadership Forum presents

**Seeing Mars from Both Sides: A Panel Discussion**

with Mars Exploration Rover (MER) team members, including Pete Theisinger, Richard Cook, and Joy Crisp

Date: Tuesday, May 4

Time: 12 p.m. to 1:30 p.m.

Place: Beckman Auditorium, Caltech

The incredible feat of landing, operating, and interpreting the science results from twin Spirit and Opportunity rovers on Mars has a human side. Join key members of MER as they tell their fascinating stories and show the most recent results from the always-surprising surface of Mars. Even though MER has been one of the most publicized robotic space missions to date, you won't want to miss this event held exclusively for the Caltech/JPL community.

Attendees will be provided with a box lunch as they leave Beckman auditorium.

Also on hand will be a full scale rover ("Marvin") on stage with the MER panel members. The Beckman auditorium foyer will have a 15 ft 3D panorama of the landing site as well as many other large format pictures that will take your breath away. CMA members get special seating and the chance to win one of two Lego MER rovers with the box signed by the panel members. You can sign up for CMA membership before the event outside Beckman for \$10.

This event is free. All Campus/JPL personnel and retirees are welcome.

For more information about this event, please send e-mail to [cma.announce@jpl.nasa.gov](mailto:cma.announce@jpl.nasa.gov) or call Steve Matousek, (818) 354-6689.

This Week is **Semana Latina**. Come out and enjoy the events planned for the week:

**MONDAY, May 3rd**

-Salsa by Johnny Polanco & Su Conjunto Amistad

Tamales & Mole

noon: Winnett Courtyard

-Latin Rock by The DeSotos

6pm: Red Door Cafe

**TUESDAY, May 4th**

-Flamenco Dancers by Arte Flamenco

Tex-Mex Extravaganza

noon: Winnett Courtyard

-Round table with

La Cucaracha Cartoonist, Lalo Alcaraz

5pm: Avery Conference Room

-Featured Speaker:

Lalo Alcaraz, Cartoonist

8pm: Beckman Institute Auditorium

**WEDNESDAY, May 5th**

-Sueo Norteo Banda

Mexican Cuisine

noon: Winnett Courtyard  
-Espritu 2004 Art Exhibit  
Featuring: Jim Barry, Mariano Cinat, Carlos Flores, Alba Gomez, Ana Genzon, Santiago V Lombeyda, Claudio Luchina, Vanesa Martinelli, Matias Zielonka, + a film by Ricardo Genzon on opening night

Opening Reception with Hannes Jazz Band

7pm: Center for Student Services

**THURSDAY, May 6th**

-Tango by The Esther Segovia Dance Troupe

Argentinian Asado

noon: Winnett Courtyard

-Espritu 2004 Art Exhibit

9am-6pm: Center for Student Services

-Movie "City Of God" by iFilm

Cidade de Deus, Brazil (2002)

7.30pm: Beckman Institute Auditorium

**FRIDAY, May 7th**

-Samba by The Luis Ferera Ensemble

Cuban Specialties

noon: Winnett Courtyard

-Espritu 2004 Art Exhibit

9am-5pm: Center for Student Services

**SATURDAY, May 8th**

-Salsa Party!

Live music by Esther Segovia + CoffeHouse Party w/ DJ Club

9pm, Ricketts/Fleming courtyard

**Caltech's 2nd annual "Travel Fair"** will take place on Wednesday June 16th from 11:00 to 2pm in front of the Chandler Dining Hall. Come to meet and greet the travel and peard departments and our many travel vendors. There will be music and a barbeque meal will be available to purchase at Chandler. Prizes will be donated by some of our top vendors, (winners must be students, staff or faculty of Caltech.) Come and enjoy the sunshine and the fun!

**Summer Work Study:** Information and applications for 2004 Summer Work Study are available in the Financial Aid Office. If you are interested in Summer Work Study, please submit the required application as soon as possible, but no later than June 1, 2004. Your entire financial aid application must be complete by June 1, 2004 in order to be considered for Summer Work Study. If awarded, the work study funding will begin July 1, 2004.

**Attention all undergraduate students on Financial Aid:** The last date to request any adjustments of loan to work study, or work study to loan, for your 2003-04 financial aid award, is Friday, May 7, 2004. Requests for 2003-04 changes made after May 7 will not be considered. Please contact the Financial Aid Office at ext. 6280 if you have any questions.



# Good Move!

Make the **Smart** Choice and Join CEFCU.

The opportunity is yours for the taking! Whether you're a student, faculty or staff member at Caltech, you're eligible to join Caltech Employees Federal Credit Union. And, that's simply the best game plan for your money.

We offer: Some of the **highest rates on savings in the nation**...among the **lowest rates on loans**...dependable **low-cost VISA**...convenient **branch on campus**...**fee-free ATM** on campus...**free online access** to your funds.

Oh yes. And, we're unbeatably safe. Your savings are federally insured to \$100,000.

So, don't be a pawn at a bank. We're better across the board! Come in, sign up, and share the success at CEFCU.

**NOT YET A MEMBER?** All it takes to join is a \$5 deposit in our high-yield, federally insured savings account, and a 25¢ membership fee. Just visit our on-campus branch.



**CAMPUS OFFICE:**

515 S. Wilson Ave. • MS 100-63

(626) 395-6300 • [www.cefcu.org](http://www.cefcu.org)

NCUA: Your savings federally insured to \$100,000 by the National Credit Union Administration, U.S. Government agency. CEFCU is an Equal Opportunity Lender.

# Caltech Sports Wrap Up Their Seasons with SCIACS

By MIKE RUPP

April 26, 2004

### Athlete of the Week

Jacki Wilbur - Women's Water Polo

The senior from Hopewell, New Jersey and defending Caltech Athlete of the Year ended her collegiate Women's Water Polo career having guided the program to a solid start in only its second year of existence this past week at the conference championships. All told, Wilbur had eight goals, seven steals, five assists and three errors drawn over the course of the regular season finale at Cal Lutheran and the three-match Championships. For the season in Water Polo, Wilbur was second on the team in goals (34), first in assists (11), second in steals (48) and first in goals off of errors drawn (10). Wilbur's athletic career at Caltech includes holding an astounding 10 Women's Swimming records, having become a mainstay of the aquatics program for all four years, and winning Caltech Athlete of the Year honors last year. Congratulations to Jacki on an outstanding career!

### Week in Review

#### Track & Field

**Head Coach: Julie Levesque**  
The Caltech Track and Field finished its regular season last week at the SCIAC Championships. The Caltech Women finished in 6th place behind performances from Sophomore Helen Tai, Junior Kristen Zortman and Senior Tamara Becher, who were all part of both the 4x100 and 4x400 relay teams in addition to their individual events. The Men's team was lead by Sophomore Jeremy Leibs, who had top-five finishes in two different events. For most of the team, the conference championships represent the season's end. Jeremy Leibs, meanwhile, continues his quest to qualify for the NCAA Championships in the Men's 110 Meter Hurdles. He'll be competing on his own at several prominent open invitationals throughout California in the hopes of making the cut. Good luck to Jeremy, and congratulations to the entire team!

**Men's Baseball**  
The Men's Baseball team suffered another difficult loss this past Friday against La Verne. On the upside, Junior Isaac Gremmer hit his first home run of the season, and the team finally scored

Men's Baseball	
Caltech.....	2
LA VERNE.....	26

#### Head Coach: John D'Auria

The Men's Baseball team suffered another difficult loss this past Friday against La Verne. On the upside, Junior Isaac Gremmer hit his first home run of the season, and the team finally scored

against a SCIAC team.

### Men's Golf

#### Head Coach: John Suarez

The Men's Golf team competed in two 18-hole SCIAC competitions this past week, scoring a total of 3 points towards overall conference standings. The team will wrap up its season with a 36-hole championship round on Wednesday. Tune in to next week's edition of the Caltech Weekly All-Sports Release for a wrap-up of the season.

### Women's Water Polo (5-20)

Women's Water Polo	
Caltech.....	7
CAL LUTHERAN.....	8
SCIAC Championships	
Caltech.....	5
CMS.....	15
Caltech.....	4
OCCIDENTAL.....	14
Caltech.....	5
CAL LUTHERAN.....	9

#### Head Coach: Calla Allison

The Women's Water Polo team wrapped up its season this past weekend at the SCIAC Championships. In addition to Senior Jacki Wilbur's Athlete-of-the-

Week performance, several other student-athletes had notable contributions. Sophomore Ashley Grant had seven goals over the space of four matches, giving her a team-high 56 for the season. Junior Goalkeeper Delia Rosca averaged 10 blocks a match for the week, finishing the season with 264. Sophomore Bekah Eason had eight steals, and led the team for the season in that category with 51. Congratulations to the whole



courtesy of donut.caltech.edu  
Senior Jackie Wilbur was last year's Athlete of the Year, and now holds another Athlete of the Week distinction for her outstanding performance this season in water polo.

team on an outstanding season.

This Week in Caltech Athletics  
Apr. 28: Men's Golf, SCIAC Championships, All Day  
Apr. 30: Men's Baseball at Cal Lutheran, 3:00 PM  
Bold indicates HOME game

CALIFORNIA INSTITUTE OF TECHNOLOGY PRESENTS

## WARPING SPACE AND TIME

### Simulating Black Holes on Supercomputers

Numerical simulations on supercomputers have probed naked singularities in spacetime and discovered toroidal black holes, and have forced Stephen Hawking to concede a bet to Caltech's Kip Thorne and John Preskill. A Cornell/Caltech collaboration will simulate collisions of black holes, testing general relativity's prediction that black holes exist, and providing tools to interpret LIGO's gravity wave observations.

**SAUL TEUKOLSKY**  
The Hans A. Bethe Professor of Physics, Cornell University  
*Introductory Speaker*

**KIP THORNE**  
The Feynman Professor of Theoretical Physics, Caltech

**Tuesday, May 11, 2004**  
8 p.m. • Beckman Auditorium  
Admission is free. For information, call: (888)2Caltech or (626)395-4652

Your sperm can **EARN**

Become a sperm donor and earn extra income

- Make even more money by referring your friends to be donors
- Convenient Pasadena location
- Help people create families

It's a smart way to make extra money that takes very little time. You need to be 21-35, healthy and able to make a 1yr. commitment

**Pacific Reproductive Services**  
626.440.7450

**BAMBOO TEA HOUSE**  
Tea as a way of life  
700 E. Colorado Blvd.  
Pasadena  
Across from Vromans Bookstore  
(626) 577-0707

Caltech's Favorite Silkscreener Since 1978.

**ELLEN'S**

SILKSCREENING, EMBROIDERY AND PROMOTIONAL PRODUCTS

At Ellen's you'll find T-Shirts, Sweats, Jackets, Tote Bags, Buttons, Mugs Over 250,000 promotional items.

Give Ellen a call. She loves doing business with teachers!  
**(626) 441-4415**  
1506 Mission St. - So. Pasadena, CA  
www.ellensilkscreening.com

**HONDA & ACURA**  
COMPLETE CAR CARE

**Accurate Autoworks**

Honda, Acura, Nissan, & Toyota Specialists  
Serving the Caltech community since 1994

(626) 58-HONDA 584-6632 FAX (626) 792-5555  
26 North Hill Avenue, Pasadena, California 91106

## Hot Nights. Cool Trips. Advisors with Piercings.

Why Grandpa doesn't book his Summer Trip with us.

Paris.....	\$467
London....	\$426
Madrid...	\$602
Fiji.....	\$765

Air, hotel & transfers:

**HAWAII**  
5 night accomm.  
From: **\$454**

**LOS CABOS**  
4 night accomm.  
From: **\$464**

Fare is round trip from LAX and prices are per person. Subject to change and availability. Tax not included. Restrictions and blackouts apply. Fares are valid for students, faculty and youth under 26.

One stop. No hassles.  
We've got everything you need for your next trip.

**STA TRAVEL**  
www.statravel.com

54 South Raymond Ave  
**(626) 793.5595**

**STUDENT TRAVEL & BEYOND**

ONLINE >> ON THE PHONE >> ON CAMPUS >> ON THE /TREET

**Congratulations to all 2004 Degree Candidates!!**

The Bursar's Office will be scheduling your In-Person Exit Interview soon. This process is designed to inform you of the status of your student account and furnish you with loan related information. This interview will be conducted in our office, which is located in the Center for Student Services Building, room 120.

To find out more about this procedure please visit our website:  
[www.bursar.caltech.edu/checkout\\_grad.htm](http://www.bursar.caltech.edu/checkout_grad.htm)

Our staff is here to make this procedure easy and friendly.

# DARPA Race, Nanoscience Institute Among Big Stories

By MARK WHEELER

PASADENA, Calif. -- From radar on a chip to new "planetoids," a quarterly review of research at the California Institute of Technology.

## Distant Object Discovered

A planetoid more than eight billion miles from Earth has been discovered by Caltech researchers. "Sedna," the proposed name for the distant object, is more than three times the distance of Pluto, making it by far the most distant body known to orbit the sun.

## Researchers Find Farthest Galaxy

One of the farthest known objects to date in the universe may have been discovered by a team of astrophysicists using the Keck and Hubble telescopes. The object, a gal-

axy behind the Abell 2218 cluster, may be so far from Earth that its light would have left when the universe was just 750 million years old.

According to Caltech astronomer Jean-Paul Kneib, the galaxy is most likely the first detected close to a redshift of 7.0, meaning that it is rushing away from Earth at an extremely high speed due to the expansion of the universe. The distance is so great that the galaxy's ultraviolet light has been stretched to the point of being observed at infrared wavelengths.

## Scientists Find Kuiper Belt Planetoid

Planetary scientists at Caltech and Yale University have discovered a new planetoid in the outer fringes of the solar system. The planetoid, currently known only as 2004

DW, could be even larger than Quaoar--the current record holder in the area known as the Kuiper Belt--and is some 4.4 billion miles from Earth.

According to the discoverers, Caltech associate professor of planetary astronomy Mike Brown and his colleagues Chad Trujillo (now at the Gemini North observatory in Hawaii), and David Rabinowitz of Yale University, the planetoid was found as part of the same search program that discovered Quaoar in late 2002.

## Nanoscience Institute to Be Created

A \$7.5 million grant has been awarded by Fred Kavli and the Kavli Foundation to create a new institute at the California Institute of Technology for research in the emerging field of nanoscience. Caltech's Kavli Nanoscience Institute (KNI) will foster innovative research at the frontiers of nanoscale science and engineering.

## Giant Telescope Announced

Caltech and Cornell University are planning a new 25-meter telescope to be built in Chile. The submillimeter telescope will cost an estimated \$60 million and will be nearly two times larger in diameter than the largest submillimeter telescope currently in existence.

## Bumpy Road of the First Robotic Race

In the DARPA Grand Challenge autonomous desert road race that took place in March, Caltech's entry, a 4X4 Chevy Tahoe truck with the nickname Bob, finished approximately 1.3 miles of the course, successfully navigating through sand, pits, and dozens of sagebrush bushes, before veering off course and getting caught by a barbed-wire fence. Alas, no team finished the race. The farthest distance covered by any entry was 7.4 miles.

## Engineers Design Radar Chip

Ali Hajimiri, an associate professor of electrical engineering, has designed the

world's first radar on a chip--specifically, a novel antenna array system on a single, silicon chip.

## Caltech No. 2 in 2003 Patents Awards

For the first time, Caltech moved into second place among all American universities in the number of annual patents awarded, according to the U.S. Patent and Trademark Office. For 2003, Caltech was awarded 139 patents, which was slightly ahead of MIT's 127 patents but behind the University of California System with its 439 patents.

## Researchers Demonstrate Existence of Earthquake Supershear Phenomenon

As if folks living in earthquake country didn't already have enough to worry about, scientists have now identified another rupture phenomenon that can occur during certain types of large earthquakes. The only question now is whether the phenomenon is good, bad, or neutral in terms of human impact.

Caltech geophysics graduate student Kaiwen Xia, aeronautics and mechanical engineering professor Ares Rosakis, and geophysics professor Hiroo Kanamori have demonstrated for the first time that a very fast, spontaneously generated rupture known as "supershear" can take place on large strike-slip faults like the San Andreas. They base their claims on a laboratory experiment designed to simulate a fault rupture. The Caltech experiment is the first time that spontaneous supershear rupture has been conclusively identified in a controlled laboratory environment, demonstrating that super-shear fault rupture is a very real possibility rather than a mere theoretical construct.

## Caltech Coders Vie for World Title

The team of three Caltech students who traveled to Prague in March to compete in the Association for Computing Machinery's International Collegiate Programming Contest placed in the top 10 among 73 competing teams from around the world.

# Brain Tumors Could Form From Stem Cells Gone Bad

By ROBERT TINDOL

PASADENA, Calif.-Researchers in the Division of Biology at the California Institute of Technology, in collaboration with the UCLA's Jonsson Cancer Center, have discovered that brain tumors may be derived from the cells that form the nervous system. These cells, called neural stem cells, may help researchers understand how this cancer begins, which could one day lead to improved diagnosis and treatment.

The study, published this week in the online edition of the peer-reviewed journal Proceedings of the National Academy of Sciences, suggests that pediatric brain tumors develop from cells that have many of the same characteristics as neural stem cells. However, these cells also have an abnormal ability to grow and change. "We want to understand the transformation process from a normal stem cell to a cancer cell," said Houman Hemmati, the lead author and an MD/PhD student in the UCLA-Caltech Medical Scientist Training Program. "Recent work has shown that some cancers can arise from abnormal cells that are like stem cells in that they self-renew and produce the different kinds of cells that make up a tumor.

"This is a new way of thinking about the

fundamental origins of cancer that promises to lead to better diagnostic tests and improved cancer-specific treatments in the future," said Hemmati.

"This study makes an important advance by demonstrating a previously unrecognized connection between stem cells and pediatric brain tumor-derived cells. By viewing tumors as a type of embryonic cell gone awry, this opens up new possibilities for diagnosis and treatment," said Marianne Bronner-Fraser, a developmental biologist and the Albert Billings Ruddock Professor of Biology at the California Institute of Technology.

"We believe that neural stem cells, found normally within our brain and spinal cords, could transform into cancer cells," said Harley Kornblum, a pediatric neurologist, member of UCLA's Jonsson Cancer Center and an associate professor of molecular and medical pharmacology and pediatrics at UCLA.

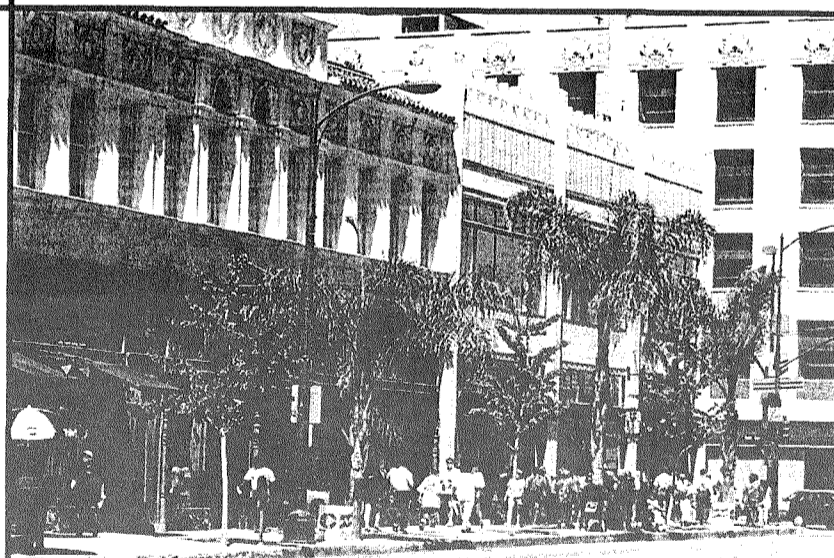
"This work also demonstrates that major advances can be made by combining different scientific perspectives -- tumor biology, stem cell and developmental biology. The joint UCLA/Caltech program fosters this important and cross-disciplinary discovery," said Bronner-Fraser.



Dr. Marianne Bronner-Fraser believes that this study could lead to an advance in cancer diagnosis and treatment.

Courtesy of [www.garvan.unsw.edu.au](http://www.garvan.unsw.edu.au)

## Be A Hometown Hero



## Bring your meetings home to Pasadena!

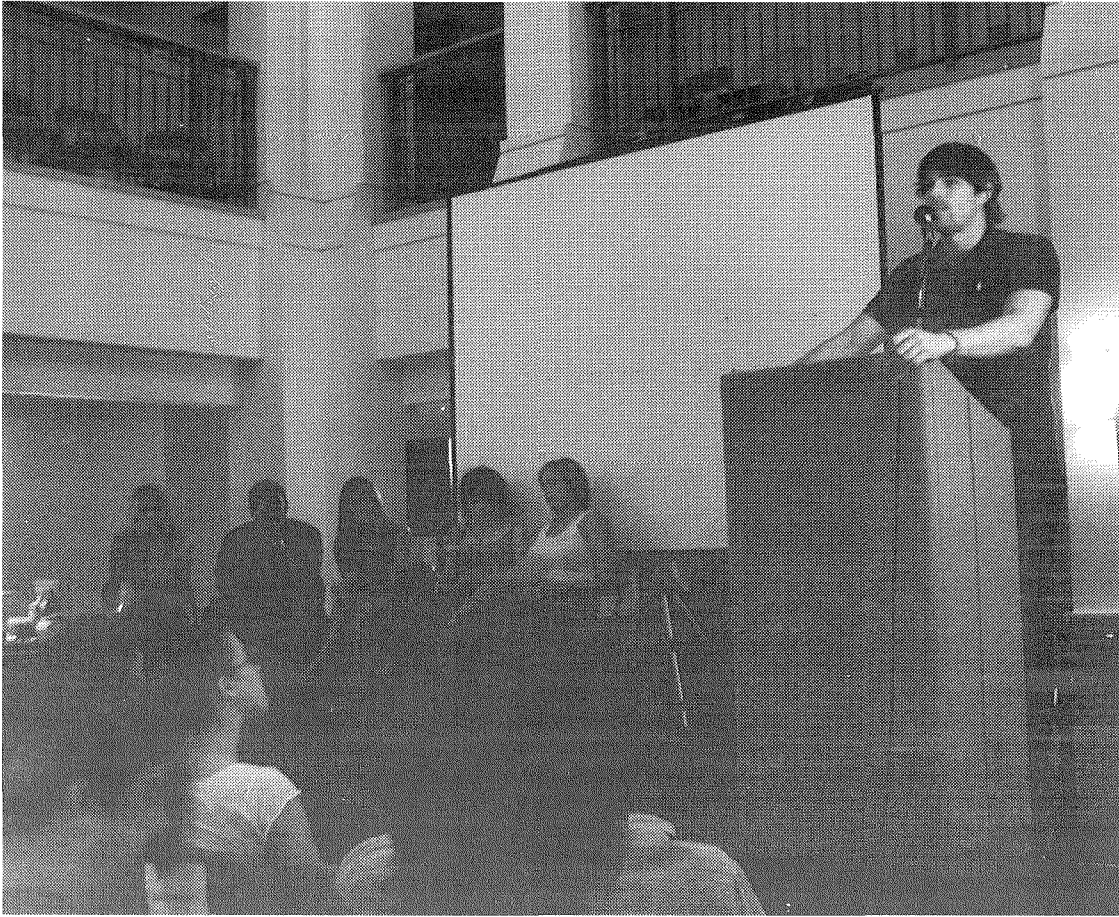
If you belong to an association, corporation or other group that holds meetings or conventions, why not bring them home to Pasadena?

Pasadena's accessibility, first-class meeting facilities and renowned leisure pursuits make it the ideal meeting destination. You will be a hero for suggesting Pasadena to your group. Additionally, your meeting will generate tax revenues for our city's general fund, which benefits everyone. But how can you get the ball rolling?

Just call Matt Hourihan at (626) 795-9311 or e-mail him at [mhourihan@pasadenacal.com](mailto:mhourihan@pasadenacal.com). If your group decides to meet in Pasadena, you could be eligible to receive one of several fabulous prizes!

**Pasadena: The city that feels like a village.**

Pasadena Convention & Visitors Bureau  
171 S. Los Robles Avenue  
(626) 795-9311 (800) 307-7977 [www.pasadenacal.com](http://www.pasadenacal.com)



V. Tran/The California Tech

Randy gives his presentation on conflict resolution with the rest of the Real World cast in Avery. He emphasized how important it is to budget time and have a positive attitude.

## Cast Discusses Issues Important in College

*Continued from Page 1, Column 3*

Jacquese, age 19, was the next to talk. His video showed Jacquese having to deal with a great amount of prejudice and how he handled those situations. In his introduction, he described his definition of diversity and through it hoped to promote tolerance and inclusion. As he said, "Everyone in this room has treated someone wrong or has been treated wrong."

He encouraged everyone to step out of their comfort zones and thanked the Real World cast for sharing their lives with him and teaching him about different types of people.

Jaime added to Jacquese's definition of diversity with her own experience of dealing with growing up Korean with first generation, traditional parents in San Francisco. Her parents came to the U.S. 23 years ago, but are still coping with American etiquette. She recalled how when she was younger she was embarrassed of her parents' handicap, but has since come to accept and value her heritage. Said Jaime, "It's cool to be different."

21 year old Frankie from Kansas spoke on what the MTV crew called "cutting," or self-mutilation. Self-injury is the highest with college-age females, who generally deal with it with cover-ups and secrecy. She herself hid the fact that she would cut herself from family and friends for eight years. To her it was a coping mechanism—a way to stay alive and not a suicide attempt, but simply to release pressure. People who cut often have self-worth issues, that are exacerbated when other reject them further because they are "cutters."

In her most recent episode, she cut herself so badly she had to go to the ER and get stitches. And when the doctors looked at her as someone who wasn't as worthy of care as the others there, she realized that she had to stop. Frankie had this bit of advice for us: "If you want to help someone they're not going to stop unless they want to. The attempt should be based

on their desire to control it. Talk to them, it removes the shame. Be supportive, available and compassionate."

Robin, 23, faced seven years of bulimia. It began in high school when she was a cheerleader and each week was weighed on a scale. As she was one of the heaviest on the squad, she soon discovered she could get thinner if she vomited everyday after lunch. When she got to college and made the JV and later on Varsity cheering squads, she believed it was because she had lost so much weight. Robin had become psychologically and physically dependent on purging. When she realized she had acquired heart palpitations due to her eating habits, she talked to a school psychologist and realized that it wasn't a food problem, it was an image problem and has since been healing.

Randy, one of the oldest in the group at the age of 24, spoke on conflict resolution and how he had to deal with conflicts, especially during the four months spent taping Real World. It's often stress that causes conflict and Randy encouraged everyone to be realistic with our demands on ourselves and on others, to budget our time and to have a positive mental attitude to relieve stress.

Brad, 22, spoke about drugs and alcohol. Although previously a fairly heavy drinker, since Real World has aired and has seen himself on TV drunk and with his judgment impaired, has slowed down on the drinking. Commented Brad, "You want to go away to school, have a good time and drink on weekends, but you have to know your limits." He noted that it's important to point out to friends and family if they have a problem.

A question and answer session followed. On the event, Tom Mannion, Senior Director of Campus Life, stated, "It is a really neat opportunity to hold an open discussion (with a very visible group) about many non-academic issues facing college students today."

## Robot Base on Mars Among Elachi Goals

*Continued from Page 1, Column 5*

Google, beating out that other well known search word. The JPL mission website has had 10 billion hits in three months, a record in the history of the Internet.

For the upcoming decade, Dr. Elachi laid out a concrete mission plan for explorer Mars. This includes sending more rovers, launching an orbiter with an imaging spectrometer of capable of sub meter resolution and establishing a robotic base on Mars.

In the nearer time frame, many exciting things will happen. The Cassini probe is fast approaching Saturn and will enter orbit on June 30th. Next January 14th, Cassini will send a lander to Titan, which has an atmosphere of the same density as our own and is a possible place for life. The Stardust mission, which flew by a comet on January 2nd, will be com-

ing back with a sample in less than 2 years. Finally, the Genesis spacecraft, which has been collecting samples of the solar wind, will be coming back on September 8th.

The past year has also seen the successful launch of two space telescopes, GALEX and the Spitzer Infrared telescope. They have already generated impressive data about the universe.

In his conclusion to the lecture, Dr. Elachi told the audience what he hopes to achieve in the next 10 years. These are: robotic outposts on Mars, finishing the first step in the search for life in the solar system, taking a "family portrait" of our solar system and establishing the so-called "interplanetary internet", a communication system to tie all of the space probes being launched together.



Courtesy of saturn.jpl.nasa.gov

The Cassini spacecraft was launched on October 15, 1997 and is expected to arrive in orbit around Saturn in July. A probe will be launched in December to land on Saturn's moon Titan.

The California Tech  
Caltech 40-58  
Pasadena, CA 91125