# The California Tech

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February 2, 2004

### Loram Ready to Take Office, Keep Promises

#### By KEVIN BARTZ

Galen Loram '05 has always had a problem fitting in.

Just ask his Goth buddies in Hollywood last Friday night. Is it normal to see a Board of Control chair strutting and writhing, clad in black and pasty white, pulling off classic Gothic moves like the Chicken Dance and the Spin Cycle?

Or from nine to five, you could turn to the faculty. Do buttoneddown administrators normally befriend, negotiate with, let alone listen to a Scurve sporting violet hair and a death metal T-shirt?

But somewhere between a 15day streak of 105-degree yoga and MRI brain-scan sessions with people playing economic games, Loram has pulled together quite a coalition--a base of support spanning everyone from the regulars at Ricketts' Thursday Night Drinking to top figures in the AS-

CIT establishment.

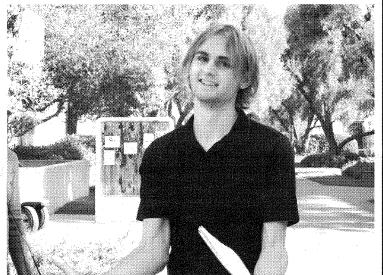
And that coalition came out en masse last Monday, handing a supermajority of votes in this year's ASCIT presidential election to the outgoing BoC Chair who'd

Two-year BoD member Andrea Vasconcellos '05 came in second with just under 30% of the 352 votes cast; writer and talking head Libin Zhang '05 placed

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"He got my vote," said outgo-ing ASCIT President Tom Fletcher '04. "I like the way he handles people. I'm very impressed at the friendships he manages to maintain across so many different lines, at how well he knows people across all of the seven houses while still being a hardcore Scurve while still managing to schmooze with faculty as well. I literally think of him as a coalition-builder."

just dyed his hair bright blue.



L. Tran/The California Tech With his beacon like blue hair, Galen Loram is ready to accept the duties of ASCIT President and listen to student concerns.



### Ig Nobel Prize Recipients Induce Humor, Thought with Triumphs

#### **By CHRISTINE CHANG**

Each October, the dignified halls of Harvard University host a ceremony attended by multitudes of people, including Nobel Laureates, to honor people who advanced their respective fields with valuable achievements.

Celebrating accomplishments such as Murphy's Law and the creation of the Association of Dead People, the Ig Nobel Prizes celebrates those discoveries which "make people LAUGH, then make them THINK."

"Nothing would seem like a

breakthrough unless it seemed funny or ludicrous at first," said Marc Abrahams, editor and cofounder of the "Annals of Improbable Research" and father and master of ceremonies of the Ig Noble Prizes, in a talk in Beckman Auditorium on Wednesday January 28.

The list of 2003 winners included Dr. John Paul Stapp, Edward A. Murphy, Jr. and George Nichols, the creators of Murphy's Law which states, "If there are two or more ways to do something and one of those ways can result in a catastrophe, someone will do it."

During his speech, Abrahams invited two special guests onto the stage to talk about Murphy's Law: Nicholas T. Spark who has researched and written an article about the history of the theory and Nichols. With characteristic humor, Abrahams limited each speaker to five minutes, even choosing an audience member to act as time keeper.

Both Spark and Nichols devoted their five minutes to Stapp, a pivotal member of the experiment which gave rise to Murphy's Law. Studying the limitations of the

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### World Record Broken By Local Teen During Cube Tournament

#### **By MARK POLINKOVSKY**

On the evening of Saturday, January 24, history was made in Winnett Lounge. The first-ever Caltech Rubik's Cube Tournament pitted local cubers against each other in a competition for an

the previous night from instructional videos by Tyson Mao, the tournament director.

Notable among the competitors were Lars Petrus, a world-famous cuber. He competed in the original World Championships in 1982, as the Swedish champion. Shotaro

to be his biggest competition. Yet, the outcome of the tournament was improbable and exciting.

On his very first solve, Macky beat the official world record of 16.53 seconds with a time of 15.07 seconds. After this, it became clear who the winner would be. In all, Macky bested the offi-

### Women's Trip to JPL Sponsored by JUMP

#### **By DIANA LIN**

On Tuesday, January 6 approximately 15 female undergraduates including a few Caltech staff members went on a tour of JPL organized by the JPL Undergraduate Mentoring Program (JUMP) for Caltech Women. Committee members of JUMP include both women managers, scientists and engineers at JPL and staff from the Caltech Women's Center. The tour is an annual event to encourage and aid more women in fostering their dreams to become scientists and engineers. Most of the students were freshmen, but there was a small handful of upperclassmen. Some students were there eager to make connections to find a job, while many were there just to explore and consider opportunities in the future. Students had to go through a lot of security clearances before entering the JPL facilities. They had to give social security numbers and show two forms of ID before they were given JPL Tour stick-

ers, which would permit there presence within JPL. The stickers had a 24 hr. expiration time because it had red ink stripes that would bleed through in an allotted time period

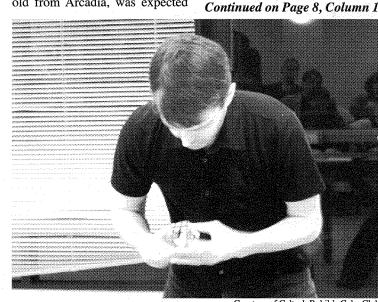
official stack-mat timer. The contest started at 7:00 pm and ended at 10:30 pm, after three exciting rounds of cube-solving.

From the minute the doors opened for registration, competitors and fans could be heard discussing strategies and algorithms. The sound of cubies (those little cubes that make up the Rubik's cube) hitting the floor echoed throughout the room.

The competitors were a particularly varied group. They were of all different ages and occupations, but one thing brought them together: The Caltech tournament was the first local tournament and everyone was excited to have a chance to compete.

In all, twenty-six people competed, some of them seasoned veterans, while others had just learned to cube. In particular, Mark Sullivan and Kai Zhu, both Techers, learned to solve the cube

"Macky" Makisumi, a 13-yearold from Arcadia, was expected



Courtesy of Caltech Rubik's Cube Club In a blur of hand movement, world famous cube solver Lars Petrus completes a Rubik's cube during last Saturday's tournament.

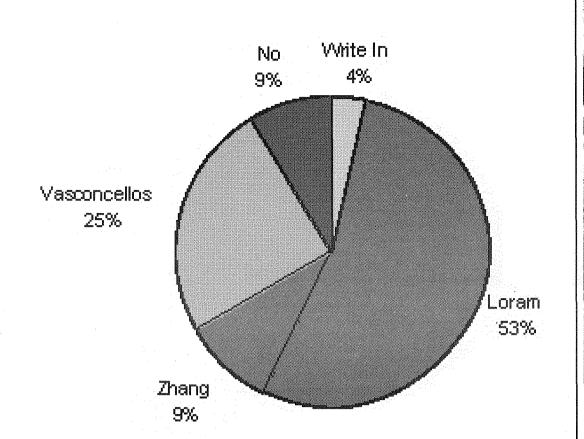
Once inside, students and staff members were happily welcomed by breakfast and JUMP committee members who told their story about how they went into science and engineering and came to work at JPL. Then they were led on a series of four half hour tours all presented by women.

At the Spacecraft Assembly Facility, visitors viewed from outside people dressed in white lab coats and plastic hair and beard covers assembling spacecraft in a clean environment.

And boarding JPL's bus, Caltech members were taken to another facility where Becky Castano presented the Rocky 8 Rover, a Mars Exploration rover analog.

In the Mars Yard, an enclosed sandy area about ninety square feet with many rocks, made to

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### Loram Sweeps Election; Plans To Bring Back Annual BoD Retreat

#### Continued from Page 1, Column 2

third at just over 10%; and Loram swept balloting with a commanding 61%, 215 votes.

The result wasn't a surprise to most. Mainstream circles early on tagged Loram the front-runner and while other candidates dealt in what many saw as dubieties, Loram crafted a broad-reaching platform that ran the gamut from streamlining club funding and instituting Tuesday morning bagels to hammering out a deal with faculty on the long-awaited renovation of the student houses.

"He has experience working in the various student government positions and knows how the system works," lauded outgoing Upperclass Director at Large Will Coulter '05, "and can probably exert himself in a variety of ways beneficial for students."

And now, first on the agenda for Loram, who pinned his specific promises to his larger theme of new unity, is pulling together those campus segments whose oft-disparate efforts he's determined to coordinate.

"To address student concerns, I want to make things run a little bit more smoothly," he explained, "to smooth out relationships between students and the administration, between students and undergrads once-annual ASCIT Retreat, a tradition abandoned by Fletcher in which the nine newly elected directors leave campus one weekend to nail down budget decisions. "When you know people personally in addition to just the position it's easier to respect their views and to see them in a more

human sort of way," said Loram. He will also make permanent Fletcher's change of locale for weekly BoD meetings, from late nights in the basement of the SAC to noon Wednesdays out in the open on the Olive Walk.

Then he must bridge the larger sects, like Caltech's virtual triumvirate of undergraduates, the faculty and grad. students. It's a challenge, but one for which Loram hopes his prior relationships will come in handy. "I've managed to get around with a lot of people," he said, "a very diverse group of people, whether it's students from the various houses or whether it's faculty."

You can say that again. With administrators, his qualifications are clear: he sat on the fire policy, freshman admissions and financial aid committees, not to mention a group charged with finding a new admissions director. He also collaborated with a range of faculty in investigations over his two years in the BoC. It all adds up to what Fletcher sees as a major advantage in making students' voices heard. "I think the faculty have gotten to know him over the year as BoC chair," said the departing ASCIT president. "They're probably coming around to appreciate the work he's done there. I think he's well-positioned to do the job." Financial Aid Director David Levy, who sat with Loram on three committees, agreed that faculty will be receptive. "He's a very good listener," said Levy. "I've worked with him on the fire policy and have always found him to be very articulate, very conscientious, very skilled in explaining the student perspective on things." Nor need students question whether Loram cares. Throughout two years on the BoC, he strove to set a softer tone, a tone more amicable to the mindset of the accused and more inclined to lend the guilty a second chance. Teaming up with Writing Center Director Steven Youra, for instance, he opened a workshop for students accused of plagiarism spawned of ignorance rather than malice.

In the meantime, he didn't turn a blind eye to the little things. He served two years and will serve a third as Ricketts' house treasurer and often accompanied Fletcher in picking up doughnuts for students on Friday mornings. And if that wasn't already enough, he works the cashier once a week in Chandler from noon to one.

In fact, his very first position as a representative-at-large in the BoC, where he launched his political career, was for Loram simply an extension of his "sense of duty." Then-president of Ricketts House Rick Karnesky '02 had encouraged him to sign up for the BoC and the rest is history.

"It was more a sense of duty than anything else," said Loram. "I'd always been enamored by the fact that I could take my exams in my room at two o'clock in the morning with Nine-Inch Nails blaring and it seemed really interesting to see whether the honor code really did work and how it worked."

The BoC presented Loram's first challenge in managing people. He had to bridge the tougher, by-the-book style of those like BoC Secretary Harris Nover '04 with his own gentler approach. "One of the reasons we worked really well together as chair and secretary was that we ended up having about as opposite views on what the enforcement of the honor code as possible," he recalled. But after what he termed a few 'prolonged exchanges of ideas,' the two ended up on the same page. In fact, Loram jokes that he and Nover so came together that he ended up "leapfrogging over Harris.' And starting in a few weeks, with the stakes high and the whole campus watching. Loram faces an even greater slate of challenges. Engineering and Applied Science is set to phase out two student computer labs--the ITS and UGCS labs--and it's up to Loram



Caltech Women visited JPL as part of the JPL Undergraduate Mentoring Program.

### Fancy Presentations Impress Undergrads

#### Continued from Page 1, Column 5

stimulate a section of the Mars landscape, Rover 8 was slowly driven remotely over the rocks. The rover looked so fragile as it crawled about 5 cm/sec across the area.

It had pointy spikes on its hand-sized wheels, which allowed it to climb over rocks about fist-sized. It had software which programmed it to avoid larger obstacles. It was hard to imagine such a creature had survived the precarious voyage to Mars, embodying the hopes and dreams of the human race to investigate Mars.

Students were also shown a presentation about the groups effort to develop better software to improve the artificial intelligence of the rovers to make them more autonomous.

Scientists and engineers would like the rovers to be more independent so that<sup>\*</sup> the rovers can react and identify interesting objects and opportunities when navigating foreign landscapes.

Dr. Karen Buxbaum introduced the biotechnology and planetary protection group's (BPP) labs and goals. The group is central to making sure spacecraft are biologically clean entering and exiting the Earth's atmosphere to protect biological life inside and outside the Earth.

The Mars exploration taking place now has required BPP to meet even stricter standards for cleanliness. And at another building, Peggy Li, a Caltech alum, presented three demos on high performance scientific visualization.

Students were presented with dazzlingly colorful images. One was an exploration of Amazon SAR images using a digital light table, another was a interactive visualization of massive astronomical datasets using electronic light table and another was an animation of 3D, time-varying ocean modeling and earthquake model datasets.

The tour ended with a cheerful luncheon with many women at JPL, half of who are Caltech alums, where students were given the opportunity to chat with these women and gain advice about the path towards success in engineering and science.

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and between grad. students and undergrads, which have historically been a little rough."

One unknown is the yet-to-bedetermined Board of Directors. Though most agree that the situation improved under Fletcher's watch, relationships within BoDs have been tense in recent years. Throughout the administration of Ted Jou '03 meetings often drowned in shouting and acrimony, according to one member.

"From what I heard at the end of Ted Jou's administration the BoD was a little fragmented and at each other's throats," said Loram. "I think I'd really like to do my best to avoid that and lead in such a way that people work well with each other and grow together, because I think if we can't work well together as a group that doesn't say much for how we work with people outside the BoD."

Loram plans to reinstitute the

to carry out his campaign promise of expanding house labs to compensate.

Administrators are braced to move forward on plans to renovate the student houses and it's up to Loram to make good on his vow to save \$12 million by relocating students to Catalina Ave. housing in the interim. ASCIT's facing a budget shortfall and it's up to Loram to find ways to raise money.

Not to mention his 60-day yoga challenge. If he can do every Bikram yoga position every day for 60 consecutive days, he and his roommate win a potluck from a local studio.

Of course, it's a potluck he hopes to share with students.

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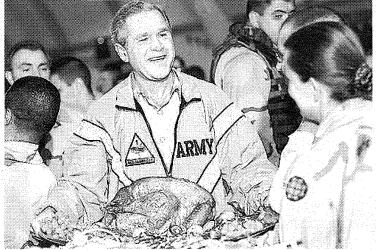
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### Bush Praises Military, Cuts Troops' and Veterans' Benefits

#### **By PARAG BHAYANI**

Near the end of his State of the Union Address, President Bush spoke of receiving a letter from a girl that expressed her heartfelt support for American soldiers and asked what she could do to help our nation. Bush responded by telling the girl to say "Thank you" when she sees a man or woman in uniform. Most Americans share this sentiment; the same thing cannot be definitively said about the White House. This administration has, during its three years, consistently advocated spending cuts for military benefits and welfare. Perhaps the president may want to consider thanking troops in the future by taking care of them, rather than making cloying, sentimental statements.

The budget for the 2004 fiscal year was approved by the House of Representatives last March. Just a day after the U.S. launched the invasion of Iraq, and a few hours after Congress passed a resolution praising the soldiers for their commitment, the House approved Bush's plan for federal spending, with all but one vote coming from Republicans. One goal of the proposal was to limit government spending; however, some of the major items targeted were, shockingly enough, benefits for war veterans. The budget cuts amounted to a massive \$14.6 billion reduction in veterans' programs, including money for disabilities caused by war injuries, rehabilitation, health care, pensions for low income veterans, education, and housing benefits. Also part of the plan was to charge premiums for health insurance to



courtesy of www.seattletimes.con

veterans making at least \$25,000 a year. Additionally, the 2004 budget proposed a \$1.5 billion reduction in funds to military family housing and medical facilities -- a 14% cut. Fortunately, after intense lobbying by the army veterans' group The American Legion, most of the appropriations were reinstated with bipartisan support. Still, one must consider that once upon a time, Franklin D. Roosevelt and a thankful nation provided all veterans with free medical care; it is clear that these days are now behind us.

In October, Bush gave a speech to the National Guard and Army Reserves in New Hampshire, telling them, "Your lives can be changed with the sudden call to duty. I want to thank you for your willingness to heed that important call, and I want to thank your families who share in your sacrifice." As it turns out, though, the soldiers were going to be sacrificing more than their bodies and lives in combat. Just two weeks after the President gave this address, the White House declared that it opposed a program to enroll guardsmen and reservists in the Pentagon's health insurance system that is available to full-time soldiers. This came despite a General Accounting Office report published right before this announcement which estimated that nearly 20% of guardsmen and reservists do not have some form of health coverage.

The most galling part of this agenda is that the administration, many congressional Republicans, and most conservatives have repeatedly denounced antiwar liberals as unpatriotic. Opposing the war (which was fought irrationally) is seditious and tantamount to treason, they say. (Of course, it was no problem when Republicans condemned President Clinton for sending troops to Kosovo in 1999 to prevent a genocide.) Liberals supposedly do not support the *Continued on Page 4, Column 3* 



*Left:* Geore W. Bush shows off a turkey that turned out to be a prop during his surprise visit to troops in Iraq on Thanksgiving. The trip was criticized as a ploy to lift falling approval ratings. *Above:* The President struts in a flight suit after a landing on the aircraft carrier U.S.S. Abraham Lincoln. His speech in front of a banner that read "Mission Accomplished" took on an ironic air in the following months, as American troops worked to suppress the Iraqi insurgency with only limited success.

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#### THE CALIFORNIA TECH COMMENTARY FEBRUARY 2, 2004

## Caltech Tip Sheet: Recent Advances

#### **By MARK WHEELER**

PASADENA, Calif. -- From a new type of metallic glass to new clues to the origins of brain tumors, a quarterly review of research at the California Institute of Technology. Visit http://pr.caltech.edu/media/ for further information on any of these items.

#### Joint Study Finds New Clues to the Origins of Brain Tumors

Caltech researchers in collaboration with 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.

#### "Bubbloy:" the Latest Invention from Caltech Materials **Scientists**

From the same Caltech lab that brought you "liquid metal," now used in the latest golf clubs and tennis rackets, comes bubbloy, a bulk metallic glass that has the stiffness of metal but the springiness of a trampoline. "You can squish it and the metal will spring back," says graduate student Chris Veazey, who has given the stuff the tentative name "bubbloy," a combination of "bubble" and "alloy." "One possible use is for the crumple zone of a car," he says. "It should make a car safer than one where the structures in the crumple zone are made of conventional metals."

#### **Engineers Announce More Promising Fuel Cell Electrolyte**

The quest for a cheap and robust fuel cell for future cars may be a bit closer now that Caltech scientists announced they're getting promising results with a new material that solves various limitations of previously tested fuel cells. "It's a whole new way of doing fuel cells that opens up tremendous possibilities for system simplification," says Sossina Haile, a leading authority on fuel cell technology.

#### **Caltech Geophysicists Gain New Insights on Earth's Core-Mantle** Boundary

Earth's core-mantle boundary is a place none of us will ever go, but researchers using a special highvelocity cannon have produced results showing there may be molten rock at this interface at about 1,800

water spiked with MTBE, and then compared the degradation in the spiked sample to that in water collected beneath JFK International Airport, New York. They demonstrated that the destruction of the MTBE in the crude sample occurred efficiently.

#### **Old Caltech Telescope Yields** New Science

Meet Sarah Horst, throwback. The planetary science major, a Caltech senior, used an old teaching telescope--the hoary 14-inch Celestron telescope located on top of Caltech's Robinson Lab--to do cutting-edge science that couldn't be done at the largest telescopes in the world.

Thanks to her initial work, Caltech astronomer Michael Brown was able to provide definitive proof that weather in the form of clouds exists on Saturn's moon Titan.

#### \$12 Million Grant Boosts Efforts of "WormBase"

The Caltech-led WormBase project, an ongoing multi-institutional effort to make genetic information on the experimental animal known as C. elegans freely available to the world, has been augmented with a new \$12 million grant from the National Human Genome Research Institute.

Improved knowledge of how a gene is expressed in one species--and as time goes on, how two or more genes interact--will provide new approaches for dealing with human disease and will almost certainly be the foundation for some important medical advances.

#### Gamma-Ray Bursts, X-Ray Flashes, and Supernovae Not As **Different As They Appear**

For the past several decades, astrophysicists have been puzzling over the origin of powerful but seemingly different explosions that light up the cosmos several times a day.

Now Caltech graduate student Edo Berger and an international group of colleagues have found that all three flavors of these cosmic explosions--gamma-ray bursts, X-ray flashes, and certain supernovae of type Ic--are in fact connected by their common explosive energy, suggesting that a single type of phenomenon, the explosion of a massive star, is the culprit. The main difference between them is the "escape route' used by the energy as it flees from the dying star and its newly born black hole.



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### **Photo-Ops Hide Uncaring Policies**

#### **Ccontinued** from Page 3

DISORDER"

American armed forces. Common sense dictates otherwise. Aside from congressional Democrats fighting to restore soldiers' and veterans' pay and benefits, many liberals have helped our soldiers while maintaining an opposition to the war. For example, the website http://www.anysoldier. us, created to allow supportive citizens to send care packages to overseas troops, expressly thanks Democratic presidential candidate Governor Howard Dean, a staunch war opponent, for encouraging his campaign supporters to donate to soldiers over the holiday season. Also, the site http://www.heromiles.org, started by Democratic Congressman Dutch Ruppersberger, allows for people to donate unused frequent flyer miles to soldiers so that they can fly home without incurring expenses. (As of January 1, 2004, the government now reimburses soldiers for flights: Hero Miles now allows for families of injured troops to visit their loved ones in military hospitals around the globe.) Governor Dean and antiwar liberal advocacy group MoveOn.org urged their supporters to donate to this cause as well

President Bush has spent more time fundraising for his re-election campaign than meeting with families of soldiers lost in combat. This behavior is all the more irrational when you consider that much of the money he raises right now has to be spent during the primary season, and there is no Republican challenging Bush for the nomination. The most we see of Bush supporting our troops are his meticulously-crafted appearances in front of cheering crowds of soldiers. One of the most blatant examples of the administration's obsession with image was the President's visit to the aircraft carrier USS Abraham Lincoln on May 1 to declare victory after the end of major combat in Iraq. He donned a military flight suit and landed in an S-3B Viking to a boatful of enthusiastic members of the Navy. This was a rather ostentatious display considering that as a young man, George W. Bush was granted a deferral from service in Vietnam after his father pulled some strings. He served instead in the Texas National Guard and went AWOL during his final year of service. This same man was now giving a speech under a banner that read "Mission Accomplished", although nearly everyone in the

world knew that the real mission in Iraq was just beginning. A few months later, the administration secretively planned a surprise trip to visit troops in Iraq on Thanksgiving Day. In the political stunt of the year, Bush triumphantly addressed the armed forces at Baghdad International Airport and then served up succulent turkey that was later revealed to be a prop for photo opportunities. In his 2-hour trip, Bush never set foot outside the airport to see what kind of progress was being made. Meanwhile, Democratic Senators Hillary Clinton of New York and Jack Reed of Rhode Island spent all of Thanksgiving weekend visiting soldiers and civilians at various bases and sites in both Afghanistan and Iraq, an event almost completely overshadowed by the President's visit. I do not doubt that President Bush stands behind American troops. However, if he and the others in power really want to demonstrate their support, they must take serious action and stop paying so much lip service. A great way to start would be to build a legitimate international coalition to help rebuild Iraq so that our troops on over-extended deployment can finally come home.

miles. Further, this molten rock may have rested peacefully at the core-mantle boundary for eons.

New Technique for Groundwater Cleanup

Until it was recently banned, methyl tert-butyl ether (MTBE) was added to gasoline to meet the oxygenate requirements established by Congress in the Clean Air Act Amendments. However, the benefits of MTBE came at a price. Leaks from storage containers and spills during transportation led to a growing problem of MTBE contaminating groundwater, including drinking-water sources.

Caltech's Michael Hoffmann and two colleagues applied the established technique of ultrasonic irradiation to the removal of MTBE from a crude sample of contaminated groundwater. They first analyzed the mechanism of ultrasonic degradation in pure

#### **Cosmic-Ray Detectors Installed** at L.A. Middle School

Last November, a large crane lifted two 250-pound, white, funnel-shaped cosmic-ray detectors on top of a science building at San Fernando Middle School. The detectors are the 50th to be installed in an array of cosmic ray detectors that are located at schools throughout Southern California.

In order to detect cosmic-rays. detectors must be deployed, like a large fishing net, over many square miles to capture signs of the incoming rays. Ultimately, the goal is to shed light on the identities of these mysterious travelers from far beyond our galaxy.

Since the war in Iraq started,

#### THE CALIFORNIA TECH COMMENTARY FEBRUARY 2, 2004



#### **By DANIEL LANGDALE**

I never saw a basketball game more impressive than the one your guys lost last night 108 to 16. Of course, you have to know what I know and think what I think to occupy that position; otherwise it sounds ridiculous.

#### What do I know?

- The opposition has spent probably four hours a day for the last ten years tossing free-throws, launching thirty footers and pounding lay-ups.

- Our guys have spent six hours a day for the last ten years unlocking the mysteries of physics, chemistry and mathematics toward the end

of reducing the problems facing the world which will, before long, mean no one will be playing basketball at all.

What do I think?

- I think that the Techers have made the right choice about how to spend their time.

- Î think everyone in the world should appreciate it.

The Caltech guys on the court last night took each moment as though they were down by one point, in the first quarter and in the fourth. They played with energy and enthusiasm, as though they appreciated the game and didn't think it was all about winning. That's the same orientation all the Caltechers regularly bring to the challenge of achieving winning academics - beating physics, beating chemistry, beating mathematics: "you by God subject mysteries are not going to carry the day here, I don't care WHAT the score is, I'm going to keep plugging!" That is gallant - even, pardon

me, virtuous.

And Roy - I know how you love to win and I appreciate the cost to you of looking totally professional really is fun.

at courtside. But those guys are well-coached and you displayed the confident air of knowing that

And guys? You actually played very well. To a practiced eye, it was clear that your getting thumped was the product of your priorities on spending time. There is no doubt in my mind that if you all had "wasted" the kind of time I did as a kid, you would have whacked them.

Techers - these guys deserve some support. What they do for self, team and school ought to register with us all as Olympic. Back at the east coast branch, as you may know, a cheer often goes up as a point is lost: "That's all right, that's okay, You're gonna work for us one day." I always thought that was a little too brash, on the edge of nasty (since it is surely true). So I challenge the poets among you to come up with a Caltech cheer that says "Keep in mind this is a game. We're having fun, believe it or not. But we take our real dedication into the lab and library where we do things that count!"

I just read a great line of doggerel from a candidate - who might deliver on that challenge (I am certain he won't mind being quoted without attribution). On "Why Caltech?" he writes, "Because I don't want to move to Massachusetts/I like the example Caltech's crew sets." I love it. Just like I loved watching the Beavers take the game into the face of the opposition last night - never mind the score.

So take a break from your schedule -9 to 5 for work, 5 to 9 for play, 9 to 5 for work, and 5 to 9 for sleep. Eat on the run. And get over to Braun to watch these amazing guys do their thing with your new cheer.

Whaddaya know. A game that

### Women Engineers Reach Out to Young Students Program a Success, Repeat Planned

#### **By NATALIE KRUK**

At 7 a.m. on Monday, January 26, five Techers sleepily packed up some liquid nitrogen, an LCD projector, laptops, dry ice, and various other materials into a jeep.

raising awareness of the role these disciplines play in the modern technological world.

A three hour presentation was put together which consisted of slide show presentations, science and math interactive demonstrations, and culminated in an egg drop contest in which the students were divided into groups to construct an egg drop design from plastic straws, a nylon stocking, tape and wooden skewers. At the end of the lunch hour, the tired but happy SWE members gathered up their supplies and returned to campus. It was a great time and the event got rave reviews, including a request from another school to coordinate a similar sort of activity for their GATE program. SWE is also involved in other community volunteer programs. Coming up on February 26th, SWE will be organizing an Introducing Girls to Engineering Day. Middle schoolers will be brought onto campus for hours of presentations and activities. Interested in helping SWE? Send an email to swe@its. caltech.edu.



Submit to the Totem! The Totem is now accepting submissions for the 2004 edition the the literary magazine. Anyone in the Caltech community can submit their poetry, short stories, artwork and/or photography to the Totem. Please send your work by email (totem@its.caltech.edu), or by campus mail (MSC 292).

The Beckman Political Internship will be available again this summer. The internship, supported by friends of Arnold O. Beckman, will pay a stipend of \$5,000. It allows a selected intern to spend the summer working in the office of a politician or a government agency and to see from the inside the process of government. The applicant is expected to make arrangements with the appropriate political persons or organizations. The internship is open to any Caltech undergraduate who intends to be a student next year. If interested, submit a proposal describing where and how you would use the stipend along with one faculty recommendation, to the Deans' Office, 210-87, or email machang@caltech.edu, by MON-DAY, MARCH 29, 2004.

The California State Society is currently accepting applications for the Bono-Capps Congressional Internship Program for the Spring 2004 term (beginning in March 2004). This internship opportunity is especially appropriate for students who are interested in working in a congressional office. The California State Society provides a stipend of up to \$1000 per month to the Bono-Capps interns to help defray their expenses. Students can learn more about the scholarship and get an application by going to *http://www.cssdc*. org/internship.html (note - this is a new html address). The deadline for applying for the spring term is 15 February 2004.

Caltech YESS Program. "The Young Engineering and Science Scholars (YESS) program is looking for Caltech postdocs and graduate students to serve as Instructors for the summer session taking June 27th to July 16th. The program, which is housed in the Office for Minority Student Education, brings together talented high school juniors and seniors from across the United States, in order to expose them to the many facets of scientific investigation. For further information and an application, please contact yess@caltech. edu. Applications are due Friday, February 6th, by 5:00 p.m."

Richard L. Taylor will give the 22nd Annual Leonidas Alaoglu Memorial Lecture in Mathematics Tuesday, February 3 at 4:15 p.m. in room 151 Sloan. The title of the talk is "Elliptic curves and modular forms."

Insights into the Origins of Human Brain Tumors" will be given by Houman David Hemmati, a Caltech-UCLA MD-PhD student in Biology. The lecture will be held in 101 Guggenheim Lab (Lees-Kubota Lecture Hall) on Wednesday, February 18 at 4 p.m. Refreshments will be served at 3:45p.m. For more information on the lectures, see www.its. caltech.edu/~els. Sponsored by the Graduate Student Council, the Graduate Office, Campus Life, and Graduate Housing.

The Monticello Foundation and Robert and Delpha Noland Summer Internships 2004. The Deans' Office is accepting propos-als for the Monticello Foundation and the Robert and Delpha Noland Summer Internships. Three to five Caltech undergraduate women (current freshmen, sophomores and juniors) will be given an opportunity to participate in research projects outside the Caltech-JPL community for ten weeks during the summer. Each student will receive a \$5,000 stipend. Applicants are required to identify the projects in which they wish to participate. All arrangements with the principal researcher will be the

responsibility of the student. Interested? Identify a sponsor for your experience at a research facility for a ten-week period. In a short essay, describe your project, and submit it to the Deans' Office, 210 Center for Student Services, along with two faculty recommendations.

PROPOSALS ARE DUE MON-DAY, MARCH 1, 2004.

#### **Women's Center Events**

1) The Society of Women Engineers would like to invite you to a question and answer session with BAIN & COMPANY. Are you interested in a career outside of science? Have you heard of "consulting" but are unsure of what it entails? Then please join us for lunch with representatives from Bain and Company. Where: Winnett Clubroom; When: Friday, January 30; Time: 12PM - 1PM; Lunch will be served. Hope to see you all there!

2) West Coast film premiere of the documentary EMMA GOLD-MAN: AN EXCEEDINGLY DAN-**GEROUS WOMAN February 5** 7:30 pm, Rock Auditorium, Broad Center. Open only to Caltech students, scholars, staff, and faculty. Discussion with documentarian, Mel Bucklin, to follow. Emma Goldman (1869-1940) was an exceedingly outspoken woman who spent three decades in the United States battling political and social injustice. In the eyes of some, she was the most dangerous woman in America. To others, she was an uncompromising voice for freedom. Goldman was an old-school soapboxer, pamphleteer, writer and publisher. She condemned capitalism, advocated the ideology of anarchism, was accused of fomenting the assassination of President William McKinley, crusaded for birth control, and led a campaign to oppose the draft during World War I that landed her in prison and paved the way to her deportation from the United States in 1919.For more information, call 626-395-3221. 3) The Maria-Goeppart Mayer symposium is happening on March 6, 2004 (Saturday) from 8 am to 3:30 pm at the San Diego Supercomputer Center, which is on the UCSD campus. Fundamental achievements in any one area of science crosses boundaries of all technical fields and resides in the realm of interdisciplinary research. Such were the achievements of Maria Goeppert-Mayer, a University of California, San Diego, Nobel Prize-winning scholar. The Maria Goeppert-Mayer Annual Interdisciplinary Symposium was established in 1996 by Kim Baldridge, adjunct full professor of theoretical chemistry with the University of California, San Diego, and associate director of

integrative biosciences with the San Diego Supercomputer Center. The symposium brings together researchers in computer science, biology, medicinal chemistry, physics, engineering, chemistry, and biochemistry. For more information or to register check out: http://www.sdsc.edu/MGM/

4) Women's Introduction to Self-Defense. Offers women an introduction to the physical techniques involved in self-defense. Participants learn a variety of hands on techniques along with the opportunity to rehearse verbal role-play scenarios. This training lasts 4 hours and is pre-requisite to the intermediate class with a full-padded attacker. Registration required! Saturday, January 31, 1-5pm. Classes are taught by Lauren Hines, http://www.assaultpreven-tion.com. Class size is limited. All classes are taught at the Women's Center, Center for Student Services, Bldg. #86. Registration is necessary! Please call 395-3221 or wcenter@studaff.caltech.edu

#### **Upcoming HPS Lectuures:**

6 February 2004 (4:00 pm 25 Baxter) Munro Seminar William Reddy (History, Duke University) "The Rule of Love: The History of Western Romantic Love in Comparative Perspective.'

13 February 2004 (4:00 pm 25 Baxter) Munro Seminar Robert Essick (UC Riverside) "Information and Knowledge on the Internet: The Case of the William Blake Archive."

\*\*\* 19 February 2004 (8:00 pm Beckman Auditorium) \*\*\* Larry Principe (Johns Hopkins)"Stories and Histories of Alchemy from Nicholas Flamel to Harry Potter" 20 February 2004 (4:00 pm 25 Baxter) HPS Seminar Larry Principe (Johns Hopkins) "Revisiting the Academie Royale des Sciences: Wilhelm Homberg and his Chemistry'

27 February 2004 (4:00 pm 25 Baxter) HPS Seminar Sabine Brauckmann (Konrad Lorenz Institute, Altenberg), The morpho-genetic field and the epigenetic landscape

5 March 2004 (4:00 pm 25 Baxter) HPS Seminar Nico Bertoloni Meli (Indiana University) "From Pap-pus and dal Monte to Galileo and Newton"

12 March 2004 (4:00 pm 25 Baxter) Munro Seminar Justin D'Arms (Ohio State) "Objectivity in Taste and Emotion."

One Act Theater (OAT) has received funding from MHF to produce evenings of one act plays this term. We need directors, actors, technical staff, and anyone who is interested in helping. If you are interested, particularly in directing (the play of your choosing), please email oat@its.caltech.edu and check the website http://www. its.caltech.edu/~oat/.

#### **Dance Classes Beginning Bellydancing** Saturdays, 12:45-1:45 PM, starts

5

They left campus to participate in a volunteer project, presenting the different engineering fields and pure sciences at Quail Summit Elementary School in Diamondbar.

They didn't really know what to expect and took to their task with both excitement and a bit of trepidation. Megan Greenfield (ChE, 2004), Lauren Wessel (ME 2005), Kim Popendorf (GeoBi 2006), Natalie Kruk (ChE 2006) and Erin Hartman (Undec. 2007), members of the Society of Women Engineers, undertook the Honda Project, which was a collaboration between the G.A.T.E. Program (Gifted and Talented Education Program) and Paul Honda, a parent of a child who had once participated in the program. SWE received a proposal from Paul Honda early on to introduce the fourth and fifth graders in G.A.T.E. to applications of science and engineering in hopes of

Caltech Ice Skating Night, organized by Caltech Ice Skating Club. Come join us for a night of ice skating fun and hot chocolate! When: Sunday, February 8, 8:30-10pm. Cost: FREE admission and rentals. Where: Pasadena Ice Skating Center, 310 East Green Street, 626-578-0801, www.skatepasadena.com. (The rink is across Green Street from Paseo, same building a Civic Auditorium, but enter in the back around the northwest corner of the building). If you want to drive, you can park for free at the parking meters on nearby streets or in Paseo parking lot (\$1 if you validate parking at Gelson's - with a small purchase).

If you have questions or want to join the Caltech Ice Skating Club mailing list, please email skating@caltech.edu.

The first 2003-2004 Everhart Lecture, "Cancerous Stem Cells:

1/10, 8 classes. Professional Instructor: Leela. Trial class fee: \$5 for students, \$8 for others. Caltech students full term fee: \$20 (\$2.50 per class!).Other Caltech community members full term fee: \$50 (\$6.25 per class!) CLASS SIZE IS LIMITED so RSVP to Kathy. Kelly@caltech.edu Class meets in the Braun Gym multipurpose room. No special clothing or shoes required.

#### **Intermediate Jazz**

Thursdays, 9:30-11 PM, starts 1/8, 8 classes, all held in the Braun Gym multipurpose room. Professional Instructor: Collette Sibal. Trial class fee: \$5 for students, \$8 for others. Caltech students full term fee: \$20 (\$2.50 per class!). Other Caltech community members full term fee: \$40 (\$5 per class!). We will also be working on choreography for a piece to be performed in the Caltech Dance Show (March 12 & 13).

### Provost Steve Koonin to Take Corporate Post at BP Sees Change as Opportunity to Confront World Energy Problems

#### **By JIM PERRY**

PASADENA, Calif. - Dr. Steven E. Koonin, the provost of the California Institute of Technology since 1995, is stepping down effective February 2. In early March, he will begin a leave of absence from his faculty appointment as professor of theoretical physics to assume the role of chief scientist for BP, based in London. That company, with annual revenues of roughly \$200 billion, is the world's second largest integrated oil company, and the largest U.S. oil and gas producer.

"Steve has been a remarkable provost of Caltech for nine years," said Caltech president David Baltimore. "His devotion to his alma mater provided exemplary leadership to Caltech's unique and very effective style of faculty-driven governance over this period. Steve's extraordinary ability to analyze an issue, extract the key elements and provide solutions has made working with him particularly rewarding. Caltech will miss Steve's leadership but he has given all one can expect to the very difficult provost's job and I personally will miss his companionship.'

Koonin, a 1972 alumnus of Caltech, joined the Caltech faculty in 1975, became full professor in 1981, and served as chairman of the faculty from 1989 to 1991.

"My time as the Institute's provost has been exhilarating, challenging, and rewarding. I've had the opportunity to work closely with, and learn from, two Caltech presidents. It has been a privilege (and a great deal of fun) to have helped formulate, articulate, and implement a compelling vision for the Institute's academic program," said Koonin.

He has overseen a major capital campaign and fund-raising initiative for Caltech's biological sciences, the implementation of a new administrative computing system, and the establishment of a relationship with the Gordon

and Betty Moore Foundation through a series of proposals that will shape the institute through the next decade. Among these has been Thirty-Meter Telescope project, in which he has played a leading administrative role.

Koonin derives greatest satisfaction from the people at Caltech, having overseen the hiring of some 110 of the Institute's 280 active professorial faculty and the appointment of six chairs of Caltech's academic divisions. During his tenure, the campus' research and educational activities grew by almost 40 percent.

"As I reflect on my time at Caltech, what emerges most clearly is the underlying strength of Caltech's research and teaching that stems from the quality of our students, faculty, and staff and the support from so many friends of the Institute," Koonin said.

He is looking forward to the challenges the new job will present to him. "This new position will afford me the opportunity to do some strategic thinking about one of the most important problems facing society--energy," Koonin said. "Among other duties, I will be responsible for technical input to the company's long-range strategies in an industry that has important economic, social, political, and environmental dimensions."

Koonin is a member of the **Council on Foreign Relations** and has served on a number of advisory committees for the National Science Foundation, the Department of Energy, and the Department of Defense and its various national laboratories. He is a fellow of the American Physical Society, the American Association for the Advancement of Science, and the American Academy of Arts and Sciences. His research interests include theoretical nuclear, many-body, and computational physics, nuclear astrophysics, and global environmental science.

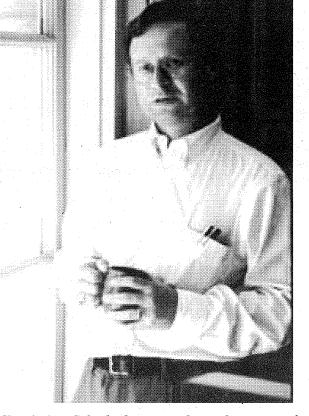
He is a longtime member (and

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SPRING BREAK '04



Koonin is a Caltech alumnus and served as provost for nearly nine years. He hired 110 of the Institutes' 280 active professorial faculty.

most recent chair) of the JA-SONs, advisers to the Department of Defense on technical issues associated with national security.

While serving as Caltech's provost, Koonin has continued to conduct research. His most recent project involves "earthshine" a phenomenon that allows the state of the earth's climate to be monitored by the brightness of sunlight reflected off the earth onto the dark part of the lunar disk. That brightness has diminished and then increased by a surprising amount during the past decade, suggesting a more variable global climate than is commonly assumed.

Koonin, who was born in Brooklyn, New York, earned his bachelor's degree in physics from

a leader in cell/tissue transplantation, is seeking a highly qualified individual to conduct

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Caltech in 1972, and a PhD in theoretical physics from MIT in 1975. Early in his career, he was a research

fellow at the Niels Bohr Institute from 1976 to 1977 and an Alfred P. Sloan Foundation Fellow from 1977 to 1979. In 1975-76, he received the Associated Students of Caltech Teaching Award, and the Humboldt Senior U.S. Scientist Award in 1985. In 1999 he received the E. O. Lawrence Award in Physics from the Department of Energy.

Koonin is the institute's seventh provost, a position created in 1962. A faculty committee will advise Baltimore on the selection of Koonin's successor. Edward M. Stolper, chair of the Division of Geological and Planetary Sciences, will be acting provost.

Note Auron

### NEW TRUSTEE, HEAD OF BIO-**TECH FUND, IS APPOINTED**

#### MANAGING PARTNER OF **5AM VENTURES ADMIRED CALTECH FROM YOUTH**

#### **By MARK WHEELER**

PASADENA, Calif .-- John D. Diekman, a founder and managing partner of 5AM Ventures in Menlo Park, California, has been named a member of the California Institute of Technology's Board of Trustees.

5AM Ventures is a seed and early-stage fund that focuses on creating and building biotechnology companies. The fund is designed to meet the needs of a burgeoning market in the life sciences, and focuses entirely on companies that are often too young to work with larger venture capital funds and need hands-on assistance.

Diekman has a long-running respect for Caltech that dates back to his days as a kid growing up in the Midwest.

"My mother, who did not go to college, always told me to go to Caltech to get my education," he says. "She read constantly, and envied people who could pursue a science education at a worldclass university.

"But at the time we couldn't afford the long trips to California from Cincinnati. The East Coast was closer, and I was able to hitchhike back and forth between home and Princeton.'

What he finds special about Caltech, Diekman says, is the quality of its teaching as well as its research. "So for me, it is truly an honor and pleasure to be associated with one of the best teaching and research institutions in the world," he says.

After receiving his AB in chemistry from Princeton, he went on to earn his PhD, also in chemistry, from Stanford University. Diekman is also a founder and former vice chairman of Bay City Capital, a general partner of the Aravis Venture, a European-based life science venture fund, and chairman of the Bio\*One Capital Fund.

Besides Caltech, Diekman currently serves on a number of other boards, including Affymetrix Inc., which is engaged in the development and manufacture of systems for genetic analysis in the life sciences.



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Please contact lebestky@its.caltech.edu.

#### NEWS

### Campus Celebrates MLK During Weeklong Commemorating Event

#### By IRAM PARVEEN BILAL

Starting with a lecture by Dr Wilmot James of Human Sciences Research Council in South Africa on how to achieve diversity in math, science and engineering and ending with an open discussion on King's Vision for Today's World, Caltech lined up a series of stimulating events for a commemoration week of Dr Martin Luther King, Jr.

Despite being a campus that has had challenging times in trying to reach the quintessential portfolio of a diverse institute, there was a good response to the activities and the need to realize King's concept of freedom, equality and diversity.

After enjoying a three day long weekend owing to an Institute Holiday in honour of MLK, Caltech resumed its week on Tuesday and started off the celebrations with a video presentation of Dr King's famous 1963 speech, "I have a dream" in the lobby of the center of student services. The nine-minute speech played in the lobby all throughout the day and there was also a poster display that featured the text of the speech for people who were interested in following along the video.

On Thursday, January 22, 2004, Caltech's Peaceful Justice Coalition (PJC) and Caltech Public Speaking (CPS) did a combined presentation titled, "Common Struggles: Dr. King on Civil Rights, Peace and Justice.

While PJC did an audio presentation of Dr King's speeches, members of CPS read a few of King's famous speeches, including his Nobel Prize speech and his last speech, titled "I Have been to the Mountaintop." The audio presentations explored his views on the connections between struggle for civil rights at home and the struggle for peace and justice abroad. CDs of Dr King's speeches were also passed out.

While issues of racism and diversity were at hand, our very active International Student Programs office had a few events too. The ISP sponsored two lunches during the week. The first one was a video presentation of "Martin Luther King, Jr. The man and the Dream" whereas the second lunch was a discussion led by Prof Morgan Kousser on "King's Vision for Today's World". The latter focused on what MLK had to say to scientists regarding their moral and ethical responsibilities in today's world climate.

The discussion started with the reading of an excerpt from MLK's "A Knock at Midnight" sermon. The piece focused on how scientists are responsible for the solution of problems regarding medicine, superstition and security and very recently, apparently national peace in the form of invention of WMDs.

Said Prof Kousser, "It is very interesting to note that Dr King starts his sermon with A Knock at Midnight but then ends it with a slight ray of hope by mentioning scientists and their possible lead towards progress in society."

The views that scientists are either morally responsible to a certain extent for the hazards created by science or that they are helpless about the out-of-control effects of their "innocent" inventions were thrown back and forth.

The discussion ended with a consensus that scientists definitely do have a role to play in the safe use of their intellect. In fact, ways to implement ethics at Caltech were discussed and it was proposed, for example, to have a section taught on ethics in at least every undergraduate core course.

The important thing to realize from King's message, it seemed from observing most of these activities, was that even though his speeches were delivered 40 years back and even though they seem like they were meant for that period, his ideas and his suggestions are very much relevant, especially in today's world.

Issues of diversity, racism, peace and morality have been and should be continually discussed in a campus where cutting-edge science research takes place and where hundreds of intellectual people around the world look up to for information and education.

We need to decide whether King was right or wrong in saying, "But Alas! Science cannot now rescue us."

Dr Martin Luther King, Jr Commemoration week was sponsored by the Cultural Programming Group, which includes the Women's Center, International Student Programs, the Office of Minority Student Education and the Caltech Y. It was also supported by Peaceful Justice at Caltech, Caltech Public Speaking, the Office of the President, the Division of Humanities and Social Sciences and the Officers of the Faculty.



Courtesy of www.louisville.edu Caltech celebrated Dr. Martin Luther King, Jr.'s ideas and accomplishments with a variety of events during the MLK Day week.

### Vagina Monologues To Help Women's Group

#### **By RACHEL NIEMER**

V-Day is coming to Caltech Friday February, 13 with a production of Eve Ensler's *The Vagina Monologues*. A diverse cast of students, staff, postdoctoral scholars, faculty and alumnae will give life to these poignant, funny and very moving monologues.

As organizer Rachel Niemer explains, "This is an opportunity for the Caltech community—women and men--to come together and take a stand against violence in all forms."

While this is the 6th year of the V-Day College Campaign, this is Caltech's first time participating. According to one cast member, Security staff Loren Kajitani, participating in V-Day is an "exciting, ground breaking and inspiring venture." All proceeds will benefit the LA Commission on Assaults Against Women.

Eve Ensler's Obie-Award-winning play, *The Vagina Monologues*, has been translated into over 25 languages and running in theaters all over the world, including sold-out runs at both Off-Broadway's Westside Theater and on London's West End (2002 Olivier Award nomination, Best Entertainment).

The play is based on Ensler's interviews with more than 200 women. The piece celebrates women's sexuality and strength and exposes the violations that women endure throughout the Award for Theater at the U.S. Comedy Arts Festival, as well as the 2002 Amnesty International Media Spotlight Award for Leadership and The Matrix Award (2002).

She is Chair of the Women's Committee of PEN American Center and is an Executive Producer of What I Want My Words To Do To You, a documentary about the writing group she has led since 1998 at the Bedford Hills Correctional Facility for Women.

The film had its world premiere at the 2003 Sundance Film Festival where it received the "Freedom Of Expression" award. In May 2003, she will receive an Honorary Doctor of Letters degree from her alma mater, Middlebury College.

V-Day is a global movement to stop violence against women and girls. V-Day is a catalyst that promotes creative events to increase awareness, raise money and revitalize the spirit of existing antiviolence organizations.

Through benefit performances of The Vagina Monologues, the V-Day College Campaign generates broader attention for the fight to stop worldwide violence against women and girls including rape, battery, incest, female genital mutilation (FGM) and sexual slavery. In its first six years, the V-Day movement has raised over \$20 million. The 'V' in V-Day stands for Victory, Valentine and Vagina. For more information, please visit http://www.vday.org

### Three Year Losing Streak Against Rival Cal State Fullerton Ended

#### By ALEX PAPANDREW

Caltech was finally able to banish its losing ways against Cal State Fullerton on Saturday, January 24 with a hard fought 24-22 win. In the past three years, the Beavers had led the Titans late and succumbed to late tries.

Fullerton continued the pattern with another try at full time, but on this occasion it was not enough and Caltech escaped with the win. The match began with a low, tumbling kick by Jason Keith into CSUF's forwards in the hopes of forcing a handling error. The ball was well taken, but Fullerton quickly committed a penalty and found themselves under heavy pressure deep in their own end.

Heavy forward charges by the Beavers were well defended, though Matt Hettermann was clearly robbed when his dive over the try line was ruled held up. The frustrated Beaver attack stalled and Fullerton was able to clear the ball.

Caltech marched the ball back inside the Titan 22 quickly, benefitted by knifing runs by James Harris. Fullerton's lack of ruck discipline again surfaced and Caltech was awarded another penalty from about twenty meters out. Keith punched a high kick which appeared to pass within the right upright, but was called wide by the Fullerton touch judge.

The Titan 22 drop was clumsily taken and Caltech was able to secure possession in good attacking range. The Beavers took CSUF by surprise as 8-man Alex Papandrew scooped the ball from the back of the scrum and ran to the blind side, drawing the opposing scrumhalf and flanker. Papandrew was taken down but was able to place the ball quickly along the ground to scrumhalf Carlos Herrera, who expertly gathered the loose ball and scampered into the corner for the first points of the afternoon. Keith's conversion missed but he quickly recovered, slotting a penalty minutes later for an 8-0 Caltech lead. CSUF answered with two quick tries of their own. An intercept was returned deep into Beaver territory and a try grounded a few phases later after a few missed tackles. Later, as Caltech threatened again, a clever attacking kick by Andrew Robinson into the corner was squandered, as the Caltech backs took poor angles and allowed a 70 meter counterattack try to the Fullerton fullback. Luckily both Titan conversions \_\_\_\_\_



Courtesy of foos.caltech.edu

8-man Alex Papandrew scored for the Caltech Rugby Team and took played a key role during the team's victory over Fullerton.

world.

Ms. Ensler is the recipient of a Guggenheim Fellowship Award in Playwriting, the Berrilla-Kerr Award for Playwriting, the Elliot Norton Award for Outstanding Solo Performance and the Jury

were missed and Caltech was within striking distance at 10-8. Jason Keith banged home another penalty before the half to put Caltech in the lead, 11-10.

The second half featured more exciting play, the specifics of which were clouded by the fact that this chronicler was struck rather hard in the noggin early on. An unconverted try by Fullerton was negated by two more penalty goals by Keith, giving the Beavers a 17-15 lead going into the final fifteen minutes of play.

The game appeared to be sealed minutes later, when Papandrew and Herrera again burst from the Tickets go on sale February 2 and are available at the Caltech Y.

back of the scrum towards the blind side. After Herrera froze the winger, Papandrew was able to take it in on his own for the try. Keith added the points for a 24-15 Caltech lead.

Fullerton was able to put a scare into the Beavers in the 80th minute with a daring fullback charge down the touchline that resulted in a converted try, but it was too little too late as the match ended 24-22 in favor of Caltech.

Caltech Scorers: Tries: Herrera, Papandrew Pens: Keith (4) Cons: Keith (1)

#### **FEBRUARY 2, 2004**

# Murphy's Law Creators, Legally Dead Activist Among Winners

#### Continued from Page 1, Column 5

amount of force a human body could withstand during extreme deceleration, a team of scientists which included Nichols and Stapp performed experiments at Edwards Air Force Base in the 1940's.

Originally designed to use dummies as subjects, the experiments consisted of a "human decelerator" with a 45-foot braking system and 1,000-pound-thrust rockets which would be propelled down a railroad track and then suddenly stopped.

Upon being assigned on the project, Stapp said while patting a dummy, "We won't be using this. We're going to be using human subjects," Nichols recalls.

Stapp volunteered to act as the subject, suffering multiple injuries, including hemorrhaged eyes from a run when the decelerator hurtled down the track at 630 miles per hour and was stopped in one-sixteen-hundredth of a second.

Through all the pain, however, Spark notes that Stapp never lost his sense of humor.

"Human aptitude for ineptitude makes any human discovery a miracle," Stapp said, according to Nichols. Similarly, Murphy's Law also arose from this project and the shrewd observations of Stapp.

After both Spark and Nichols exhausted each of their five minutes, Abrahams once again took the stage and resumed to list the 2003 winners of the Ig Nobel Prizes, eliciting peals of laughter from the audience.

The list included Yukio Hi- Prizes," said Abrahams. rose from Kanazawa University, who won the Ig Nobel Prize for Chemistry for his chemical investigation of a bronze statue which mysteriously did not attract pigeons.

The Ig Nobel Prize for Economics was awarded to Karl Schwarzler and the nation of Liechtenstein for making their entire country available for rent for corporate conventions, weddings, bar mitzvahs and other such gatherings.

Other winners were Lal Bihari, who captured the Ig Nobel Prize for Peace, for leading an active life though legally dead, campaigning posthumously against "bureaucratic inertia and greedy relatives," and founding the Association of Dead People.

In rural regions of India, such as where Bihari resided, relatives gaining to inherit could bribe bureaucrats to declare an individual legally dead, which occurred to Bihari. However, he fought back, contacting others who had suffered the same fate and organizing them to protest.

"He was literally giving people their lives back. Few people have to do their best work after their dead," said Abrahams with a smile.

In accordance with the bizarre nature of the winners' accomplishments, the Ig Nobel ceremony blends humor and informality to provide a night of entertainment.

"The 1200 person hall at Harvard is dripping with dignity, except on the night of the Ig Nobel

Each year, the ceremony is given a theme, such as "Nano," which was this year's theme. Everything, from the awards, which this year featured a transparent plastic cube which, Abrahams said, "contained a solid gold bar one nanometer long," to the annual opera revolves around this theme.

However, one aspect which remains constant from year to year is the involvement of real Nobel Prize winners in the ceremony as the presenters of the awards and singers or actors in the opera.

'Sometimes, the Nobel Prize winner is more excited to meet the Ig Nobel Prize winner. Each time they meet, it is a magical moment, like two opposites facing each other," Abrahams said.

Abrahams began his career as an editor in 1990 with the "Journal of Irreproducible Results." After the publisher decided to end the project in 1994, the founders and the editorial staff left the publisher and established the "Annals of Improbable Research.3

On the editorial board, the magazine boasts more than fifty scientists, eight Nobel Laureates and the IQ record holder, as well as a convicted felon.

Abrahams graduated from Harvard, noting wryly that he was only one year behind Bill Gates. "Apparently my mistake was in graduation college," he said.

Abrahams continued to speak with his wry humor until the end of his speech, which he ended as he ends every Ig Nobel Prize ceremony.

If you did not win an Ig Nobel Prize this year and especially if you did, good luck next year."

### Eason Leads Team To Upset Over La Verne

#### By MIKE RUPP

#### Athlete of the Week

Rebekah Eason - Women's Diving

The Sophomore from Dallas, Texas led the Caltech Women to an upset of conference for La Verne and then proceeded to dominate against defending Conference champion Claremont Mudd-Scripps.

Eason's 199.35 in the 300 Meter and 206.80 in the 100 Meter both blew out the competition from La Verne, bringing in 18 points towards Caltech's total. Against a deep Claremont team that took the second through fifth spots, Eason posted a 209.50 to win the 300 Meter, then held on in the 100 Meter with a 268.45.

Eason finished 7th in conference last year as a Freshman and will continue to lead the aquatics program this Wednesday at home against Chapman.

#### Week in Review

#### Men's Basketball (0-14) Head Coach: Roy Dow

Though they took two conference losses this week, the Men's Basketball team showed some signs of improvement. The team scored a season-high 53 points on Wednesday at Cal Lutheran.

Junior Guard Chris Gutierrez erupted for a season-high 18 points; most by any Beaver this season. Then on Saturday at Claremont-Mudd-Scripps, Senior Guard Ken Ly broke out of his shooting funk, scoring 14 points off the bench including 3 of 6 from downtown.

Sophomore Guard Day Ivy

was the best player overall for the week, averaging 12.5 points, 2 rebounds and 1.5 steals. He continues to lead the team in rebounding and steals and is second in scoring. The team plays next this Wednesday night at home against La Verne.

#### Women's Basketball (0-14) Head Coach: Sandra Marbut

The Women's Basketball team struggled with two tough losses this week, but continued to show flashes of improvement. Sophomore Center Shelby Montague lead the team against Claremont with four points, seven rebounds and two steals.

The Beavers held Claremont to 48 points, their best defensive effort of the year. The team had more difficulty with Whittier College on Friday.

Senior Dagny Looper lead the team in scoring with a seasonhigh six points and four rebounds. For the fourth time in five games, Montague lead the team in rebounding with 7 boards. She's now averaging a team-high 6.3 rebounds, good for ninth in the conference. The team plays next Tuesday night at home against Occidental.

#### **Swimming / Diving** Head Coach: Clint Dodd

In a stunning upset, the Women's Swimming & Diving team defeated the Leopards from La Verne on Friday, by a score of 116-111. In addition to Rebekah Eason's performances, Senior Jacki Wilbur won the 50 Freestyle and 100 Butterfly and also anchored the winning 200 Medley Relay.

Sophomore Diver Ben Pelletier came up big for Caltech on both days, easily winning both the 300 meter and 100 meter competitions on both days. Senior Jim Rebesco turned in some excellent performances, coming out of the Claremont meet with wins in the 50 and 100 Freestyle and anchoring the 200 Medley Relay teams to wins on both days. The team competes next Wednesday evening at home against Chapman.

#### Baseball Head Coach: John D'Auria

The Men's Baseball team opened its season with a split in two exhibition games against Dodgertown West. Junior Isaac Gremmer lead the team to a

For Solving Competes Continued from Page 1, Column 3 Caltech tournament was only his cial record three times, finishing his last solve in 14.76 seconds.

Inventor of Technique

Just as incredible, all of his solves were done in under 20 seconds and he won first place by more than 10 seconds. "I was really nervous at first, but it turned out well," said Macky afterward.

Unfortunately, the Caltech tournament was not officially sanctioned, so Macky's records are not official. Still, he set a precedent for future competitions.

Unlike Macky, Petrus did not post such spectacular results. Still, his times were solidly below 30 seconds and he ultimately finished second, followed closely by

fourth. "It's fun that there are tournaments besides the World Championships," Petrus articu-lated everyone's sentiments.

The tournament was an unbelievable success, according to Tyson Mao, the organizer. Mithun Diwakar, the other judge, agreed wholeheartedly. Mao stated, "We are starting the Caltech Rubik's Cube Club. Further, we hope to get funding so we can hold a tournament every term."

The complete results of the tournament are available at <http://www.speedcubing.com/ events/caltech\_jan2004.html>.



Kenneth Brandon of UC Irvine.

Petrus is most famous for creating his own method of solving the cube. While many people use other methods, the Petrus Method remains very popular.

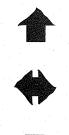
Although Petrus has been cubing for more than 20 years, the Several videos of the action can be found at <http://www.henage. net/dan/cube/index.htm>.

For more information on the Caltech Rubik's Cube Club, or to learn how to solve the cube, contact Tyson Mao at tmao@caltech. edu.

Athelete of the Week Rebekah Eason led the swimming team to a conference upset with two big wins in the 100 and 300 meter.

dominating 15-3 win in the first game. Gremmer was dominant at the mound, pitching a complete game giving up only 5 hits and no earned runs, while striking out 5. Gremmer also had 3 RBIs. The team lost the second game 6-0. They played their annual Alumni game this Saturday.

#### CALTECH CONVENTIONAL WISDOM WATCH



Dean: 'We will not give up': Howard Dean gives a rousing speech to supporters after a third place finish in the Iowa primary. Ending scream provides hours of fun via online remixes.

Superbowl stagnates productivity: The Patriots win a hard fought battle against the Panthers. Ashcroft conspiracy suspected.



BoC Race Ends with NO victory: With the no candidates competing in the BoC Chair election, NO received 348 out of 374 votes. The petition for a second race received 372 signatures.

