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THE CALIFORNIA TECH

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FRIDAY, APRIL 16, 1999

Dr. Garwin Lectures on Missile Defense

by tech staff

Is it feasible to stop a rain of nuclear terror before it strikes? Dr. Richard Garwin, at the Twelfth Laurisen Memorial Lecture, believes that simple deterrence may be more powerful than any anti-ballistic missile system the United States develops. However, with recent development of tension between the U.S. and countries overseas, the House and Senate have pushed ahead with the deployment of a National Missile Defense system.

On Wednesday night, Garwin lectured on the unique dimensions of the threat of Intercontinental Ballistic Missiles (ICBMs) and current efforts to fend against possible attack by these weapons. Garwin pointed out that in missile technology demonstrated by North Korea, Iran and Iraq, the U.S. searches for a way to combat increasing accuracy and advanced technology. Dr. Garwin scoffed at the need for armed defense, calling for continued preventative measures, but including not limited to:

1. positive-pressure buildings, to reduce death tolls from missiles by a factor of 1000.
2. keeping the ABM treaty intact to limit the proliferation of interceptor defense missiles, and
3. treating countries as friends as opposed to enemies.

In Garwin’s opinion, “Deterrence remains the primary defense against ICBMs.”

In addition to covering current actions regarding ballistic missile defense, Garwin gave an in-depth history of the evolution of missile defense systems, from the V-2 rockets in World War II to be deployed “Star Wars.” He outlined the limitations of anti-ballistic interceptors protecting one key location.

Prof. Kirschvink reveals secrets of Martian rocks

by Tim Raub

From Houston to Harvard and from nearby UCL to even nearer-by Kickoff lecture hall, Caltech geobiologist Joseph Kirschvink is captivating audiences and challenging their preconceptions with a remarkable line of reasoning that leads to what, on an intuitive level, seems incredible: that bacterial life existed on Mars 4.0 billion years ago.

When scientists at McMurdo Base in Antarctica discovered a small, potato-shaped black rock poking out of the ice-capped Allan Hills in early 1984, they knew at first glance it was a meteorite. The Hills, which are rebounding isostatically as the West Antarctic Ice Sheet recedes, are a relatively rich hunting ground for the geologically young continents. Scientists believe that the Allan Hills meteorite was “reborn,” joining an exclusive club of only 13 tiny rocks on our planet that once contained organic material which could have given rise to life. In 1996, David McKay and colleagues, including Kathy Thomas-Kerne at Florida and Hojirou Ten V.industry at Georgia Institute at the Johnson Space Center analyzed the abundance of the oxygen-17 isotope that was trapped in the true ALH meteorite to his own shock, the concentration was exactly what would be expected of a Martian meteorite and not like that of a terrestrial stone at all. A little detective work uncovered the paper-work mistake, and the ALH84001 meteorite was “reborn,” joining an exclusive club of only 13 tiny rocks on our planet that once contained organic material which could have given rise to life. Last August, the USA Today announced the idea of nanofossils “dead,” and Science magazine recently published a two-page spread entitled, “Requiem for Martic Life.” Indeed, of the five lines of persuasion used in the original McKay paper, four have been reduced to a status which cannot neither support nor disprove their initial hypothesis.

The fifth line of reasoning has only grown stronger, though — thanks in no small part to Caltech professor Joseph Kirschvink. Kirschvink is a geobiologist who specializes in paleomagnetism and major biotic events in the Earth’s geologic history, including the origin of life on Earth. Together with graduate student Alain Maiz, he obtained an small subsample of the Allan Hills meteorite. In a 1997 Science paper, Prof. Kirschvink reveals secrets of Martian rocks

Misleading extraterrestrial rocks reveal hints at bacterial life on Mars

In this issue

The usual stuff

Announcements

Dr. Garwin Lectures on Missile Defense

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MARS ROCK

CONTINUED FROM PAGE 1

In the two obtained a record of the magnetism of the meteorite that contained the carbonate globules had never exceeded 10000 gauss. Since the meteorite had been recently shocked — 4.0 billion years ago, when it was still on Mars. Since the publication of the large rock on the surface of the planet. If you look at the surface of the planet, the area is a bit more than half a billion years after the solar system had con-

elled, and if Mars possessed a magnetic field at that time (the Martian magnetic field could have been evolved with- without much difficulty at all. If the meteorite, then, was transported to Earth without appreciable heating in the atmosphere, the samples such as those proposed to exist in the Allans Hills meteorite could have survived the 15 mil-

The theory of biovivistic magnetism has roots in the Caltech history. Lowermann, for many years Caltech's resident paleontologist, discovered magnetite crystals in the Allans Hills meteorite. Recently, scientists have discovered several genera of bacteria that synthesize magnetite crystals and form them into chains that act like a long bar magnet inside the bacterial cell. Functionally, the chains help an individual bacterium navigate in the Earth's magnetic field and find food. The Earth has six criteria by which he claims that the magnetite crystals identified on the Allans Hills meteorite were themselves formed by bacterial analogues long ago on a planet not so far away.

For starters, the magnetite crystals, which form chains that grow up to 20 units long, exhibit extraordinary chemical purity. In the naturally-occurring mineral magnetite, scores of trace metals such as iron, nickel, copper, and titanium are incorporated into the chemical lattice, in ALH84001, however, there are generally fewer than a handful of "mistakes" per crystal. The crystal faces are also free from defects such as nickels and pores that regularly dot iron crystals. Membrane-controlled synthesis is one means of regulating chemical and physical crystal perfection. Kirshvink also notes that the magnetite crystals, which abound in the lower temperature range that surround the low-temperature carbonate, generally show one of these three different morphologies. One of these morphologies is clearly inorganic in nature. This is no surprise, since the crystals that exhibit this shape are neither chemically pure nor free from defects. The other two suites of crystals, though, are shaped in such a way that they do not form simple octahedrons, but do make inorganic magnetite. Instead, they have all the crystal faces that are expected in an octahedral configuration, but the six faces that surround a certain axis of the crys-

MILLESSES

CONTRIBUTORS Pick 1

sion of the parts of the magnetite may increase the magnetism, Kirshvink suggests that evolution existed even in the dawn of our solar system and selected for bacteria that navigated for food. The other two suites of crystals, though, are shaped in such a way that they do not form simple octahedrons, as do inorganic magnetite. Instead, they have all the crystal faces that are expected in an octahedral configuration, but the six faces that surround a certain axis of the crys-

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CORRECTION

The Letter to the Editor that ran in the 04-09-99 issue of The California Tech, entitled "Caltech Sinks into Decadence," had two authors, not one as printed. The co-authors of the letter were Arie Kenjale and Peter Gerdes.
It's Prefrosh time again: a time for prospective students to examine Caltech and determine if it's the school for them. Keeping with the spirit, this week's column is written for the Prefrosh. As most frequent readers of *Innerspace* know, my writing is often fairly cynical and occasionally even has a touch of sarcasm. This week, though, I hope to help all of the possibly confused Prefrosh, I promise to be sincere. Really, I promise!

For those of you still reading (and haven't yet skipped diddy-did to Dilbert), I will reward your patience to the best of my ability and try to give you some insights that are given to Caltech students by its student to sheep ratio. This might simply be because of the nature of the work (science often requires more time input to learn thoroughly than other subjects), or that Tschers demand more of themselves, or that the Institute itself provides us with more to do. Don't misunderstand — students here do not work all the time, but it is a significant amount of time. Whatever the reason for this, the facts remains, and you will have to decide for yourself if the commitment is worth it.

**Social Life:** Lots of people here complain about the social life. To be honest, compared to many other schools, Caltech does have a very low-impact social environment. We don't have wild parties every weekend, fraternities, a thousand clubs, or massive sporting events. If this is what you're looking for, then you won't find it at Caltech. There are, however, many positives that arise from not having the typical college social scene. When it comes to participating in activities, everyone has a chance if they want one. You can be active and hold positions of leadership in as many or as few organizations on campus as you want. At other schools, it's hard to be very involved, because there are often many other things going on at the same time. This applies to sports, student government, clubs, and research. If you want to be on the basketball team, for example, you probably can, even without much experience. Sure, you might not win, but you can play if you want to. Think I'd be writing this column for publication in the school newspaper at any other school? Instead of troops, we have Houses, which are by nature more inclusive. Some people criticize the House System for various drawbacks, but ultimately it's a very positive aspect of Caltech's social life. And while we don't have parties every weekend, people spend a lot of time on the few we do have. Prefrosh Week-end is a great time to find out what social life is like here, so take advantage of it. It might not be the most accurate impression, but it's probably the best one you can get.

**Research:** There are so many more opportunities for research at Caltech than at any other college. This is, primarily, a research institution, meaning all of the faculty are involved in scientific research. Most of them need help, and undergraduates are a great source of inexpensive assistance. This situation works wonderfully for both students and faculty — the students have the chance to participate in research that suit their interests and the faculty have enough staff for their projects. I started doing research in astronomy the second term of my freshman year, was paid well, and was using professional grade telescopes at Mt. Palomar by that summer (and I'm not even an astronomy major). Summer research is very popular and, thanks to SURF, not too difficult to find. Unfortunately, if you're interested in scientific research as an undergraduate, Caltech is the place to be.

The **Ratio:** The male-female ratio, that is. This is a constant source of difficulty in the Caltech undergraduate community. Why this may not be the most consequential part of your decision making process, it is an important aspect of life at Caltech. For some, it's mildly annoying or unnoticed, but for others it can be the defining element of their Caltech experience. One of my friends believes that "the ratio is the only thing wrong with social life at Caltech." I wouldn't take it that far. Unlike my other comments, there's not much good to say about the ratio. Maybe it's good for women at Caltech, and many of my female friends attest to that. True, it's easier for them to find boyfriends, but they also often lack having many other close friendships with women. The ratio perhaps the most obvious problem with Caltech's undergraduate life, and just like any other element of your decision, you will have to decide how important it is to you.

Before this column gets much longer, I'll stop going over specific details of the Caltech experience. I've given a few positive and negative aspects of life here, and they are by no means the extent of it; they are the few details that happened to cross my mind while writing. You can never learn all there is to know about a school by one visit or by reading one article about it, but remember to keep in mind everything you do learn this weekend and use it to make a well-informed decision. I also urge you to do the same with all the other schools that you may visit. The decision really does matter, and if you choose right, you might meet another Paul, a tour-de-force, Mersky is encouraged to do so! You probably won't regret it.

And there are no sheep here as far as I know. Sorry! Jason is a second-year undergraduate at Caltech, for all you Prefrosh out there. His column "Innerspace" is featured in the *Tech* every once in a while - stay tuned for further installments.

*The Outside World*

*by Erik Dill*

Kosovo - The NATO air campaign has gone on for 24 days. On Thursday, Serbian officials showed photos of several refugee groups allegedly hit in the bombing. NATO officials acknowledge that some refugee groups were targeted accidentally, while blaming other casualties on Serb forces.

Florida - Wildfires, fanned by high winds, have burned almost 5,000 acres. Several areas have been evacuated, and dozens of homes destroyed.

Central Asia - Last Sunday, India tested an intermediate range surface-to-surface ballistic missile. Pakistan followed with a similar test Thursday. Both missiles are capable of carrying nuclear weapons, which both India and Pakistan successfully tested last fall.

Bogota, Colombia - Up to 40 people, including several Red Cross, Civil Defense, and municipal rescue workers, were killed in a mud slide as they tried to rescue victims of a smaller slide. Colombia has been subjected to unusually heavy storms, which are being blamed on the La Nina phenomenon.

Angola - On Wednesday, the UN Security Council expressed concern over the deteriorating situation in Angola, blaming UNITA rebels. Food supplies are rapidly decreasing, resulting in extensive shortages, and a polio epidemic has begun around the capital city, Luanda.
Tennis gears up for SCIAC
Team has high hopes after crushing Whittier in conference match

BY GERALD PALMOSO

Last Friday, the Beavers won their second conference match when they demolished Whittier 7-0. Early in the battle-tested, the Beavers never took the foot of the gas pedal and had strong performances from all seven players.

In the doubles, the match counted to be after the Beavers won the doubles 2-1, but in almost all of the singles matches, a Caltech player was tearing his opponent apart. The top three of Mur Musick, Eric Serher and Jason Wong all won their first sets 6-0 in less than 25 minutes.

The rest of the match seemed to validate the fact that the Beavers have improved significantly since the beginning of the year, as each player continued the good play and focus.

However, the Beavers lost a close one last Saturday, when they lost to Occidental 4-3. But there was very little weeping over the outcome of that match, because of the extremely fine effort expended by the Beavers.

The match started with the winning of the doubles point, with wins from #2 Eric Serher/ Jason Wong and #3 Chris Lepley/Gerald Palmrose. Amazingly, #2 was faced with match point, but a high-risk, high velocity second serve from Jason Wong handcuffed the opponent and led the Beavers to win the match.

Next, the team put out its singles lineup, and for awhile it looked as though the match would be winning. Three players won their first sets, but only two, Lepley and Palmrose, went on to win their matches.

It came down to the last match to be finished, which was #1 singles. Representing Caltech was Matt Musick, who had beaten Whittier's #1 a day earlier 6-0, 6-2. Musick lost the first set 6-4, even though he was definitely the aggressor in the match. The second was very similar to the first, in that Musick repeatedly beat the odds by breaking his opponent's serve, but then could not consolidate the breaks by holding his own serve. The final score was 6-4, 6-4.

Finally, last Wednesday the Beavers lost a match again to non-conference rival Chapman 5-2. The two wins came from the bottom of the lineup, as Doug Baker won at #5 singles 6-4, 6-1, and Anthony Guerrera won at #6 6-0, 6-0. It was certainly a good sign for the tennis team to have two up and coming freshmen pick up solid victories.

Going into SCIACS, the Beavers find themselves in a rough spot, being pitted against Pomona College. However, if the Beaver men can play up to their potential, they may advance to play Harvey Mudd in the second round. If not, they will probably play La Verne again in the consolation bracket and then perhaps Cal Lutheran and hope for a 5th place finish. And that ain't bad for a team that will return 5 of its 6 top players next year.

Athletic Director enjoys interview with the Tech, but moans over insufficient time for smoothie consumption

BY TIM RAUB

In his first day as Athletic Director, Tim Downes found himself confronted by an executive decision calling for both mental discipline and physical exertion. From Downes' desk in his north­east facing office, he had captivating views of the towering San Gabriels, dusted by their first real snow of the season—like many Techers, he was fascinated by the beauty of the mountains. With perhaps a wistful glance, Tim Downes got up and rearranged his furniture so that his desk faced the door to the southwest. Recently, Downes took the time to meet with the California Tech and talk about his vision for Caltech's athletic future.

Tech: What led you to first consider Caltech?

TD: Its academic reputation. The quality of education was similar to places where I had been before—for example, Johns Hopkins. I think the reasons why I looked for a Division III school were very philosophical. The way we do things here, the idea of a student-athlete, are things I really believe in. Everything I believe about teaching physical education as part of the big picture of a student's development fits into the mission of the institute.

Tech: The atmosphere here surrounding athletics must be different than at many larger schools, may be different from your own experience—especially in our intercollegiate competitions, we sometimes don't have much success. Is this an issue you deal with in your decision?

TD: I think there's a difference between success and winning. We should do everything we can to give our coaches and students a chance to be successful, but this is Division III and so we're not doing this to win national championships. Here, athletics is a complement to the educational process. Also, I really see three components to the athletic department here at Caltech: intercollegiate athletics, physical education, and recreational activities. I think each of these should complement each other. We want to give motivated students an outlet, help them become well-rounded.

Tech: Is there anything you would say to prefrosh who are considering Caltech? Some people might be looking to use intercollegiate athletics as a competitive outlet, while others might never have played a sport in high school but might want to join a team here at Caltech.

TD: I think there's something for everyone depending on what that person's abilities and interests are, and that's something that not every school can say. You can find a different option for your own level of competitiveness. The education and the opportunities here at Caltech are as unique as they are varied.

Tech: Do you have a "vision" for Caltech? That is, can you say, "Caltech is really great with the opportunities and situation it has now, but it could be even better, and in three years...?"

TD: My answer today is different than it will be two months from now, or two months after that. I suppose I do have sort of a philosophy, and that's what we need to value athletics. We need to recognize the accomplishments of our student-athletes, because that takes a lot of dedication and sacrifice. We need to value what Braun Gym and the athletic department here means to the Caltech community, and what our staff does. As far as a "plan," right now I just want to meet with people in the department and students and staff across the campus, and get a sense from people of where we can go. Then we want to push forward in the direction within the stated mission of Caltech.

Tech: Are you going to try to meet with prefrosh?

TD: From 8 until 9 there will be a special program for parents of prefroshmen in the Beckman Institute Auditorium. There will be tables there, and I'll be manning one of them. Then from 1 until 3pm the Athletic Department is having an open house here at Braun Gym. I'd like to talk to prospective students and current students as well. I really liked the open reception last Friday.

Tech: Yeah, the fruit smoothies were good!

TD: Actually, I didn't get any!


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<td>Men's Golf</td>
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Track and Field Coach W.L. Stanton, ca. 1927:

"Training rules for the week (of the conference meet): a) 9 hours sleep, if possible and b) Diet: for breakfast, no warm biscuits, fresh bread, nor hotcakes. For lunch (light), no coffee, pie, cake, or rich pastries. Soup, meat, salad, vegetables, milk if desired, toast if possible. Light dessert. NO ICE CREAM.

Track and Field Coach Jasper Simon, ca. 1999:

"And especially no marshmallows!"
Baseball places game and sportsmanship above the win

Glance back through the baseball season reveals spirit of camaraderie and jolliness unmatched

BY DAVE BERNAT

Almost every child has picked up a baseball glove and at sometime during their childhood life. Maybe they couldn't hit the ball, or maybe they threw like a girl," but they played and enjoyed the game. CalTech students are no different. We do it because it is fun, relaxing, and a great break from the stress of the school year.

The spring season starts in early January, and a few weeks later, we play our first game. Traditionally, this game is against the L.A. Dodgers Fan Camp team: Dodgertown. This doubleheader is always a success down the line and Outfielders Matt Sullivan (Jr) and Dax Herrera (Fr) running down the long fly balls, far over their heads. Integral to the infield are secondbasemen Dave Hiller (Jr) and Miles Shuman (Sr) along with firstbaseman Brian Stalder and of beautiful Southern California weather in the middle of February.

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## Try some exciting Friday events to discover inner peace

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<thead>
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<th>Time</th>
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<tr>
<td>6 a.m. - 10 p.m.</td>
<td>Athletic Facilities Open</td>
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<tr>
<td>8 — 9 a.m.</td>
<td>Breakfast with Professors</td>
</tr>
<tr>
<td>9 — 10 a.m.</td>
<td>General Session: Academics at Caltech</td>
</tr>
<tr>
<td>10 a.m. - 5 p.m.</td>
<td>Attend Classes</td>
</tr>
<tr>
<td>11:30 a.m. — 1 p.m.</td>
<td>Lunch: Option Sessions - learn what you are!</td>
</tr>
<tr>
<td>1 — 2 p.m.</td>
<td>Athletics Open House</td>
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<tr>
<td>2:30 — 4 p.m.</td>
<td>Club Fair</td>
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<tr>
<td>4 — 7 p.m.</td>
<td>Dinner in the Hovses</td>
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<tr>
<td>5:30 — 6:15</td>
<td>Performing Arts at Caltech</td>
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<tr>
<td>7 — 9 p.m.</td>
<td>Marvelous Magic Show</td>
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<tr>
<td>7 p.m.</td>
<td>ASCIT Movie, Contact</td>
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<tr>
<td>7:30 and 10 p.m.</td>
<td>Casino Night</td>
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<tr>
<td>9 p.m.</td>
<td>Huge Screen Video Games, Four Square and Fire</td>
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## Experience the sublime perfection of Saturday activities

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30 — 9:30 a.m.</td>
<td>Breakfast</td>
</tr>
<tr>
<td>7:45 a.m. — 12 noon</td>
<td>Jet Propulsion Lab Tour</td>
</tr>
<tr>
<td>9 a.m. — 2 p.m.</td>
<td>Financial Aid Office Opens</td>
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<tr>
<td>10 a.m. — 12 noon</td>
<td>Campus Lab Tours</td>
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<tr>
<td>11 a.m. — 4 p.m.</td>
<td>Bookstore Open</td>
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<tr>
<td>12 noon — 1 p.m.</td>
<td>Picnic Lunch</td>
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<tr>
<td>12 noon — sundown</td>
<td>Tie-Dye and Graffiti Extravaganza</td>
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<tr>
<td>1 — 2 p.m.</td>
<td>“After Caltech: Work? Grad School?”</td>
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<tr>
<td>2 — 3 p.m.</td>
<td>Premed Program at Caltech</td>
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<tr>
<td>2 p.m.</td>
<td>Research at Caltech</td>
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<tr>
<td>3 — 4 p.m.</td>
<td>Slam Dunk Contest</td>
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<tr>
<td>3 — 5 p.m.</td>
<td>Women in Science and at Caltech</td>
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<tr>
<td>5:30 — 7 p.m.</td>
<td>Diversity at Caltech - Open House</td>
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<tr>
<td>8 p.m.</td>
<td>All-Campus BBQ</td>
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<tr>
<td>9 p.m.</td>
<td>Ruddock Greens Miniature Golf</td>
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<tr>
<td>11 p.m.</td>
<td>Campus-Wide Capture the Flag</td>
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<tr>
<td>12 midnight</td>
<td>Post Capture the Flag Barbeque</td>
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<td></td>
<td>Blacker Hovse Midnight Ultimate</td>
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</tbody>
</table>
Prefrosh React to the Caltech Experience

With essays finished, resumés completed, and finally (cheerfully) acceptance letters received, we assumed we were home free. All that remained was the simple task of choosing a college. Or so we thought.

Luckily, as slacking second semester secondary school seniors, we have the time to study our options in the all-time to study our nior s, we have the

So, here we are at semester second ary school semesters, important choices were the simple task of choosing was the simple task of choosing a college. Everyone I met admitted how hard it’d be to survive and it really may not be a good idea to be here. I’m still as undecided as I was at the first moment of arrival, but I’m impressed to find this unique jewel in such close proximity to my ordinary world.

We: After a long series of annoying cancellations and delays (don’t ever fly Black Air!), I finally reached Page House. An hour spent wandering halls and talking with old friends preceded my first meal in Pasadena. Although I had been prepped in the dinner etiquette, I began the meal with hesitation and confusion. Certainly, though, I cannot complain about the rapidity and quality of the food. I never before recognized the power of raising my hand. Seated at the head table between the house president and the aftermeal, I noticed that outrageously large ice cream cones and table-pounding punctuated the extremely "efficient" supper. The meal culminated in three-cheese bread, baked potatoes, and various other leftover food items at the last speaker - though I still have no idea exactly why I aimed a dinner roll at his head.

For all of us, these "interesting" experiences foreshadow an exciting weekend - and perhaps four years here at Caltech. Thanks to everyone who planned and perspired to make our Prefrosh Weekend possible.

The Tech would like to thank the Prefrosh contributing to this article:

Jon Foster: Ellison Bay, Wisconsin
Denise Kim: Madison, Wisconsin
Nancy Li: Diamond Bar, California
Wei Ho: New Berlin, Wisconsin

A Techer reacts to the Prefrosh

"The Prefrosh are coming! The Prefrosh are coming!"

Techers, take heed: an invasion has grabbed a hold of our otherwise calm campus. Caltech scientists have since diagnosed this as the annual infection of Prefrosh Ninetyneinea. They are quite a strange breed, noted as much for their ability to comprehend third term AMa 95 homework as for their inability (in certain select cases) to realize that there is more to life than watching the Star Wars trailer and playing X-Wings. Their egos, which on average encompass the nearest 75 cubic meters to their person, are surprisingly well intact and resilient. Amazingly enough, a few have been captured whose egos can barely fit into the typical south house single; these will hopefully be on their way to the Caltech of the East come September for further study. Should one approach you and speak in a calm low voice, be sure to answer whatever they ask; they are considered exceedingly volatile if provoked. Techers considers them more valuable after they have changed into Freshman Dorkus, but does recognize that to get the advanced form, the campus must not only endure but triumph over this preliminary infection.

Most of the specimens arrived on campus today, and the effect has been devastating. If the course of the infection is extrapolated from previous years' data, this infection will cause a four-day case of mass lethargy to settle over the usually stupendous and hard-working campus. Already, poor overworked undergrads, blinded by the infection, have been observed to abandon caution to the wind and their physics sets to the fire place, and instead of preparing for their third term midterms, proceed to "show the prefrosh around." Horrors!

Prefrosh Ninetyneinea appear to be superior to previous infections in many respects. The list of their collective accomplishments is astounding, and they seem to possess an above-average amount of social "chic." Of course, these are very preliminary findings, and are subject to revision. They have already started interacting with each other, prompting some Tech undergrads to exclaim: "Dear God! Was I ever THAT much of a geek?" The answer is yes.

In a rash and unwise manner, some Tech undergrads have already started speculating on specific things for possible "notion and dating" once the aforementioned specimens arrive back on campus in September as Freshman Dorkus. (add something that’s not so posturing)

Be certain to report to the Prefrosh Committee (motto: "it’s budgeon our housemates into agreeing to a four-day period of servitude in order to get a lunch at the Ate and the undying gratitude of the Admissions Office") for neural cleansing. The Prefrosh Committee for this year is composed of Cheryl Forest (Blacker), Kim Harle (Ricketts), Liz Kelley (Flaming), Iljie Kim (Danley), Ellie Park (Lloyd), Erika Swanson (Page), and Andrew Tretten (Ruddock).

lit room containing the wisdom of the ages. I was warned not to touch, for true understanding of the lab equipment is not a knowledge to be easily gained, nor are the uninformed permitted to partake of their power. As we left, I knew that one day, if I persisted, I could re-enter this
**Present**: BoD (minus Jeremiah and Danny), Blacken April 1, Dabney, May 3, 10, 17, Angela Shum

**Meeting called to order at 19:04.**

**Dealing with Guests**

Brian requests money for a Caribbean band at an Inter-International Week event (through the Caltech Y). Sang-Ah and Ryan request funding for Korean Student Association (KSA).

Angela requests money for Frosh Prom (a pre-bi-weekend event planned by the junior class officers) on Saturday, April 24.

**General**

Baldeep proposes a change in meeting format so that projects are discussed and reported upon instead of having general business and officer reports. Bascially, it is way to limit the number of opportunities for the secretary to insert random comments of interest. So Baldeep says: so shall it be.

**Project Reports**

Winnett - Caltech Dining Services usually handles the reservations of the second floor of Winnett for various events. Jeremiah “volunteers” to look into the process of reservation and why the ballroom dance contract is dissatisfied with the procedure. Baldeep will forward some relevant e-mails to him.

ASCIIT movies - Baldeep talked to Tim Crosby, the ASCIT movies chair about the possibility of switching to showing ASCIT movies every other week instead of every week. He decided reluctant to do so since the movies have already been reserved for this term. Baldeep will look into whether financial commitments have already resulted for these movies. Baldeep and Alan will also look into the legality of building an ASCIT video library.

**Summer Project Report**

BoD votes to approve $4000 for someone to look into and organize the archives, as well as write up a report on the history of student government at Caltech.

**Faculty Board Meeting Report**

The Faculty Board met this afternoon. Alice Huang gave a report on the status of women at Caltech including faculty, administration, grad students and undergrads. The science communications requirement was also discussed. The current options being discussed for fulfilling this requirement are through a specific course within each option, submission of a paper to an electronic journal, and the publishing of a report to an actual journal.

Big T - Jaideep claims significant progress with this project this week.

**Student Advisory System**

Melvin and Jaideep claim major progress with this project in the coming week as well. All the movies have already been reserved and the ASCIT Y seems to have all bases covered for this ASCIT party.

**Prefrosh Weekend Donuts**

Garrett will okay this large order of ASCIT donuts with admissions and the Prefrosh Committee.

**ASCIT Formal**

Ritz Carlton Marina Del Rey and the Ritz Carlton Huntington are the hotels still in consideration.

**ASCIT Budget**

Derick published the results from the ASCIT budget on the web and contacted the club representatives.

**Housing Cards**

Jaideep will publish an article in the Tech on the details of the roomspicks with respect to the housing cards. Kim West says that the housing cards are in the final review stage and will be coming out soon.

Meeting closes at 19:45.

BoD approves:

- $550 for the Caltech Y International Week Caribbean band,
- $300 for Mudeo,
- $100 for the KSA.

Meeting adjourned at 19:53.

Respectfully submitted,

Hanna Kim

ASCIIT Secretary

---

**Questionnaire about the budget? email ascit@cco.caltech.edu.**

**Regular Meeting 4/16**

- **Present**: IHC - Katie + Amy Duell (as Ruddock Reps) + Financial Aid Committee (Jan Swett + Nita Losonoporku (via email)) + Lisa Biswal + Jason McManus + Baldeep “ASCIT just doesn’t do it for me anymore” Sadhal.

**Meeting called to order at 12:25pm.**

**Third Term Meeting Times**

Meetings are on Thursdays @ Noon rotating around the houses April 6 (early because of conflicts) Fleming April 14 Lloyd April 22 Page April 29 Ricketts May 6 Ruddock May 13 Blacker May 20 Dabney May 27 DISCO

Blacker will play ultimate with Page this Sunday (4/18) at 5pm. Disco dates for this term: 5, 19, 26, May 3, 10, 17, May 24 (maybe)

**Financial Aid Committee**

Ian and Nita give insight to IHC about duties of Financial Aid Committee student members. Look for a summary of all student committee information in the Tech later this month.

**Frosh Camp Update**

Moving the location of Frosh Camp from the beach to the mountains has resulted in fewer accommodations, a working dishwasher, and thoroughly cooked chicken. Therefore the number of upperclassmen who will attend Camp will be reduced. Jobs such as Dean’s Helpers, Audio/Visual, Photographer, etc. will be incorporated into the UCCs (president + 4 others from each house). The house presidents will coordinate the Ropes Course rather than have a Frosh group. The UCC selection should be done by the end of this month.

**Sexual Harassment Committee**

The committee decided that the institute’s sexual harassment policy to include all types of harassment and has also created a course of action in the event of a complaint. Issues addressed by the committee included identifying people on campus to whom students should report problems and how to deal with false accusations. As a member of the committee, Lisa suggested that the BOC and IHC members receive training to allow students to report problems to fellow undergraduates.

**Lottery Cards**

Staying tuned your mailbox for housing lottery details.

**Prefrosh Approval**

More house events were okayed by the IHC as well as this week’s edition of the BFD.

Next week we will meet in Lloyd and talk to the student members of the Academic Policies and Curriculum and Educational Outreach Committees.

Meeting adjourned at 1:02pm.

Respectfully submitted,

Catalyn Gifford

IHC Secretary
Go (A.)
Rated R: for glaring buttocks, laps in places you wouldn’t want to show your mum, and an “accurate” picture of how fun it really IS to take XTC.

While standing in the ticket line, I overheard many middle-aged movie-goers asking, “What’s Go?” Knowing only that its cast featured primarily teen-angst-sickeneded mature adults.

But you don’t need to be dressed in Bebe and Skechers to understand the desperation to pay the rent, or buy drain-string cargo pants to enjoy a romp and a gamble in Las Vegas. And given the pervasive influence of free-will during the ‘60s and ‘70s, envisioning an eco­high druggy communicating telepathically with a kitty shouldn’t be a stretch. The me­nace-a­roon, though, might raise a few eyebrows.

Welcome to the world of Doug Liman’s “Go”, a movie which is a virtual green light to platter some of the darker bas­tions of our MTV culture on screen, through the eyes of some border­line teenager-adult cases, full of confidence but out of their league. Temporarily, “Go” maintains a forward-re­wind interplay of one day in the lives of a dozen young, renegade characters, stringing 3 vignettes from their distinct perspectives of a drug deal turned joy ride. The juxtaposition of their be­girling day jobs with their nocturnal techno-injected rever­ies screams “I do what I have to in order to pay the rent, and chances are, she still won’t make it.” And on Christmas Eve, being a vagrant would most assuredly be an anti-cruise. But introduce a proposition, in the shape of a Brit who wouldn’t mind paying $20 for a blow job. No, Ronna’s not a cheap slut, but after a long shift already, she takes another one. This minor swap gives Simon a much needed flog in Las Vegas with a mingle of gangsta posers who are absol­utely hilarious on and off the road, but Simon’s persona non grata behind the checkout counter leaves a pair of soap opera stars benefit of their latest instalment of XTC. Simon himself is not the big drug dealer, just a wash-out lower rung in a very sophisticated hierarchy of substance pushers. With little previous experience, presum­ably, replacement Ronna pushes a faux pass by traversing the inter­mediate guru and appearing on the doorstep of a scary raver punk big pin, for the sake of pushing profit with the leather­clad pair (Scott Wolf, Jay Mohr). But strapped for cash, she trades her word of a $90 expectation for a few hours of Clair (Katie Holmes), playing the role of a collateral and innocently mis­guided, Ronna groupie.

Even as Ronna confronts her customers later that night, there is a strange air. Cinemati­cally, not everything is hunky dory, especially the bully-eyed, balding gentleman in the comp­any of the two soap stars.

Ronna shrewdly surmises a sting, just one conflict so far, and her only out is “Flush.” This cre­ates yet another problematic sce­nario—Clar the collateral is trapped playing Breakfast Club scenes with Raver scary druggy­ guy, and Ronna has neither dug nor Hugh. Intelligence, part one: Ronna escapes the trap; part two: Ronna rescues Claire; part three: what to do with hal­lucinating Manny? Nothing. Smart: his ecstasy highs become a nice set up for the re-introduc­tion of the Macarena and the mis­education of how not to dance with a banana.

Ronna is the antithesis of almost all teeny hopper movie heroines out there nowadays. Chicy dressed, though not poster­chilling Gucci, she also provides the persuasive and tough image of confidence, not the “as if”-Clueless facade of respective blondes and brunettes in other flicks. She is aware of the desires of airheads of her generation, manifesting most partly in the music and press act of downing cold med­icine, in the likeness of XTC. Idiots’ pretentiousness turn into Ronna’s mini-fortune.

As the check­out counter trios assemble at the techno gala,
**DILBERT® by Scott Adams**

INTRODUCING THE NEW BONUS PLAN.

YES!!! I'M ALREADY WORKING AT PEAK PERFORMANCE. SO THAT BONUS IS AS GOOD AS MINE!

ASK, MR. REALITY WANTED TO VISIT YOU, BUT HIS CAR WON'T START. I'M PHIL."

ASK, MR. REALITY WANTED TO VISIT YOU, BUT HIS CAR WON'T START. I'M PHIL.

IT'S LIKE MY CUSTARD, BUT WITH MUCH BETTER LUMBAR SUPPORT. FRENCH FRY?

ON ONE HAND, IT STINKS...

THE COMPLAINTS ARE ALREADY COMING IN...

ASK, LITE IS THIS DUMPSITE.

WHAT DO YOU DO IF YOU'RE LATE?

REPAY YOU?

WE HAVE A REPORT THAT YOU THREATENED TO KILL A COMPUTER MANUFACTURER.

THE COMPUTER LOCKS UP FIVE TIMES A DAY. I'M GOING TO DRIVE OVER TO YOUR HOUSE AND KICK YOUR WHITE, KIMLY.

PHIL, YOU HAVE TAUGHT ME SO MUCH ABOUT LIFE. HOW CAN I REPAY YOU?

WE HAVE A REPORT THAT YOU THREATENED TO KILL A COMPUTER MANUFACTURER.

IT FREEZES UP FIVE TIMES A DAY. I HAVE TO UNPLUG IT TO TURN IT OFF.

OKAY, WE'RE ON THE BENCH. WHEN'S IT GOING DOWN?

IS TUESDAY GOOD?

HELLO, MAY I SPEAK TO THE WOMAN WHO DESIGNED MY COMPUTER?

WE HAVE A REPORT THAT YOU THREATENED TO KILL A COMPUTER MANUFACTURER.

IT FREEZES UP FIVE TIMES A DAY. I HAVE TO UNPLUG IT TO TURN IT OFF.

OKAY, WE'RE ON THE BENCH. WHEN'S IT GOING DOWN?

IS TUESDAY GOOD?

**FoxTrot by Bill Amend**

FOX, YEAH... DON'Tften THINK I'M THE ONLY ONE IN THE PARKING LOT WHERE YOUR BALLS TEND TO LAND.

LET'S SEE... I COULD PULL NUMBER 8, BUT I HAD THAT LAST YEAR AND I DON'T PLAY VERY WELL.

I COULD DO WITH LUCKY NUMBER 7, THEN IF I'LL THINK I'M IN A THOUGHT I NEED LUCK.

I COULD GO WITH 1, BUT THAT'S A LOUSY HOLE... 3, BUT THAT'S A GREAT HOLE... 5, BUT THAT'S A GOOD ONE.

FOX, YOU DIDN'T THINK I'M THE ONLY ONE IN THE PARKING LOT WHERE YOUR BALLS TEND TO LAND.

I WANT TO MAKE IT IN THE SAME PLACE WHERE YOU WOULDN'T BE LUCKY TO WIT.

FOX, AS YOU RECALL, LAST YEAR I PULLED YOU TO THE MILLIAN, THEN PULLED YOU TO WHERE YOUR BALL TEND TO LAND.

FOR, AS YOU RECALL, LAST YEAR I PULLED YOU TO THE MILLIAN, THEN PULLED YOU TO WHERE YOUR BALL TEND TO LAND.

I STARTED YOU AT SECOND BASE, THEN MADE YOU TRY TO LEFT FIELD, THEN CENTER, THEN RIGHT. THEN BACK TO LEFT FIELD, THEN BACK TO CENTER, THEN BACK TO RIGHT.

FOR, AS YOU RECALL, LAST YEAR I PULLED YOU TO THE MILLIAN, THEN PULLED YOU TO WHERE YOUR BALL TEND TO LAND.

I CAN'T BELIEVE THAT I'M IN THE CENTER FIELD...

I COULD NOT BELIEVE THAT I'M IN THE CENTER FIELD...

WHY WAS I PLAYING WITH THE LEGS OF A GOAT?

WE'LL TRY TO PLAY WITH THE LEGS OF A GOAT...

FOUR, AS YOU RECALL, LAST YEAR I PULLED YOU TO THE MILLIAN, THEN PULLED YOU TO WHERE YOUR BALL TEND TO LAND.

I WANT TO MAKE IT IN THE SAME PLACE WHERE YOU WOULDN'T BE LUCKY TO WIT.

FOR, AS YOU RECALL, LAST YEAR I PULLED YOU TO THE MILLIAN, THEN PULLED YOU TO WHERE YOUR BALL TEND TO LAND.

I WANT TO MAKE IT IN THE SAME PLACE WHERE YOU WOULDN'T BE LUCKY TO WIT.

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Sat-Sun after (13:00) 3-10

**The California Tech**

Intelligent, Talented, Giving Women, 21 to 32 years of age, sought as anonymous

EGG DONORS
Great Need for Asian, Irish, or Tall Donors
Call Rosemary at (818) 242-9933
Generous Compensation
The Ticket Stub ••• Go ••• continued from p. 9

1999-2000 UPPER CLASS MERIT AWARDS

Each year, the Faculty Committee on Scholarships and Financial Aid grants a number of Upper Class Merit Awards to the most academically talented of the Institute's Sophomores, Juniors, and occasionally, Freshmen. Upper Class Merit Awards are based on outstanding scholastic achievement as demonstrated by exceptional performance in formal classes and/or independent research and not a financial need. Last year, the Committee recommended a total of 53 Upper Class Merit Awards. Awards ranged from $6,250 to full tuition, $18,950. The number and caliber of the applicants determine the level of awards in any year.

Applications are available in the Financial Aid Office at 515 S. Wilson. THE DEADLINE FOR SUBMITTING COMPLETED APPLICATIONS TO THE FINANCIAL AID OFFICE IS 5:00 PM ON APRIL 23, 1999.

Attention all undergraduate financial aid recipients

The last date to request any change to your 1998-1999 Financial Aid Award is Friday, April 30, 1999. Requests for 1998-99 changes made after April 30 will not be considered. Please contact the Financial Aid Office at ext. 6280 if you have any questions.

The California Tech

April 16, 1999

11
**The California Tech**

Announcements

"**The Caltech Ballroom Dance Class is providing free lessons for both beginning Merengue (7:30 to 8:30 pm) and Salsa (9:00 to 10:00 pm) in Whitmore Lounge. Both series started on Monday, April 12 and will run for seven consecutive Mondays. Each lesson starts with a review and no partner is needed.**"

**Go to www.JobMonkey.com for free information on many thousands of summer work opportunities around the world.**

**Information and applications for 1999 Summer Work-Study are available in the Financial Aid Office. If you are registered, please make sure to apply before April 30.**

**The Caltech Ballroom Dance Class is providing free lessons for both beginning Merengue (7:30 to 8:30 pm) and Salsa (9:00 to 10:00 pm) in Whitmore Lounge. Both series started on Monday, April 12 and will run for seven consecutive Mondays. Each lesson starts with a review and no partner is needed.**

**At 3:00 pm on Sunday, April 18, admission is free. For more information call 1-888-2CALTECH or 626-395-4652.**

**There is a Survivors of Incest Anonymous (SIA) meeting at 10:30 am, Saturday at La Encinas Hospital for Women and Children. This meeting is for survivors of sexual abuse. Remember: You are not alone.**

**If you are registered, please make sure to apply before April 30.**

**Come watch "The Life and Times of Albert Einstein,‖ a glimpse into the life of Albert Einstein as seen through the eyes of his secretary/watchdog, his chauffeur, and his dog. The annual Stern Center convention, featuring over 50 exhibits and spectacular special attractions, will unite fans from around the world. General admission tickets are available in advance through Center Box Office, Ticketmaster (213-480-3232), or Creation Entertainment at www.creationent.com. Advance price tickets are $21 for Fri- day and $31 for Saturday and for the doortex, call 1-888-2CALTECH for more information.**

**Join Caltech SEEDS for the Lyrid meteor shower this Sunday at 3:00 pm on campus.**

**Have a question to ask? Contact the Financial Aid Office at ext. 6280 if you have any questions.**

If you have the time we have the need. Goon Show-handicapped Southern Cali­fornia is a non-sectarian, not-for-profit organization whose mission is to en­hance the quality of life for people with disabilities and other vocational disadvantages by helping them to be productive and productive members through education, training, and job-op­portunities. Goodwill helps more than 100 programs, and they are trust­worthy. We want to help you. Our work has been serving volunteers and children of La Canada and La Vernia.**

**The Distinguished Speaker Series of Southern California presents Margaret Thatcher in the Pasadena Civic Auditorium on Monday, April 19 at 8:00 pm in the Marcus Street. This is the final public appearance, she will share her ideas and experiences of world politics today and the challenges facing us in the 21st century. Tickets may be purchased at the Pasadena Civic Auditorium at 626-449-7760 or Ticketmaster (213-480-3232). For subscription information call 800-588-9301 or www.speakers.com.**

**The California Tech**

Mints

**Fellowships and Scholarships**

**The William and Flora Hewlett Foundation Scholarships and fellowships are available in the 1999-2000 academic year. Applicants must be U.S. citizens, graduating seniors, and demonstrate financial need. Crite­ria other than strictly academic ability, academic performance, and finan­cial need are considered in the selection process. To apply an applicant must send a self-addressed, stamped envelope to: The William and Flora Hewlett Foundation, 1240 E. California Blvd., Pasadena, CA 91101. For information call 800-588-9301 or www.speakers.com.**

**The John Gyles Education Fund offers a scholarship award to students for free tuition for the 1999-2000 academic year. Applicants must be Canadian or U.S. citizens, have a 2.7 or higher GPA, and demonstrate financial need. Criteria other than strictly academic ability, academic performance, and finan­cial need are considered in the selection process. To apply an applicant must send a self-addressed, stamped envelope to: The John Gyles Education Fund, Attention: The Secretary, P.O. Box 114, Kensington, CA 90041. For more information call 800-463-4066.**

**The California Tech**

**The Vikaloo Chamber Ensemble will be in concert and in concert at 8:00 pm on Sunday, April 18. Admission is free. For more information call 1-888-2CALTECH or 626-395-4652.**

**The annual FOCAL (friends of Caltech) Book Sale is on Saturday, April 24 from 8:30 am until 1:30 pm in Dabney Hall Lounge and Gardens. The book sale is open to the public; everyone is welcome. Come and see what treasures there are to be discovered!**

**For information on the listed fellowships, assistantships for both masters and Ph.D. students are available from the Department of Computer Science. Applications are available at the Financial Aid Office.**

**For information call 800-588-9301 or www.speakers.com.**

**The Student Union of Southern California Jazz Programs offers summer employment opportunities for the ten-week period from Friday, June 28 to July 30.**

**Catholic Big Brothers, Inc. needs YOU to lend a child a helping hand in a non-school-hours program where children of working families may be helped. Volunteer mentors work together to improve reading, writing, and arithmetic skills. Locations are scheduled at the Northeast Pasadena Mentoring Center, Villa Parke Community Center, 363 East Villa, South Pasadena Community Center. For more information call 818-853-4151.**

**The University of Southern California Youth Sports Programs offers summer employment opportunities for the six-week period from Friday, June 28 to July 30.**

**Galaxy tickets will be offered by UCLA at 5:30 pm on Wednesday, April 21.**

**To submit an event for the Mint, contact www.caltech.edu or call 213-626-5012.**

**The last date to request any change to your 1999-98 Financial Aid Award is Friday, April 30, 1999. Requests for 1998-99 changes made after March 30 will not be considered. Please contact the Financial Aid Office at ext. 6280 if you have any questions.**

**Have a question to ask? Contact the Financial Aid Office at ext. 6280 if you have any questions.**

**Announcements**

**The Endel of Los Angeles Scholar­ ship Committee offers scholarship awards of $2,000 to undergraduates at­tending Los Angeles County institu­tions. Scholarships are awarded for 3 years or when the student graduates, whichever comes first. Applicants must be a U.S. Citizen, be a Sophomore or above, have a 3.25 or higher GPA, carry a minimum of 36 units per term, live and attend a school in L.A. County, and be a registered voter in L.A. County. To apply, applicants must submit an appli­cation form, a personal statement and a Parent Financial Statement. Appli­cants are available in the Financial Aid Office. Entries must be submitted by April 30, 1999.**

**Caltech SEEDS will be holding its eighth tea­circuit construction meeting on Saturday, April 18, at 2:00 pm in the SEEDS lab (001 Thomas). No prior expe­rience is necessary. For detailed con­struction plans follow the Construc­tion Instructions link from http://www.­cco.caltech.edu/tecd/telescopes.html. For other information contact Emily Hoffman at ehoff@ caltech.edu or Leon Torres at leont@caltech.edu.**

**A Fluid Mechanics Seminar entitled "The Simulation of Gravitational-Wave Sources for LIGO" will be given by Kip Thorne, Richard P Feynman Professor of Theoretical Physics at Caltech at 1:00 pm on Fri­day, April 16 in room 306 Firestone. Refreshments will be served.**

**The next lecture in the Chemistry 0.1 Seminar Series will be held on Fri­day, April 16 at 4:00 pm in Baxter Lecture Hall. John Richards, Professor of Organic Chemistry at Caltech, will dis­cuss "Chemistry, Catalysis, and Life." This is the fourth in the 0.1 seminar series designed to introduce innovative research to a cross-section of the campus community. All lectures will be directed at a non-specialist scientific audience and no prior knowledge of chemistry will be necessary to understand them. A list of all Chem 0.1 seminars is available online at http://www­.cco.caltech.edu/~koenig/CCHE_seminars.html.**

**The Ebell of Los Angeles Scholar­ship Committee offers scholarship awards of $2,000 to undergraduates at­tending Los Angeles County institu­tions. Scholarships are awarded for 3 years or when the student graduates, whichever comes first. Applicants must be a U.S. Citizen, be a Sophomore or above, have a 3.25 or higher GPA, carry a minimum of 36 units per term, live and attend a school in L.A. County, and be a registered voter in L.A. County. To apply, applicants must submit an appli­cation form, a personal statement and a Parent Financial Statement. Appli­cants are available in the Financial Aid Office. Entries must be submitted by April 30, 1999.**

**For information on the listed fellowships, assistantships, and internships, contact the Office of Financial Aid. To make an appointment, call 213-626-5012. For more information, please email student_finance@caltech.edu.**

**By agreement, the editors reserve the right to edit and abridge all material. Solicitations will be referred to the business manager.**