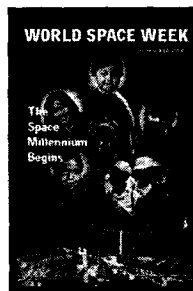
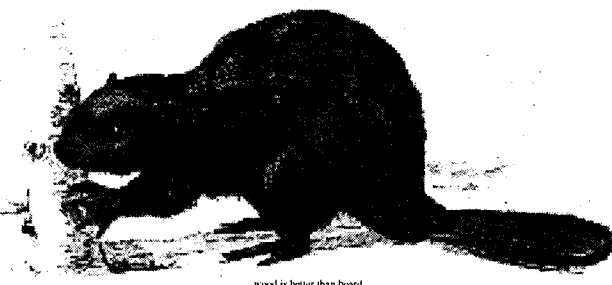


Entertainment!  
Ticket Stub page 4  
culture column page 2



## Space Week:

Fri. 10/6 8pm Olive Walk:  
"2010: The Year We Make Contact"  
followed by a telescope night.  
Wed. 10/11 7:30pm 151 Sloan:  
Talk by Professor of Theoretical  
Physics and Astrophysics  
Marc Kamionkowski

# The California Tech

VOLUME CII, NUMBER 3

PASADENA, CALIFORNIA

OCTOBER 6, 2000

## AUTHOR KAY JAMISON TO TALK ON SUICIDE

BY KEVIN AUSTIN, DIRECTOR OF  
STUDENT COUNSELING SERVICES

Do you wonder whether a friend or family member is so depressed that they might take their own life? It's very frightening to think you could lose someone to suicide, but it does happen. Suicide is the second leading cause of death for people 15-24 years old in the U.S., and the eighth leading cause of death for people of all ages. The number of people who commit suicide around the world every year is staggering. Maybe you have thought about suicide yourself. While many people do consider suicide, this means that something is very wrong, often that a person is clinically depressed. The vast majority of people who attempt suicide suffer from some form of mental illness, most often depression. Depression causes the kind of despair that leads someone to consider suicide. But depression can be treated. Often it takes someone to recognize that a friend or family member is depressed and to help this person get help.

Dr. Jamison, a Johns Hopkins Professor of Psychiatry and author of five books and over a hundred professional articles on mood disorders and suicide, will present her research on the causes of suicide and what can be done to prevent it. In addition to discussing research, she will talk about her own struggle with manic-depression and her successful fight against despair and suicide. Please attend her lecture Friday, Oct. 13th, 8p.m. at Beckman Auditorium. Tickets are free and available at the Caltech Ticket Office and the Caltech Y. If you'd like to speak with someone about a friend or family member's depression, or your own, come talk to us - we want to help. The Caltech Student Counseling Center (x8331) is located in the Health Center (behind the tennis courts). If you'd like to take a self-test for depression or learn more about depression and suicide prevention, check out our web site and links at: <http://www.counseling.caltech.edu/>

## Changes come to board plan

BY JOHN OH

The incoming frosh aren't the only new things on campus this year. A new undergraduate board plan was unveiled this year by Caltech Dining Services (CDS) designed to give undergraduates more choices in their meals. Named after Caltech scholars of infamy, the Feynman and Millikan plans offer equivalency dollars that students can use at other CDS locations, such as Avery, Chandler Dining Hall, and the Red Door Cafe. The traditional plan of five lunch and dinners every week remains as the Richter plan.

The Millikan plan allows 5 dinner meals and 3 lunch meals per week, plus \$14.28 per week declining balance funds; the Feynman plan allows only 1 lunch per week, but gives \$28.58 in declining balance funds. Students on either of the declining balance plans must swipe their ID cards at the card reader each lunch. Those remaining on the traditional

plan have no need to do so. According to Andre Mallie, head of CDS, a swiping machine will be installed in each of the houses and there will be no need to punch in exact amounts. Also, Avery Vouch-



Dinner is served Caltech-style

ers have been replaced with a flat \$8.00 per week allowance for all students not on the Avery plan.

The idea began two years ago as a committee led by then Blacker House food chair David Tytell. "[David] was a very active food chair, very responsible with a good vision of what's happening, and working together we look at what should be done - for a long time

Caltech has had the same program," said Mallie. Through evaluation and surveys, the committee set out to revamp the board plans to offer more flexibility for the student. Mallie describes two

different plans that were in effect, the traditional board plan and the Avery plan. "[The traditional plan] revolves around the house, it's a programming oriented strategy. If you look at Avery, it is a customer focused strategy."

Avery House was the first to go on a declining balance system because it was small and because there was a need to encourage faculty and graduate students to reside in Avery. The plan was to test the declining balance in Avery for one year, and then to create a plan to offer the same declining balance system

while supporting the house system.

The new plans are a result of CDS's and Mallie's work with the house president to create a compromise between supporting the house dinner traditions and offering a customer focused declining balance program. "We decided to keep dinner the same. Then it was identified that the upperclassmen wanted more flexibility, so we came down the plan we currently have now."

Another issue in keeping the dinner plans the same was the issue of keeping track of meals eaten at the house kitchens. "But the issue was about swiping the cards, how do we deal with that? We had a lot of different ideas. Some of the ideas were that the head waiters take all the cards and swipe them, or we could have the people swipe the card." It was decided to take changes a step at a time, beginning with only flexibility for lunch meals. Mallie plans to observe the new plans for a term and to meet with house presidents to discuss any further changes.

## Integration without calculus

BY SERINA DINIEGA

On Wednesday, esteemed mathematician Tom Apostol lectured to a room full of colleagues, graduate students, undergraduates familiar with his books ("Calculus," Vol. 1 & 2), and general admirers. He spoke of a new "Visual Approach to Calculus Problems" - an approach so simple that he hopes to teach it to a wide audience through Project Mathematics ([www.projectmathematics.com](http://www.projectmathematics.com)). Put simply, this method calculates integrals without using calculus.

This new method, conceived by Mamikon A. Mnatsakanian in 1959 and published in 1981, finds the areas under curves using geometry instead. Illustrating the method with computer graphics, Apostol and Mnatsakanian found the area under a parabolic curve, an exponential curve, the arch of a cycloid, and a tractrix - all using geometry and no integrals.

The method outlined in "Mamikon's Theorem" correlates the area swept out by tangent vectors along a curve with the area swept out by the tangent vectors with a common tangent point. With this method, it is necessary only to know the beginning and ending points of the curve and the angular difference between the tangent lines and then find the area

of a rotation with the same angle.

For instance, in a tractrix the tangent vectors are all the same length. The "tangent sweep" is the area beneath the tractrix covered by the tangent vectors. This area is equal to the "tangent cluster" - the section of a circle formed by rotating the vectors around a set tangent point. If we look at the tractrix from zero to infinity, the calculus becomes horrendous. However, using "Mamikon's Theorem," the area beneath the tractrix is just equal to a fourth of the area of the circle with radius equal to the tangent vector. No messy integrals, no differentiation, nothing more than a simple geometric equation.

The "General Form of Mamikon's Theorem" is as follows: the area of a tangent sweep is equal to the area of its tangent cluster. The beauty of this theorem is that it provides a very interesting correlation between differentiation (the tangent vectors) and integration (the area beneath the curve). It also provides a new proof of the Pythagorean Theorem.

At the end of his talk, Apostol publicly thanked Mnatsakanian for teaching him about this new approach to calculus. It is the writer's opinion that this sentiment was shared by everyone in the room, and that Apostol should include a chapter about it in "Calculus," Vol. 3.

## Space Week at Caltech

BY JONATHAN FOSTER

On October 4th, 1957, the U.S.S.R launched Sputnik I, and the world has never been the same. Simply launching a little metal ball into orbit would not necessarily change the course of a planet's history, but the political situation of the time meant that this little metal ball launched the space race.

Not coincidentally, the United Nations chose Oct. 4th-10th for the First Annual International Space Week. The start of the week is the anniversary of Sputnik's launch, and the end is the anniversary of the adoption of the World Space Treaty (October 10th, 1967). Another milestone coincides with the week's activities: the space shuttle Discovery was scheduled to be launched as the 100th shuttle mission on Oct. 5th of this year (though as of press time the launch has been delayed until Oct. 6).

Caltech has strong connections to the space program through JPL and several student clubs, so it is not surprising that there are several events on campus planned for Space Week (see skybox). Says Loretta Hidalgo, a Caltech student who served as a youth delegate to the United Nations 3rd Unispace Conference (which originally suggested the idea of an international space day): "I think the goal is to get people to think about space. Not just to help get more kids to study math and science, but because it's an important human endeavor that can affect all of us... something that can bring the world together like the pictures of the earth taken from Apollo, and something that will become more real in the next ten years as more non-astronauts go into space..."

Space Week activities at Caltech are co-hosted by the Caltech/JPL Mars Society, SEDS, and Spectre.

### Inside the Tech

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## News and Letters

## Yoghurt

BY LUDWIG AND IMMORTAL  
BELOVED

Welcome to the new semi-weekly column that brags to have more culture than your yoghurt. Here you will find information on cultural events that are happening around Pasadena and the greater L.A. area. Furthermore, we're running a contest this term that could get you an evening out with the columnists. We'll be changing pseudonyms each column. Identify each allusion and you'll be entered in a drawing to win dinner and a concert with us for you and a guest (enter by emailing tech@ugcs.caltech.edu).

This week the Los Angeles Philharmonic is performing Schoenberg's *Survivor at Warsaw* and the Ninth Symphony of Beethoven.

Schoenberg's "Survivor at Warsaw" was written in response to the fencing off of the Jewish ghettos in Poland. Schoenberg had already fled the Nazi regime predicting prophetically that anti-Semitism could only lead to violence.

From the technical view this piece was written using the twelve-tone system that Schoenberg pioneered. A predetermined set of twelve notes forms the basis for the entire piece and is then manipulated and tweaked throughout the composition. Leonard Nimoy (yes, that Leonard Nimoy) is the narrator for the piece.

The second piece is definitely the more recognized. While the final movement of Beethoven's Ninth is in the running for the most overplayed piece of classical music, there is a reason it is heard so often. It's that good. The Ninth is the first work that brings voice into a symphonic work, thus paving the way for the great choral works of Mahler.

The most amazing thing about the Ninth Symphony is that Beethoven never heard it. By the time it was written and performed he was completely deaf. At the premiere of the piece in 1824 Beethoven appeared to conduct both the orchestra and the choir but actually did nothing: the conductor had given instructions to ignore him. He continued to beat time after the piece was finished and did not turn to acknowledge the applauding audience until someone physically turned him.

There are three performances this weekend: Friday and Saturday night at 8 and a Sunday matinee performance at 2:30. Rush tickets with a student ID are \$10 at the box office beginning two hours before the performance at the Dorothy Chandler Pavillion.

## LETTERS TO THE EDITOR

A Response to  
the CS1 Petition

Jay, Dev, Travis, and others concerned about programming pedagogy,

The CS Department agrees with you completely that: "As computation becomes integral to all fields of scientific exploration, we believe that it is essential that Caltech students be able to write and understand programs"

We, however, disagree with your conclusion that: "There is currently no course at Caltech designed to teach students how to write practical computer programs."

CS1,2,3 is designed to teach practical programming skills. Looking carefully at the language of the petition, I will go out on a limb and hypothesize that our disagreement lies in our assessment of what fraction of "practical programming skills" lies in knowing a particular set of keywords and how to punc-

uate a computer program versus how much lies in the concepts of what a program is, what a program means, how to design programs to accomplish specific goals, how to write efficient programs, how to understand existing programs, how to debug programs, and how to manage the complexity which ultimately arises from engineered systems. Conceptually, these later issues about design and engineering are much much bigger than syntactic issues of what a legal C program looks like.

We all know Caltech students are brilliant. Caltech students are also independent and capable of learning a considerable amount outside of the classroom (in fact, most Caltech courses implicitly expect as much). Once a student understands the key ideas behind programming (regardless of the language they learned it in), he or she can transfer that knowledge to another programming language with a minimal of additional effort—I'd venture to say anyone who masters the material in CS1,2,3 should

be able to pick up any widely used language in a weekend by scanning an introductory book and working a few examples.

Computer languages come and go. Not long ago, FORTRAN was the preferred language for scientific computing and JAVA did not exist. Within your lifetime many new languages will be invented, replacing the ones which are now in vogue. Your Caltech courses are not the end of your learning, but the beginning. You will do well to learn the broad programming skills now and gain the confidence that you can transfer that understanding to any new language which comes out.

That said, I think it would perfectly reasonable to spend one week on each of two or three contemporary languages at the end of CS3 as concrete examples of how you can transfer your skills developed during the rest of the class to particular, different languages.

Andre' DeHon  
Asst. Prof. of Computer Science

## Outside World

BY ERIK DILL

**Belgrade, Serbia**—Hundreds of thousands of protestors stormed Parliament, calling for the installation of Vojislav Kostunica, the pro-democracy candidate who allegedly defeated current president Slobodan Milosevic in a recent election.

**Israel**—Over 65 people, most of them Palestinian, have been killed in violent protests over the past week.

**Rudaki, Tajikistan**—Severe drought in central Asia and a series of bad harvests threaten about three million people of this former Soviet state with starvation.

**London, England**—The Human Rights Act took effect, giving British citizens an explicit bill of rights for the first time.

## CORRECTION

The ASCIT web budget was reported incorrectly in the September 29th edition. The current budget for the project is \$3000.

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# ASCIT minutes

## ASCIT minutes

OCTOBER 2, 2000

### Board of Directors, 2000-2001

Eric Tuttle, President  
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 Jason Cardema, Secretary  
 Sean McHugh, Treasurer  
 Chris Elion, IHC Chairman  
 Emma Kang, Director for Academic Affairs  
 Melinda Turner, Director for Social Activities  
 Meghan Smith, Upperclass Director-at-Large  
 Martha-Helene Stapleton, Freshman Director-at-Large

### Minutes of the ASCIT BoD Meeting

Present: BoD; Guests: OASIS - Dinkar Gupta, Neha Soni, Prashant Purohit; AACIT - Michael DeSalvo; Keepers of Donut - Jonathan Dama, Robert Christy, and Dylan Simon  
 The first meeting of the year

is called to order at 10:03 pm.

Guests

OASIS asks for \$250 for their fall cultural show on November 8 in Remo Auditorium. Their program includes Indian dancers, Indian classical music, a flute recital, and a skit by undergraduates and is open to the whole Caltech community, including JPL. They are also asking various other sources for funding, and are also helping to defray the cost themselves by selling tickets. Eric tells them to include the cost of this yearly event in their budget proposal at the Budget Meeting (held every year during third term) next time. Martha-Helene tells them to publicize on donut.caltech.edu.

Michael, from the AACIT, requests funding mainly for the National Intercollegiate Flying Association's SAFECON competition, which will be held in Arizona this year. Eric also tells them to include this event in their budget proposal next time.

Then in comes these three guys, really proud of their project, the donut.caltech.edu website, which the BoD agreed was pretty cool. They even have a section for clubs, where users can find links to web pages and email addresses. Clubs can post

on an event calendar, to keep people up to date on activities. The only problem is that not enough clubs have registered. Jon suggests that ASCIT should require clubs to register on donut.caltech.edu before they can request funding. We like that idea. Martha-Helene will email the clubs right away about our new rule.

The Bookmart is doing pretty well, with 224 postings at the moment. Ex-ASCIT President Baldeep Sadhal liked it too, saying, "It's everything I ever wanted in a bookmark, and more."

Martha-Helene receives advice from the donut guys for putting the UROH online. Emma asks them about working on the CLUE. Laura asks about having a place to sell random junk. The donut guys tell us that there is a Classifieds section on the web page that is still being implemented. Someone suggests having a personals section too, and we all laugh.

Eric asks them about implementing the ASCIT DVD Library checkout system in the Coffeehouse. We need an inexpensive computer for it, which shouldn't be a problem since according to Eric, "we have <blankety> computers up the <blank>!" The donut guys say they'll work on it as long as they

can get someone else to do the data entry, which should be easier with one of those free bar code scanners from Radio Shack.

### General Meeting

Martha-Helene, the keeper of the ASCIT scrapbook, will submit some pictures to Erik Dill for publication in the Big T yearbook, which is still in the works.

We are still looking into the ASCIT endowment, which has been in the planning stages for years. Eric found an old file by Baldeep from 1998 about it. Eric, Sean, and Jason will figure out all the details, including how to put money in, what kind of performance to expect, and what happens when we take money out.

There have been a lot of questions about when the Coffeehouse will be opening. Eric will contact Marcel, who is still the manager. One proposed improvement this year, besides the DVD library, is to have a Playstation, and maybe a Super NES, for the TV in the back room. This is Marcel's best idea so far. Chris will look into the SNES and comic book subscriptions.

We are down to two remaining ASCIT lights. Melinda says houses borrow them, but don't return them. Eric will ask the Caltech DJs about buying some

replacements.

The Hipster/Donuts event was a good replacement for the lame ASCIT rotation party we usually have. We even came in under budget.

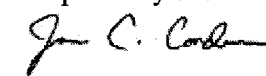
The Screening Room will be completed soon, as a place where ASCIT members can watch DVD's on a big screen TV with audiophile-quality sound in the comfort of SAC 35. We have the audio equipment picked out from GNP, an audio equipment store on Colorado owned by an alum. Eric, Laura, Sean, and Jason will look into big screen televisions this Friday. The study room (where the old arcade room was) still needs to be worked on.

ASCIT decides to give \$250 to OASIS for their fall cultural show. We will postpone deciding how much to fund the AACIT club until we can straighten out the rest of our finances.

To figure out when we should have our meetings for the rest of this term, we pass a schedule sheet around. It comes back completely filled except for Monday nights from 10 pm to midnight.

Meeting adjourns at 11:45 pm.

Respectfully submitted,



Jason C. Cardema

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# Movie Review

## The Ticket Stub

by Justin Ho

### Almost Famous

*Rated R: for drugs, booty, and all those things your parents tried to shield you away from when you were 12*

*Ticket Stub rating: A- yeah, it still gets an A though*

The early '70s was a nebulous, transitory era for music, with the emergence of disco and the great monolith of rock taking its last deep breaths. The appearance of rock bands ceased to be novel, since soulful singers had already populated the scene with self-reflection and nihilism since circa the Vietnam War. In the post-war period, what talent that did surface was caught between appearing like a clone of a more famous predecessor (Mandy Moore vs. Britney, anyone?) and feigning musical integrity uncorrupted by commercialism. Being almost famous, an impatient limbo between stardom and obscurity, was nevertheless a training ground for wannabes experimenting with either selling out or staying true to music that could only be appreciated by the

minority of deep thinkers and feelers, but in either case with a dash of drugs and groupie-banging on the side.

"Almost Famous" never directly confronts the issue of being what may be termed "indie" by today's standards by staying underground, vs. having a throng of adoring fans and making music down to the every-day appreciator. The fictional band "Stillwater" studied in the film is already a conformist to the counter-culture of rebels drenched in their own megalomania and sleaze. But even in the eyes of a martinet, one thing is redeeming about them - both figuratively and literally, they rock.

"Almost Famous" is a film which builds on lovely contrasts and irony: the straight-arrow vs. the sinful, the laid-back hippie vs. the over-achiever, the uber-nerd vs. the slacker. Even more so, there's an indication that all sides can get along. But the peace which erupts isn't the result of grudging compromise - it's a smack down, like when a mother sending her son into the bordello of a rock concert screams after him "Don't Do Drugs!" like a message from an

after-school special, only to get a mocking repetition from crack-heads and boozers. The effect, while distressing to the parent who may drop her boy off at a concert only for him to return as a man, is fiercely comical.

The circumstances of the story are delightfully absurd. William Miller, a 15-year old boy with cherubic qualities and over-achieving talents, manages to land a freelance assignment with "Rolling Stone" magazine after a phone conversation. Rock



POSTER COPYRIGHT BY DREAMWORKS PICTURES

journalism would be an occupation frowned upon, not only by those of official culture, but even by those who thrive on chemically-induced, sexually-charged hedonism, who playfully regard William as "the enemy." Yet he infiltrates the band tour with ease, and is accepted, whether out of respect for his integrity and honesty as a journalist and critic, or his willingness to please the band members as a new addition to the Stillwater

groupies. It is a task at once engaging and ostracizing, depending on the mood of the band members as they grapple with the awesome band they can become and the semi-respectful mélange they already are. As a journalist, William is first and foremost an observer, at once invited into indulging in the seductive, intoxicating lifestyle, but choosing to abstain. Though he's the least experienced, he is also the most jaded, choosing wisely only to lurk about in the company of thrill seekers.

William is pressured by the magazine to wrap up his story after a few days on his rolling road trip with the group and its self-proclaimed "Band-Aids," a pseudonym for somewhat post-feminist nymphs, but otherwise typical groupies. An interview with the lead guitarist, Russell, proves elusive, and essentially there is no serious input from the musicians, no stirring account of what music means to them, or what music of the '70s really is. But in the topsy-turvy culture of the rock machine, it is this indefiniteness that characterizes its existence. Ostensibly the group is still conformist because it has allied itself with the non-conformist, rebel culture. But the music and their lives are free and unadulterated, amorphous and linked. The indecipherability of what it all means, whether their lives ceased to be real because it was injected with abstract elements like fame or psychotropic effects, is an allegory for the cul-

tural landscape, which was ripe for philosophical or existential questions but fell short of answering them with a simple response. The story isn't simply the music or the band members, but the entire demi-god culture that has sprung up around them, in which they are most euphoric to indulge. As William flips through photographs and scribbled notes of random occurrences, the words emerge in a flurry. The music does not exist without its fans, without its strife, or without its share of drama. And bereft of the constraints of "on the record" material, he writes with a freedom which mimics the free-spirited groove of the '70s.

In form and content, "Almost Famous" is absolutely original and creative. Its cast of lesser-known though rising stars may have caused a dearth of attention in the mainstream, but this is, after all, a film about counter-culture. Conversations between characters come off as both over-the-top and genuine at the same time. Though the film bubbles with levity, it is not without its more serious moments, which do much to introduce the actors' versatility and naturalistic chemistry on-screen. As another quality worthy of applause, this film has the most touching and clever insights on the greatness of the "uncool." The film is attractive and equally appealing to conservatives who may say the world is doomed to hell and liberals who say we're not free enough.

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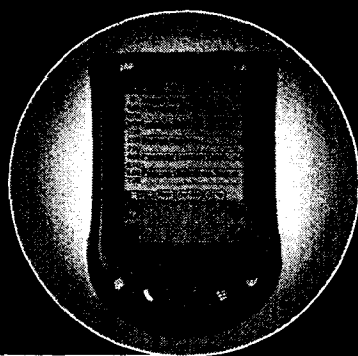
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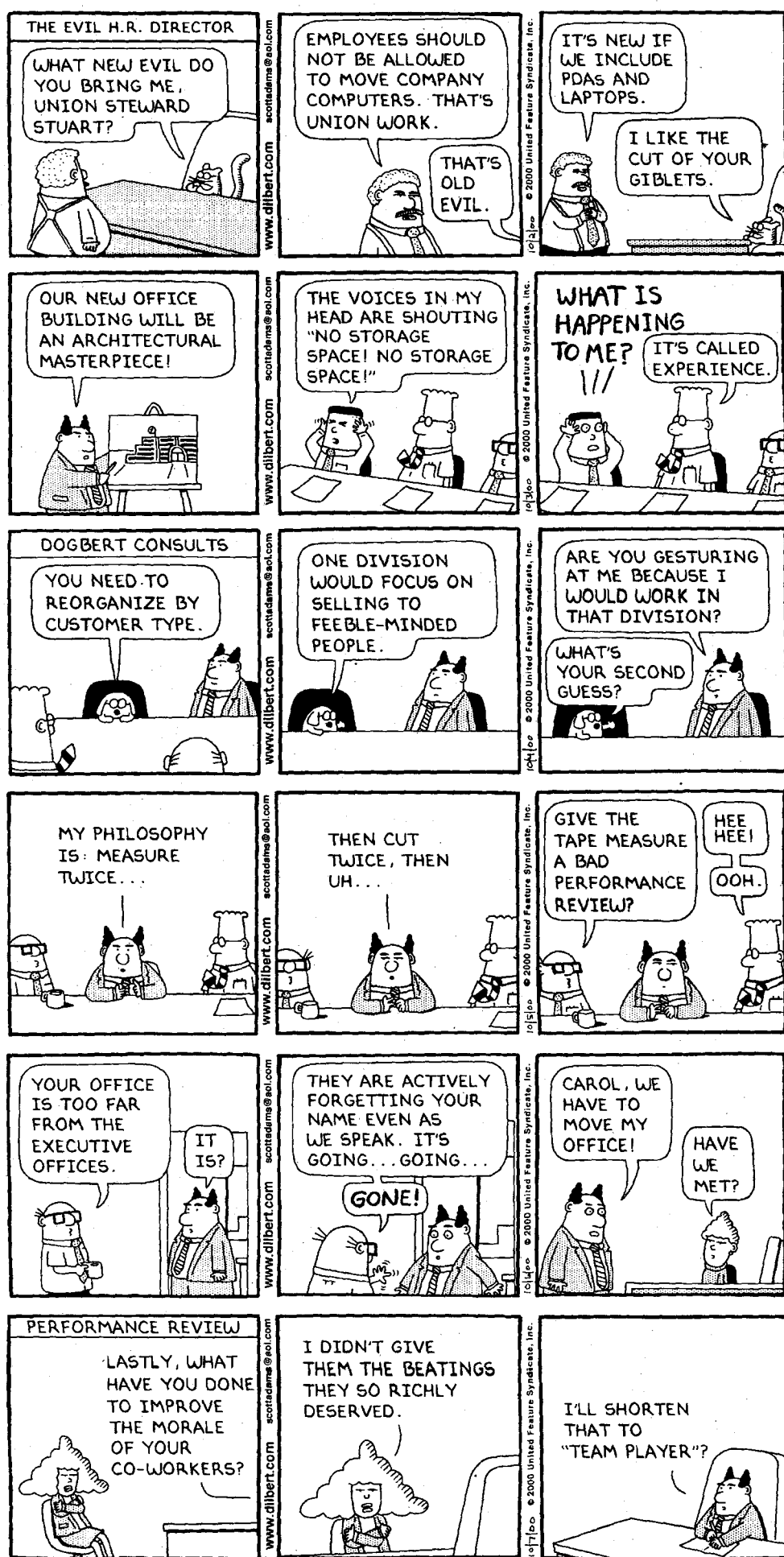
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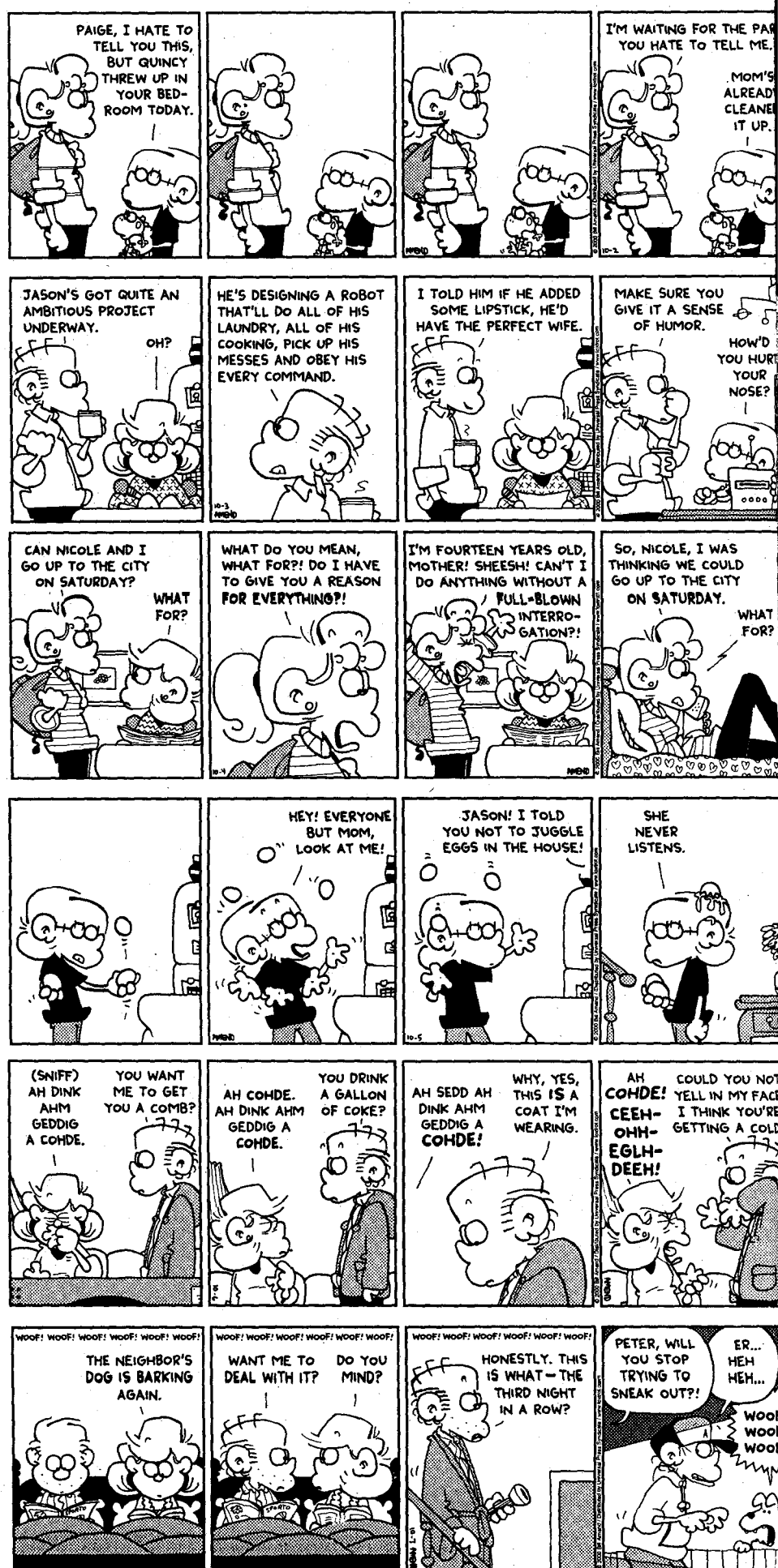


## Comics

## DILBERT® by Scott Adams



## FoxTrot by Bill Amend



## Y news

by Kenneth Kuo

Welcome to a new school year at Caltech, where wonders will never cease (nor will the misery). Like any new year, this one provides an opportunity to experiment with new ideas and activities. This year, consider involving yourself with the Caltech Y.

The Caltech Y is one of the most active clubs/organizations on campus. It sponsors activities like Compression;

Y Hikes, Decompression, and Noon Concerts. Primarily, the Y provides students with the opportunity to get away from Caltech to do a couple of things: help someone in need (e.g. tutoring, Union Station [homeless shelter], Christmas in April), and enjoy oneself (e.g. ASCIT/Y Beach trip, day hikes, Alternative Spring Break).

Today we will sponsor our first noon concert of the year on the north end of Winnett Student Center. It will feature Brigitte Roth, Caltech Class of 1999, who has returned from her one-year world tour of street performance.

As indicated in our mission statement, the Y exists to "provide resources and

opportunities to enrich student life; to enable students to learn about themselves and their place in the world community through increased social, ethical, and cultural awareness; and to address unmet student needs."

One should note that for most people, college is not entirely about academics—there is always a personal growth side that should be addressed.

To learn more about what the Y does, please come to our meetings. They are held on Mondays from 12:15 PM to about 12:55 PM in the Y Lounge, located on the first floor of Keck House. So bring your lunch, a friend, a book, and most of all, your ideas.

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Fri. - Thu. [12:45] 3:00 5:20 7:40 10:00TWO FAMILY HOUSE (R)  
Fri. - Thu. [11:45] 2:10 4:35 7:00 9:25UNDER SUSPICION (R)  
Fri. - Thu. [11:30] 2:00 4:35 7:10 9:45GOYA IN BORDEAUX (R)  
Fri. - Thu. [1:30] 3:50 6:10 8:30DECALOGUE THREE AND  
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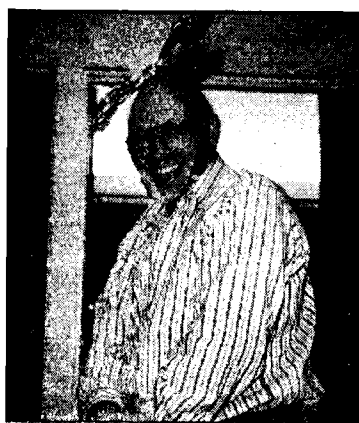
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## Dean

## Dean's Corner

## The Caltech Olympics

by Jean-Paul Revel



After weeks of exertions - translational, rotational and emotional, after another week of living out of suitcases, having dinner in different places each night, and meeting all kinds of people, you have finally reached a haven, a place more or less your own. You have also lost a major source of distractions, all the carousing and evaluating and deciding where you would fit in best, where the atmosphere is most congenial. The time has come to concentrate on the real reason you are here at Caltech, at least so I believe, and that is to build up your knowledge and your skills, to explore, to form the basis on which to build the rest of your lives. Can I say it? You won't laugh, will you, or worse yet, smirk? I envy you! You have a chance to walk through any of dozens of doors, each leading to an enthralling career, a life of discovery and understanding, of intellectual satisfaction. I don't know, maybe it is not cool to drool

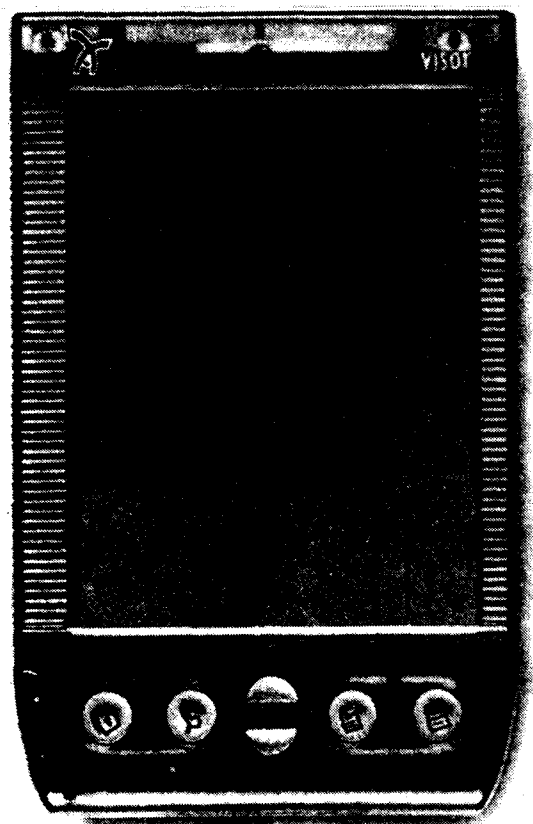
(yuck, right, not cool and not sanitary either), anyway to go gaga (well I hope not gaga, but, you know, you know, like, gaga) over all the wonderful futures that await you. But let me indulge in my dream. To reach and exploit these treasures you must be well prepared. That is no different from other endeavors, say the Olympics, to choose the example du jour. There as here, beyond mere ability, there has to be an urge to do well, a drive to practice, practice, try again, pick oneself up after failures and push, push beyond what you thought was possible. Actually I know little about sports, and did not follow the Olympics attentively. Completely by chance, while dial surfing, I came across a match between the US men's basketball team, and that from Lithuania. The US, I gathered, had squandered a large early advantage, and when I started watching, the lead was seesawing between the two teams. The US won, but if the game had ended a few seconds earlier, they would have lost.

The commentators kept prattling on about how unexpected it was to have the US team, composed of NBA players and with a history of victories, challenged by players from a little country on the shores of the Baltic sea, with a population less than that of Sidney. Patronizingly they congratulated the losing team, gargling with champagne poured out for a victory which seemed to me earned by accident. In the final match for the gold (against France) the U.S. team again barely managed to win. Now I have already said that I do not know much about sports. (That makes it much easier to pontificate). Perhaps the reporter's comments were justified, and the Lithuanians, besides being plucky, had been lucky. Without little accidents of fate, they would not have gotten that far. But I can't help but think that the US team behaved as I hope you will not. They were talented (in Caltech terms, very bright), they were good at the game (after all, they are pros). But maybe they were so sure of themselves, so certain they would vanquish, that they did not practice hard to be a team, or apply themselves with as much

concentration as they might have, once victory seemed to be at hand. Everything you need to succeed is here. All you need to do is to avail yourself of the opportunities. You know, we are a small school, we have small classes, famous profs and many dedicated teachers. We have selected super bright people to be your classmates, and what with everything else we provide, and your own well directed efforts, it should be a winning combination. Yet not all students manage to perform at the expected level. One reason seems to be that when you get here, there are many things which compete for your attention. Concentration is as essential to scholastic performance as it is for athletic success. Unfortunately school work is far from being the only thing on your mind, and it may not even be the topmost one. You need to try out your wings, to explore new areas, to make new friends, to establish connections, to find a copacetic niche. All of this takes energy and time away from your studies. To succeed you have to learn to balance intellectual and worldly endeavors. In fact some of the reasons the first two terms are pass/fail is to give you time to learn to balance these conflicting demands, and to get accustomed to the pace and depth that we demand. Contrary to common lore P/F is not about painlessly taking courses that are too advanced, or reputed to be difficult. So now

how should you react if things go wrong? In the Olympics all you can do is keep a stiff upper lip and gamely cheer your competitor's gold medal. Here at school, you are still in training and failure means a chance to recognize and correct problems. To start with, make sure that you participate in the learning activities which are being offered. I mean going to lectures, at the price of getting up in the morning, attending recitations, participating in discussion groups. There is no shame in talking about your problems to others. Talk to successful upperclassmates, your faculty advisor or TA, or with one of the deans. There is no point in going to school if you insist on doing it alone. You might as well sit in your mom's living room, surrounded with textbooks. It would be cheaper and much cozier. So swallow your pride and ask for help, today; if you wait for tomorrow, things may be worse. All of you are capable of operating at the highest level. Those of you who have problems often just do not take advantage of all of the support systems. Can you imagine an Olympian making do without a coach, a masseur and perhaps even a sports psychologist? So why not you? A bientot.

*Jean Paul Revel*  
Jean-Paul Revel



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# Mints

## ANNOUNCEMENTS

**Center for Student Services Open House** on Tuesday, Oct. 10, 2000 from 3-5 p.m. The building is located at 414 S. Holliston. The campus community is invited to join Student Affairs at an Open House for the new Center for Student Services. The Open House will begin with brief remarks from Pres. Baltimore, Provost Koonin and VP for Student Affairs Brennen. There will be refreshments and entertainment. Complimentary phone cards will be given to the first 150 to arrive. Please come and tour the building.

**Additional HSS Course Announcement for Fall Term 2000-01:** Lit 129 Austen, Bronte, Woolf: An introduction to four of the most important English writers of the nineteenth and early-twentieth centuries. Understanding these novelists as a tradition, we will pay particular attention to formal developments in the Novel from the marriage plot through modernism. Jane Austen, Charlotte and Emily Bronte, and Virginia Woolf's major works—including but not limited to Emma, Persuasion, Jane Eyre, Wuthering Heights, Mrs. Dalloway, To the Lighthouse. Instructor: King; TTH 1-2:30; Lit 101 Elementary Chinese I - Instructor: Ming; OM, M 7:30pm 125 Baxter; SS 200 Reasoning about Knowledge - Instructor: Heifetz; TTH 10:30-12 27 Gates. Courses that did not make fall term pre-registration: Lit 123 The Nineteenth-Century English Novel did not make fall term pre-registration. It will be offered on W 1-4pm in 127 Baxter - Instructor: King

**CIT Guitar Classes** for the spring quarter will meet on Tuesdays in SAC Room 1, starting on October 3 as follows: Beginning Guitar Class: 4:30 PM - 5:30 PM, Intermediate Guitar Class: 3:00 PM - 4:00 PM, Advanced Guitar Class: 5:30 PM - 6:30 PM. Classical and flamenco repertoires are explored, but techniques transfer to other styles of guitar. The Beginning Class includes a jazz/folk chord system. Classes are free to Caltech students and other members of the Caltech community (space permitting). Undergrads can receive 3 units of credit. The instructor, Darryl Denning, has an international background in performance, teaching and recording (two of his CDs are available in the Bookstore). Mr. Denning can be reached at (323) 465-0881 or by email at: [ddenning@caltech.edu](mailto:ddenning@caltech.edu). The Guitar Home Page is at: [www.cco.caltech.edu/~musicpgm/guitar.html](http://www.cco.caltech.edu/~musicpgm/guitar.html)

The **Caltech Ballroom Dance Club** [CBDC] continues its offerings of dance classes and parties for the new term. **Beginning West Coast Swing** - taught by a professional dance instructor, five week series starting Mon 2 Oct'00: \$20/series for undergraduates, \$30/series for others. The lessons will be held from 7:30 to 9:00 pm on Mon in the Winnett Lounge with a 1/2 hr. practice period after each lesson. Refreshments will be provided, and no partner is required.

**Beginning Argentine Tango** - "Amateur"-taught, four week series starting Wed 4 Oct'00, free for undergraduates, \$1.00/lesson for others. The lessons will be held from 7:30 to 9:00 pm on Wed in the Winnett Lounge, with refreshments and a 1/2 hr. practice period after each lesson. Refreshments will be provided, and no partner is required.

For last minute changes see [its.caltech.edu/~ballroom](http://its.caltech.edu/~ballroom), or call Don at 626-791-3103

**NCIIA 5th Annual Conference** call for papers submission deadline extended to Sep. 30, 2000. The National Collegiate Inventors and Innovators Alliance (NCIIA) invites proposals for conference sessions for our 5th Annual Meeting on March 6-9, 2001 in Washington, DC. We invite proposals for interactive and creative presentations, panels, poster sessions, and workshops on innovative programs, courses, and approaches to teaching innovation and entrepreneurship at the graduate and undergraduate level. Complete submission instructions appear on our web site at <http://www.nciia.org/events/conf01.shtml>. All submissions must be received by September 30, 2000. We will notify submitters of the status of their proposals by November 1st.

## EVENTS

**Announcement of the Fall Meeting Caltech Science Education Club**, Tuesday, October 17, 2000 5:15 p.m. 287 S. Hill Ave (Building 98 on the campus map) \*\*Pizza provided\*\* Open to all Caltech students, faculty, staff, graduates and Pasadena area community members. Topic: "Make No Small Plans in Science Education." Here is an opportunity to find out about some creative large scale projects in Science Education. Featured presenters: Dr. David Goodstein, Caltech Vice Provost and Gilloon Distinguished Teaching and Service Professor of Physics and Applied Physics. Dr. Jennifer Yure—Director of Science Instruction (PUSD) and a founder of the S.E.E.D. Project. Dr. Jim Folsom, Director of the Huntington Botanical Gardens, San Marino, California—As Director of the Huntington Botanical Gardens, Dr. Folsom has promoted development of the gardens and research in botany.\*\*\*Please let us know if you are planning to attend the meeting on October 17th so we can reserve a place for you (and pizza too!). Email Art Hammon at [ahammon@caltech.edu](mailto:ahammon@caltech.edu) or leave a phone message with the CAPSI receptionist at x3222

**Join Avery house for the first fire side chat** on Wednesday, October 11 at 7pm in the Avery Library. The Einstein Papers Project at Caltech: A conversation with Prof. A. Kox, Pieter Zeeman Prof. of the History of Science at the University of Amsterdam and Diana Barkan, Assoc. Prof. of History at Caltech. For more information, please view the following web sites. <http://soliton.wins.uva.nl/~kox/> or <http://www.einstein.caltech.edu>. Refreshments will be provided.

freshments will be provided.

The **Caltech Ballroom Dance Club** hosts a series of weekly "mini-parties", i.e., no lesson/demonstration or theme as done for the "regular" parties. The parties are free and take place in Winnett Lounge after each pro-taught class [West Coast Swing for the first half of the Fall'00 term and probably the Lindy for the second half] on Mon from 9:00-11:00pm. Refreshments are provided and no partner is required. From 9:00 to 9:30pm music pertaining to the previous class will be played, but after 9:30pm feel free to make requests or bring your own music.

A Milonga [Argentine Dance Party], will be held 8:00-1159 pm in Dabney Lounge Fri 20 Oct'00. The party is free, refreshments will be provided, and no partner is required. For last minute changes see [its.caltech.edu/~ballroom](http://its.caltech.edu/~ballroom), or call Don at 626-791-3103

**Science, Ethics, and Public Policy Lecture Series** for Fall Quarter 2000:

Dr. Anne Kox, Pieter Zeeman Professor of History of Physics, Institute of Theoretical Physics University of Amsterdam, Lorentz vs. Einstein: The Special Theory of Relativity in Historical Context Thursday, October 5, 2000 4:00 p.m. Room 25 Baxter Building

Dr. Andrew Scull, Professor of Sociology and Science Studies, The University of California, San Diego, Combatting the Perils of Pus Infection: A Cautionary Tale from the History of Psychiatry, Wednesday, October 18, 2000 4:00 p.m. Room 25 Baxter Building

Dr. Myles W. Jackson, Assistant Professor of the History of Science, Willamette University, The Standardization of Aesthetic Qualities: Physics and Music in Nineteenth-Century Germany, Thursday, November 9, 2000 4:00 p.m. Room 25 Baxter Building

The William and Myrtle Harris Distinguished Lectureship in Science and Civilization presents Dr. Peter Galison, Professor of the History of Science and of Physics, Harvard University, Poincare's Maps and Einstein's Clocks, Friday, December 1, 2000 4:00 p.m. Beckman Institute Auditorium

Seminars are on the Caltech campus and are open to the community at no charge. For information, contact Michelle Reinschmidt at (626) 395-4087 or [michelle@hss.caltech.edu](mailto:michelle@hss.caltech.edu). For a complete list of SEPP Seminars and Harris Lectures scheduled for this academic year visit our Website: <http://www.hss.caltech.edu/ses/SEPP.html>

## SCHOLARSHIP

*The Financial Aid Office has applications and/or information on the following as well as additional undergraduate scholarships. All qualified students are encouraged to apply. Our office is located at 515 S. Wilson, second floor.*

\* The Hispanic Scholarship Fund (formerly the National Hispanic Scholarship Fund) is accepting applications for scholarship awards ranging from \$1,000 to \$3,000. Applicants must be U.S. citizens or permanent residents of Hispanic heritage, full-time undergraduate work with a minimum 2.7 GPA. For further information about HSF, informative links, and tips for applying, visit their web site at [www.HSF.net](http://www.HSF.net). Applications are available in the Financial Aid Office and Office of Minority Student Affairs. Entries must be submitted to the Hispanic Scholarship Fund (HSF) by October 15, 2000.

\* The Measurement Science Conference (MSC) has established scholarships to students in an Engineering or Science or Quality Assurance degree program. The scholarship program places emphasis on papers or projects that discuss the advancement of measurement science technology. Applicants must be U.S. citizens, have a overall grade point average of 3.2 or higher, completed at 24 units of upper division courses in Engineering or Science degree or five courses in a Masters Degree Program in Quality Assurance. Current members of the Measurement Science Conference Committee are ineligible for this scholarship award. Also, applicants must be able to attend the Measurement Science Conference luncheon held on January 18, 2001, at the Disneyland Convention Center in Anaheim, California. Applications are available in the Financial Aid Office. For further information regarding MSC Scholarships, you may contact: Rick Careyette, MSC Scholarships Chairperson, Teledyne Electronics Technologies, Marina del Rey Facility, 12964 Panama Street, Los Angeles, CA 90066-6534. Entries must be submitted to Teledyne Electronics Technologies by December 1, 2000.

\* The AFCEA Copernicus Foundation is offering a \$2,000 scholarship to eligible students working towards an undergraduate technology degree in the fields of computer engineering technology, computer information systems, and electronics engineering technology. Applicants must be enrolled full-time in a technology related curriculum at any four-year institution in the U.S., be a U.S. citizen, and be a sophomore or junior at the time of application. Special consideration will be given

to military enlisted candidates. For further information regarding the AFCEA Copernicus Foundation Scholarship, you may contact Norma Corrales at (703) 631-6141, e-mail [scholarship@afcea.org](mailto:scholarship@afcea.org), or visit their web site at [www.afcea.org](http://www.afcea.org). Entries must be submitted to AFCEA Educational Foundation by November 1, 2000.

\* The National Academy for Nuclear Training is offering \$2,500 scholarships to eligible students majoring in nuclear engineering, power generation health physics, electric or mechanical engineering, or chemical engineering with nuclear power option. Applicants must be U.S. Citizens, enrolled full-time in four-year accredited institution with minimum GPA of 3.0 or higher, and be interested in nuclear power career. Additionally, scholarships will be renewed for current Academy scholars who maintain their eligibility. For further information on the National Academy Educational Assistant programs, please visit [www.nei.org](http://www.nei.org). Applications are available in the Financial Aid Office. Please send completed application materials to: National Academy for Nuclear Training, Scholarship Review Committee, P.O. Box 6302, Princeton, NJ 08541-6302. Entries must be submitted to the National Academy for Nuclear Training by February 1, 2001.

\* Green Hills Software annual awards merit-based scholarships and fellowships to Caltech undergraduates who have demonstrated ability and special aptitude in computer science. The award for the junior year consists of a \$2,500 scholarship. The award for the senior year may consist of either a \$2,500 or \$5,000 scholarship. In addition, one or two applicants are invited to become Green Hills Fellows. Applicants should be second term sophomores with a GPA of 3.2 or higher. The selection criteria include programing ability, academic performance, and faculty and peer recommendations. To apply, applicants must submit an application form, current academic transcript, and three letters of recommendation, preferably from faculty or employers familiar with the student's work. Applications are available in the Financial Aid Office. Entries must be submitted to the Financial Aid Office by October 2, 2000.

To submit an event for the Mints, contact [mints@ugcs.caltech.edu](mailto:mints@ugcs.caltech.edu) or mail your announcement to Caltech 40-58 Attn: Mints. Submission should be brief and concise. Email is preferred. The editor reserves the right to edit and abridge all material. Deadline is noon Wednesday. Unless specified, all mints will run for two weeks.

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