Astronomers Discover Most Distant Galaxy

Submitted by Public Relations

Caltech astronomers have found the most distant known galaxy at a red shift of 4.38, corresponding to a distance of some 14 billion light-years, near the constellation Virgo.

The yet-unnamed galaxy pushes back the earliest known time when galaxies formed to only one billion years after the Big Bang, which created the universe. Studies of this galaxy may tell us something about the early history of our own Milky Way galaxy. The finding was reported in the January 20 issue of Astro-physical Journal Letters.

At a distance of 14 billion light-years, the galaxy is extremely faint and hard to see. The astronomers found it with the help of a quasar that happens to be almost directly behind it. Quasars are the brightest objects in the universe, shining like celestial spot lights; most astronomers believe they are powered by monstrous black holes at their centers.

The Caltech astronomers were involved in a quasar called BR 1202+0725, using the 10-meter-diameter W. M. Keck Telescope, when they made their discovery.

This quasar is one of the world’s largest optical telescopes, and sits atop Mauna Kea, a 13,796-foot dormant volcano in Hawaii. “We were delighted to see in the quasar’s spectrum the signature of this distant galaxy,” explained Limin Lu, a Hubble Fellow at Caltech and co-author of the study. The other astronomers involved are Wallace Sargent, Ira S. Bowen, Professor of Astronomy; Donna Wollabe, also a Hubble Fellow; and Thomas Barlow, a research fellow in astronomy.

The “signature” they saw consists of dark absorption lines in the quasar’s spectrum. A quasar shines brightly at certain wavelengths, so its spectrum is a nearly continuous rainbow of colors. But even between the earth and a quasar, the galaxy’s interstellar gas absorbs certain wavelengths of light, leaving dark lines in the quasar’s spectrum. This is what the Caltech astronomers found, and it announced the galaxy’s presence.

Since it takes light from the quasar 14 billion years to reach the earth after it passes through the galaxy, the spectrum seen today reflects conditions in the galaxy 14 billion years ago. This “lookback” effect allows scientists to see the galaxy on page 3.

Tech Loses Alum Nathan Frei to Cancer

Submitted by Barbara Green

Nathan Frei, class of 1995, died from cancer in Seattle on Monday night. While an undergraduate at Caltech, Nathan was a member of Page House and a social member of Blacker House. He was Page House representative to the Board of Control for a year and then served as Secretary of the Board of Control. In 1993 he was awarded the Deans Cup for his efforts to improve the quality of undergraduate life at Caltech and to establish lines of communication with the faculty and administration.

Nathan was from Pocatello, Idaho where he attended Pocatello High School. Since graduating with honors from Caltech, he had been a graduate student in Chemistry at the University of Washington. He was married to the former Diana McAlon, also a member of the class of 1995.

Students who wish to send messages of sympathy to Diana or to Nate’s parents may contact the Deans’ Office for addresses.

Caltech Reaches Out to Local High Schools

The Office of Admissions, with the help of the Office of Minority Student Affairs, has launched the Partnership Program. The Program has been created to establish a beneficial, working relationship between Caltech and local high schools.

The goals of the Program are to keep students informed about science and technology, about Caltech, and about the college-planning process. Most importantly, the Office of Admissions hopes that the Program will increase the number of students who seriously consider pursuing math and science, and who include Caltech among their college choices.

Over the upcoming months, high schools have been invited to tour the Caltech campus, to have a math or science presentation by a member of the Caltech community, and to participate in a college-planning workshop.

The first school to visit Caltech as part of the Partnership Program was the California Academy of Math and Science (“CAMS”) on January 11. Approximately 70 students from CAMS listened to a seminar presentation by Professor Thomas Roukes and were then given a tour of the campus and the labs.

The next school scheduled to visit Caltech as part of the Partnership Program is Francisco Bravo Medical Magnet in Los Angeles on February 14.

Members of the Caltech community who have questions about the Partnership Program or who would like to help out are encouraged to call Diana Figueroa, Assistant Director of Admissions, at extension x36541.

Prof. Roukes Explains Nanotechnology

by Stephen Van Hooser

Last week, Professor Michael Roukes gave an informative presentation on nanotechnology, one of the most promising areas of condensed-matter physics and perhaps the biggest find of technocratic journalism.

Roukes quickly went through the subject of fabrication of chips using electron-beam lithography and their construction with scanning electron microscopes. A brief tour of the powers of ten proceeded a journey into very small transistors, transmitters, and measuring devices that could experience with the smallest particles of quantum mechanics.

For an educated adult who has had a college physics course, the lecture would have been understandable and informative. Perhaps most importantly, Roukes showed how journalists can sometimes go wrong in trying to explain new scientific concepts that they do not fully understand.

In an unusual twist, Roukes decided to incorporate several videos into his presentation. He began with some video of the late Richard Feynman speaking on the subject in 1985, and, by the time he finished, he had shown video from two IBM labs, some Caltech labs, a simulation by then-ophthomophore Egon Paxtor, and many more. He also switched from slides to overhead to show more technical findings, joking that the scientific community doesn’t really accept slides yet.

Unfortunately, the multimedia program really didn’t flow. Transitions from video projections to slides seemed unnecessary. There were frequent pauses at the end of the discussion of a slide.

At the end of the presentation, professor Roukes confessed that the slides had been made the night before by a public relations employee who had stayed up all night finishing the job.

While Roukes spoke extemporaneously, he may have been furthering his notes around rather than leaving them at the podium. Still, balancing teaching, cutting-edge research, and lecture giving is no easy task. Roukes did a good job of incorporating some of the most recent findings from his lab.

In another, perhaps more important error, Roukes suggested that he hadn’t thought of all implications of his research. He mentioned that some had predicted catastrophic effects of nanotechnology that simply aren’t running wild. Then, instead of either dismissing these seemingly unusual opinions or giving some other examples, he trailed off, mumbling something to the effect that he hadn’t formed an opinion about the issue.

Nanotechnology research may not be anywhere near as critical as, say, the Manhattan Project, but it was the failure of many scientists on the Project to think about the consequences of their actions that upset many of them, including Richard Feynman, in later years.

While it was unclear whether Roukes had extrapolized the statements about the robots and then had nowhere to go with the thought (thus stumbling over his words) or purposely meant to bring up the subject, he made an blunder of which scientists need to be meticulously aware.

The Hopes (Amidst the Hype) of Nanotechnology was an enjoyable presentation. The next in the Watson Lecture series is entitled “Imaging the Infant Universe” to be presented by Dr. Anthony Readhead on February 21 at 8 p.m. in Beckman Auditorium.

And he mowed for 400 yards along the hills that lead into Scranton, Pennsylvania.
Present: James, Dave, Kanna, Tom, Greg, Laura, Melissa, Maria, Geoff Smith, past and future Big T people.

- Meeting begins on the 655589054th vibration of Cs at 10:03 PM.
- Geoff asks the BOD for money for the Caltech College Bowl Team (Geoff also presents us with a list of signatures for people currently on the Bowl Team). We postulate that the Big T might have some debts from several years ago that remain unpaid, but we actually have no idea why the money is being withheld. The Big T people will talk to administrative people in finance to clear this up.
- Dave mentions that THERE WILL BE AN ELECTION ON MONDAY. VOTE. People from 7 houses are running for various offices. Score.
- James asks that Dave be recognized as the “acting ASCIT President”, and as such should say important things, should run the meeting, and shouldn’t vote.
- Laura talked to Pat in student accounts about the new ASCIT Copier Account. Laura wants ASCIT to material transfer some money into the account to make sure the account doesn’t go into the red for the next Upperclass Director. However, nobody on the BOD believes that this will be a problem.
- Greg inquires about the cost of installations. We believe it’s somewhere around $300. Greg also wants to hold the ASCIT Social Hour on Fridays directly outside the Movies. Greg mentions that he’ll be getting the standard EE Social Hour food.
- The doors close. The Big T people will leave. Entropy, your soul is mine.

Respectfully submitted,
David Rolpea
ASCIT President-like Substance

Dr. Rao Varanasi, Unit Chief, Structures Engineering, Boeing Commercial Airplane Group, Seattle, WA, will be recruiting on campus, Thursday, Feb. 1 & Friday, Feb. 2. Areas of interest are engineering, structures, applied mechanics, vibration and design. Interviewing schedule:

Thursday, Feb 1: Room 13, Student Activities Center 2-5 p.m.
Friday, Feb 2: Room 25, Student Activities Center 1-5 p.m.

Interested students should come to the Career Development Center, 08 Parsons Gates, to leave their resumes, and sign up for a time slot.

---

Dr. Alex Siegel, An Optometric Corp
Dr. Shantana Fisher

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ASCIT Social Hour on Fridays directly outside the Movies. Greg mentions that he’ll be getting the standard EE Social Hour food.

Next Week:

John Bellushi & Dan Akroyd
THE BLUES BROTHERS

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Scott Whitlock, BOD Member

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THE RESEARCH AND DEVELOPMENT

With a running investment of over one-quarter of a billion dollars in research and development, no wonder Oracle is known for breakthrough technology. If you're eager to work with this decade's top graduates on the world's fastest moving products, join us. Our software solutions are changing the way human knowledge is gathered, stored, retrieved and utilized. With record sales of $3 billion and nearly 50% growth in the last year alone, THE INTERNET IS COMPRISING MILLIONS OF INDIVIDUALS AND ORGANIZATIONS THAT OPERATE INDEPENDENTLY.

I'm the Non-Stereotypical Woman!

I'm using a monitor that's supposed to be 15 inches, but it's more like 16.5 inches!

Oracle Corporation, 500 Oracle Parkway, Redwood Shores, CA 94065. E-mail: jobs@oracle.com. Fax: 415-506-1073. For additional information, visit our web site at: http://www.oracle.com/apply/recruiting.html. Equal talent will always get equal opportunity.
The Upperclassman Director at Large shall be an upperclassman at the time of election. The Upperclassman Director at Large is responsible for the management, finances, operation, and maintenance of the ASCIT van and copier. The Directors at Large shall in addition perform other duties as specified by the Board of Directors.

**Note "Money giveaway clause"** - money will only be distributed if it snows 4 inches in the middle of Huntington Gardens while you are reading this.

### ALEXIS JOHNSON

I am going to try and make this short and sweet. I am running for Director at Large because I enjoy being involved. I just finished up my term as BoC Rep, and am currently playing tennis. I was also on the volleyball and soccer teams. On a different note, some might be aware and I guess I am informing everyone else, that I live off-campus. I know that it makes life a bit simpler when the Director at Large lives on-campus. Therefore, if I am elected I will find a place, on campus, that the sign-up for the ASCIT van will be kept. I will now leave you with a poem by my campaign manager, Phillip Rodriguez -

Roses are red
Violets are fuschia
Vote ALEXIS JOHNSON
And I'll give you money **

** Note "Money giveaway clause" - money will only be distributed if it snows 4 inches in the middle of Huntington Gardens while you are reading this.

### SHAY CHINN

I feel I can keep the ASCIT copier functioning a good portion of the time and the ASCIT van running. I hope to automate the sign out for the Van by setting up a page on the Web and I will also take random comments to ASCIT.

### DIRECTOR OF ACADEMIC AFFAIRS

The Director for Academic Affairs shall be chairman of the Educational Policies Committee and be responsible for all other committees formed by the Corporation on academic affairs. He shall be responsible for the production, publication, and distribution of the Course Listings of Undergraduate Education.

### KOHL GILL

Director of Academic Affairs is a challenging position. The duties include making the CLUE and chairing the Academics and Research Committee. I am qualified for these duties because I was on various committees including the ARC as Ricketts house representative, the Academic Policies Committee, and the Curriculum Committee.

"NO" sucks. I hear he's the Mack with the ladies. His name is commonly chanted by women wherever I go. I'm taller than he is. **H** **B** This is NO. I have assumed control of Kohl's statement. So far I have been slandered by him and that bastard Kiran (except for the part about the ladies). A for me is a vote for NO Director of Academic Affairs, NO CLUE, NO ARC, and hence, NO Academics or Research at Caltech.

Just imagine...all Dilbert, all the time.

### ARC SECRETARY

The ARC Secretary records the proceedings of the Academics & Research Committee.

### KIRAN SHEKAR

My name is Kiran Shekar, and I am running for the position of Secretary of the Academics and Research Committee. The responsibilities of the ARC secretary are many, and I would perform these tasks to the best of my ability. My experience includes having served on both the Curriculum and Faculty Advisor committees. Although his official duties are too numerous to name in this limited space (see bee), the ARC Secretary's job is multi-faceted and is of extreme importance to the day-by-day running of Caltech. Nary a decision gets made without the opinion of the ARC and especially its secretary. A vote for me would put a dedicated soul in the position and would ensure the continued prosperity of Caltech, if not the entire free world.

While the competition for this position is fierce, the other candidate (we'll refer to him as 'NO') isn't nearly as qualified for this position (in addition he is ill-tempered and generally not a pleasant guy to be around). However, he would make a good Director of Academic Affairs (a lot better than that bastard Kohl).
FRESHMAN
DIRECTOR AT LARGE

The Freshman Director at Large shall be a freshman at the time of election. The Freshman Director at Large is responsible for the publication of the Undergraduate Research Opportunities Handbook. The Directors at Large shall in addition perform other duties as specified by the Board of Directors.

JAMES BUCKWALTER

Hello, my name is James Buckwalter. Vote for me for freshman director at large. I can take the pain.

KARA SWEDLOW

Hi. My name is Kara Swedlow. You killed my father! PREPARE TO DIE!! Now that I have your attention, I am running for the ASCIT Freshman Director at Large. What qualifies me for this position? Well, I am glad you asked. Most importantly I am a freshman student registered at Caltech. But wait, there is more! The primary duty of the Frosh Director at large is budgeting (err, well, I suppose that they are exciting, yeah that's right) budget meetings. Well, vote wisely!! Vote for me!!

BRETT TOLMAN-HALBERT

When I realized that Caltech was the college for me, I looked forward to experiencing all of the different ways that I could get involved. ASCIT provides many ways for this to happen, and as Freshman Director at Large, I can begin that involvement. Developing the UROH will be the major task, and I will give it my best effort. I put my best effort into many activities throughout high school and produced good results. I am friendly and outgoing, and I am determined in finding ways to get a job done. I interact with different people in each of the houses, so I can better understand the views of the entire undergraduate community. Give me the chance to do this job well.

ASCIT TREASURER

The Treasurer shall receive all money belonging to the Corporation and shall deposit it to the credit of the Corporation in such bank or banks as the Board of Directors shall determine. He shall keep a full account of money expended and received and shall make a report of such account once a term at a regular meeting of the Board of Directors, and at such time as the Board of Directors shall desire. He shall have the Corporation books audited as soon as possible after the close of the previous fiscal year. He shall receive and present to the Board of Directors term and annual reports of all ASCIT publications. He shall have direct charge of all Corporation property.

KRISTIE ARMENTROUT

Hello, my name is Kristie Armentrout. Those of you who know me may have known that I would be running for ASCIT treasurer. As treasurer I can promise diligence in taking care of the books, and in delivering funding checks to clubs, houses, and organizations as soon as possible. Last year I served on both the ASCIT and Lloyd House social teams. As part of the ASCIT Social Team, I gained some experience with how ASCIT operates which made me want to get more involved with ASCIT.

If you have any questions or ideas, please contact me. I can be reached at karmen@ugcs, ext. 1331, or Lloyd 114. :-)

BoC Secretary

The BoC Secretary records the proceedings of the BoC meetings, and assists the Chairman with investigations. Like the Chairman, the secretary has no vote on the committee.

MATT TISCARENO

One of the most important things that makes life at Tech bearable is the Honor System. The trust we have earned from the faculty allows us great flexibility in our work schedules, and our trust for one another allows us to work together in situations where most college students would be engaged in vicious competition. Unfortunately, these benefits are not free. We must work hard to maintain the trust we have earned. This is the responsibility of the Board of Control. So why should I be allowed to do the job of BoC Secretary, besides being able to take minutes and do other secretarial jobs which aren't that hard anyway? For one thing, I realize that serving on the BoC is a difficult, time-consuming, and often thankless task, and I'm not afraid to do it anyway. I also am not the kind of person to quit because it turned out to be harder than I expected. If I begin the job, I promise to finish it.

In recent years, I have found myself to have an ability to see both sides of a controversy, but I will also make efforts to encourage students to adhere to the Honor System in the first place; the fewer cases we have, the happier everyone will be. To prepare myself for the job, I have already had conversations with Ricky Carson (the outgoing BoC Secretary) and Maria Satterwhite (the incoming BoC Chair) concerning preliminary plans to run the BoC for the upcoming year. But in the end, all I can promise is that, if elected, I will do the job of BoC Secretary with all my strength to the best of my ability. Please vote on Monday.
JEANNE WILSON

Seventy-two hours ago, I decided that I was definitely going to run for ASCIT secretary. Now I'm in the embarrassing spot of having to convince you to vote for me.

I could approach this by telling you what a good job I could do (I really could), or how well I can "organize information and coordinate it with the people who need it." (I like that line. It's from the last statement I trashed.) I could comment on the leader-like positions I've held (Blacker VP and Social Team) or the other campus stuff I've been involved in (ASCIT Movie Team, Avery Committee, BUSAC).

I could tell you how much I care, but I don't.

I could tell you many more interesting things, like how I worked two summers as a secretary and thus learned the greatest secret of the universe (sorry, it won't fit in the parentheses).

I could promise to extort money from you. It's not my style, but I've already seen it win two elections in Blacker this month.

I could tell you I have secret supernatural powers, but then they wouldn't be a secret anymore.

What it all comes down to is a few simple facts (that other stuff was just so you wouldn't think I'm a flake because my statement's too short.) I want to be ASCIT Secretary. I think it would be fun.

And since this isn't a house election and no room picks are involved, I can tell you many more interesting things (that other stuff was just so you wouldn't think I'm a flake because my statement's too short.) I want to be ASCIT Secretary. I think it would be fun.

And since this isn't a house election and no room picks are involved, I can do this job well. Please, don't forget to vote.

GRACE YANG

My name is Grace Yang and I am running for ASCIT Secretary. The reason I want this position is so that I can participate in the organization of student activities. The position of secretary calls for diligence, organization and dedication. I believe that I have all these qualifications.

I have already performed some official duties, such as ASCIT Athletics manager (yes, the varsity jackets will be here early next week), Ruddock House's Athletics Manager and high school government. I organized the Frosh Nite Out last year and I am currently organizing OPI.

I truly feel that I am the most qualified for this job. Not only do I have the ability to perform the job well, I have the desire to serve the Caltech community. For those who know me, they know that I care very much about the state of the campus. So, on Monday, please vote for me, Grace Yang, as your next secretary.

ATHLETIC MANAGER

The Athletic manager shall be chairman of the Athletic committee. He shall procure all athletic awards for the Corporation. A group of Corporation members may hold this position.

There are no candidates for Ath Man. However, rumor has it that Wei-Hwa Huang is courting write-in votes.

-Eds

THE ELECTIONS FOR THESE ASCIT OFFICES

FRESHMAN DIRECTOR AT LARGE
UPPERCLASSMAN DIRECTOR AT LARGE
DIRECTOR OF ACADEMIC AFFAIRS
ARC SECRETARY
ASCIT TREASURER
BOC SECRETARY
ASCIT SECRETARY
ATHLETIC MANAGER
ASCIT SOCIAL DIRECTOR
ATHLETIC MANAGER
IHC CHAIRMAN
TECH EDITOR

WILL OCCUR ON
MONDAY FROM
10 A.M. TO 10 P.M.
Leonard Sung

One of the reasons why I had decided to attend Caltech may have been a short conversation with ex-IHC chairman/Rud­dock president Stanley Grant III as a HIS senior. I was interested in the entire "House" system, so he told me about the rudimentary differences of each House and the problems they (IHC) were fac­ing (Dubney fire several years ago and the Interhouse parties). We talked a little bit more about dealing with those problems, and I just thought that it was fascinating to see how much power the students have — in the form of the BOC, BOD and IHC. During the time I have been here, I feel that I have learned quite extensively about the House system and the student govern­ment. Now, I am willing to serve as the IHC Chairman. If I am elected as the IHC Chairman, my goals are to preserve, defend, and improve the I-house system. Similar to last year, this race also lacks a former House president, but I feel that after serving as Lloyd House's Athletic Manager, I am qualified in fulfilling the duties of the job. Even though I may not have experienced the bureaucracy a House president usually goes through, I became involved in getting to know many people from all of the Houses. I respect every student who, for whatever reason he or she has, decided to attend this school. I think that one has to be very brave (or a little crazy) to go here, but that is what makes each of us unique. I'm very fortunate to be involved in many activities including research, athletics, music, arts, literature, Lloyd ExComm, or whatever and these various activities have given me the opportunity to mingle with a variety of people. Nevertheless, I don't generalize people in one group or House, but perceive each House as a body of unique individuals. Thus, I know almost all of the presidents and the prospective candidates and if I'm given the opportu­nity, I believe that we'll work as an effective group. I don't have any experience on ASCIT, but I went to freshmen camp this year as a kitchen coordinator and last year, I coordinated prefresh weekend for my House. I trust in my abilities that I will be able to learn and become an effective IHC chair­man. Even though, I don't have an extensive resume of my participation in House/Student government, I hope you would know who I am and what I can do. Out of all the offices in the Student gov­ernment, this is the role that fit me the best. Thank you for reading this. And by the way — you don't win friends with salad. les@astro.caltech.edu.

David Bacon

I'm almost as goofy looking as the current IHC chair — I'm in the ASCIT presi­dents lab partner-so if he ever gives me any hunk I can sabotage his lab results.

My last name is a food item, so if you get angry at me there are a plethora of names you can make up to taunt me with.

My grandfather went here, so I know about precedents so old that my grandfather actually played on a Cham­pionship Tech football team. (Yeah...that's right, I said football!)

My hero is Dan Quayle, and I can spill potato. Fresh Camp, Junior Class Secretary/Treasurer, Ruddock House Vice President, Core Curriculum Com­mittee, Academics and Research Commit­tee, Tennis, Golf, Interhouse sports — I love to participate. 'nuf said.

The Editor of The California Tech is responsible for the selection and preparation of all content of The California Tech exclusive of advertising material. He is responsible for meeting deadlines agreed upon with printers or other contractors. His responsibilities terminate after the publication is printed.

The Gang of Four (Five?)

I, Gumbly Timmoner, of sound mind and body, hereby declare my candidacy for Tech Editor.

I am much superior to those running against me because I am cooler than they. Lacking the ability to stretch themselves into a plethora of sexual positions (not to men­tion the lack of a rubic side) running (I'm not kidding) will render the OTHER Tech Editor candi­dates much less effective (for their lack of stress relieving accessories).

And Lastly...I disagree with the previous administration’s promoting of the lame comic strip know as Dildir. The little known "Gumbly" comic strip is vastly supe­rior to any of the currently "popular" strips. Apparently the latest "rage" in comic strip "taste" is for strips known as "humorus" or even "furry." I find this "trend" to be in­dicative of the lack of "education" provided by the schools of this "nation." Perhaps we can change "this" trend by promoting more religion in "the" schools. Putting fear of "god" in students will inevitably "result" in the "increase" of SAT scores and the "like."
Every morning when I get up, I jump out of bed within a minute. The morning is such an exciting time. I think of all the wonderful things that can happen in a day. I think about the work I will accomplish to help me towards my goals. Life at Caltech is filled with opportunity. I love it here.

Conversely, I have been told by many people that they take almost an hour to crawl out of bed. When I see these people leaving their rooms in the morning, they grumble about how much work they have to do, how little sleep they had and how difficult their life is. They aren’t enjoying life.

Why is it that some people love the Caltech experience and others hate it? We all have the same hardships: not enough sleep, too much homework and too little free time. Is there one crucial attribute that makes the difference? One answer is attitude.

Your attitude determines your reality. Your brain filters the tremendous amount of information sent to it and selectively finds reasons to support that conclusion.

Conversely, if you face the future believing that nothing can stop you, nothing will.

If you face the future believing that nothing can stop you, nothing will.

You face a setback, you believe that you are going to fail, and your brain will selectively find reasons to support that conclusion.

There is another “in between” attitude towards success: the belief that success comes to those who are lucky. A poll taken a couple of years ago found that about half of Americans believe that luck is the tremendous amount of information sent to it and selective- ly finds reasons to support that conclusion.

The effect is like wearing a pair of glasses so that you see your experiences in the way you expect to see them. Whether or not you enjoy life is entirely up to what type of glasses you are wearing. In other words, whether or not you enjoy life is up to you alone. Similarly, if you believe Caltech is a difficult place to work, that is exactly what you will find.

What does this have to do with your success and your future? One of the major factors that will determine whether or not you succeed is your attitude. If you approach life believing that you have almost no chance to succeed, you won’t. Every time you face a setback, you believe that you are going to fail, and your brain will selectively find reasons to support that conclusion.

However, if you aren’t prepared to act on them, the opportunities are worthless. I define luck to be when the unexpected happens to you, and is now the company we know today. Learn from Joe Coulombe. Attitude is everything when facing setbacks.

Believe in yourself and your ability to succeed. If you don’t, you will never get anywhere on your path to your dreams. Always remember that happiness is an integral part of success. To be happy, you need a positive outlook on life. Look for the good things in your work, other people and yourself. If you look, you will see all the wonderful things around you and you will smile — like I do.

**NextTime:** Preparing for Career Day...

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Occidental Edges Out Caltech Tennis Teams

by Karen Nelson
and Bill Rowe

The Caltech tennis teams opened their seasons with a combined men's and women's match against Occidental on January 24th. Despite some strong showings, Caltech fell to the Tigers 6-7. The contest consisted of four women's singles matches, four men's singles matches, one women's doubles match, one men's doubles match, and three mixed doubles matches.

Sophomore Alexis Johnson played very well in the number one singles position, defeating her opponent 7-5, 6-1. Junior Lena Petrovic played a tough second set at number two singles but couldn't maintain her momentum in the third set, falling 6-4, 1-6, 6-0. Freshman Amy Chang-Chien made her debut at number four singles, coming out strong and taking the first set 6-4. Her opponent battled back though and took the next two sets 6-5, 6-3. Chang-Chien teamed up with first year player Sophomore Grace Yang in the women's doubles match. Caltech took control early with a 4-1 first set lead. Occidental regrouped however and evened the score with a service break. Occidental pulled out the first set and maintained control throughout the second set to close out the match 7-6, 6-2. Sophomore Ronak Bhatt, senior Amir Alegheband, sophomore Jason Jenkins, and sophomore Ben Miller (numbers 1, 2, 3 and 4 respectively) all won their singles matches. Bhatt and Jenkins teamed up to capture the men's doubles match as well. Bhatt won a close three set match 6-1, 5-7, 6-2, showing great mental toughness. The men's doubles match also went to three sets. Bhatt and Jenkins lost the first set 1-6 only to comeback strong winning the second set 6-4. They closed out the match with a decisive third set score of 6-0. Occidental captured all three mixed doubles matches. Alegheband and Johnson lost at number one, 4-6, 1-6. Miller and Petrovic fell 4-6, 1-6 as well at number two. Freshman Charles Kim and senior Laura Verhoff gave their opponents a strong fight at number three, falling 5-7, 4-6.

The California Tech

SCOREBOARD
by Angie Bealko

Wednesday Jan. 24th
• Men's & Women's Mixed Tennis LOST 6-7 Occidental
• Men's Basketball LOST 39-68 Claremont

Saturday Jan. 27th
• Baseball WON 6-1 DodgerTown
• Men's Tennis LOST 7-8 DodgerTown
• Swimming LOST 8-9 Redlands
• Men's Basketball LOST 41-92 Pomona

Monday Jan. 29th
• Golf WON BY FORFEIT Whittier

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EURLAPASSES
Baseball Splits with DodgeTown in Double-Header

by Angie Bralke

This past Saturday, the var¬
sity baseball team opened its season at home with a double¬
header against DodgeTown, a club team from Los Angeles. Despite batting hard in the sec¬
ond game, the Beavers lost 7-3, splitting the series with their op¬
oponents.

The first game was domi¬
nated by the Beavers, as they clinched the win with a score of 6-1.

Senior Jon Wesselmann pitched the entire first game, throwing less than 85 balls across the plate in seven innings. He faced only four batters in the first inning, including California State Senator Tom Hayden, who played right field for Dodgegerton.

The Beavers scored three in the first as junior Roopesh Doshi and sophomore Rob Tryon both

talled RBIs, allowing freshman Matt Dawson and sophomore Jon Allen to score. Wesselmann also scored after the opposing pitcher threw a wild pitch.

Wesselmann registered only six pitches in the second inning, striking fear in Caltech's oppo¬nent. Doshi earned another RBI in the third inning as he brought

Wesselmann home making the score 4-0. Wesselmann topped his second inning accomplish¬ment by throwing only five pitches in the fourth, and striking out three out of the four bat¬
ters in the fifth.

The highlight of the game came when senior Gene Farnes hit a home run in the 6th, bring¬

ing home sophomore Jason Barnes in the process and run¬ning the score up to 6-0. Dodgegerton managed to cross the plate once, tallying a run in the 7th inning off of a wild pitch.

The strongest hitting effort came from Wesselmann who tall¬
lied a single in each of his three at bats. Dawson, Doshi, Tryon, and senior Adil Karim all hit their way onto first base once for the Beavers. Karim did an excel¬lent job behind the plate keep¬ing the runners uneasy at the bases throughout the game. Freshman Grant Williams made the defensive play of the game at left field, diving and rolling for a long fly ball.
The California Tech
Cafeteria 49-58 SAC
Pasadena, California

February 2, 1996

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