

## Caltech Professors Bhattacharya, Ortiz win ASME medals



(From left) ASME medals have been awarded to Kaushik Bhattacharya, Howell N. Tyson, Sr., Professor of Mechanics and professor of materials science, and Michael Ortiz, Frank and Ora Lee Marble Professor of Aeronautics and Mechanical Engineering. -http://caltech.edu

#### **NEHALY SHAH** Editor-in-Chief

This article was originally published online at caltech.edu.

Kaushik Bhattacharya, Caltech's Howell N. Tyson, Sr., Professor of Mechanics and professor of materials science, has received the Warner T. Koiter Medal from the American Society of Mechanical Engineers (ASME), and Michael Ortiz, Frank and Ora Lee Marble Professor Aeronautics of and Mechanical Engineering, has received the society's Timoshenko Medal.

Established in 1996, the Warner T. Koiter Medal recognizes distinguished contributions to the field of solid mechanics. The award

honors the late Warner T. Koiter, professor of applied mechanics at Delft University of Technology, for his fundamental work in nonlinear stability of structures, diligence in the effective application of these theories, international leadership in mechanics, and effectiveness as a teacher and researcher. This year, Bhattacharya, who is also the executive officer for mechanical and civil engineering in the Division of Engineering and Applied Science, received the medal "for the development of novel, rigorous, and predictive methods for the multi-scale behavior of modern engineering materials at scales ranging from the sub-atomic to the polycrystal, with special focus on multi-functional materials." Bhattacharya's research group studies the mechanical behavior of solids and uses theory to guide the development of new materials.

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## News briefs from around the globe

A brief list of events from the past week, compiled by the editors

#### More aid to be sent to Syrians trapped in Madaya

<u>20,000</u> estimated to be trapped in town since March; Britain to send aid lorries with one month's supply of food, medicine and blankets [<u>BBC</u>]

#### El Chapo caught after escape from prison

58-year-old drug lord will be extradited from Mexico to the U.S. [BBC]

#### New camps for migrants to open in northern France

<u>2,500</u>-capacity camp expected to be approved in efforts to move migrants from overflowing camps to new locations [<u>BBC</u>]

#### More residents leaving Porter Ranch, CA, after gas leak

1,600 moved so far to escape dangers of methane gas leak [TIME]

Students get youth excited about science through the Pasadena LEARNs program





**Spain's Princess Cristina charged in embezzlement scam** <u>8 years in jail possible for her and 17 accomplices if found guilty of fraud [BBC]</u>

#### Revered musician David Bowie dies after battle with cancer

69-year old was in pop music industry for 40 years, fought cancer for 18 months [CNN]

#### Doctors without Borders hospital hit in Yemen

5 killed, 10 injured in latest bombing affecting the non-profit group's hospitals [CNN]

Photos Courtesy of Emil Khabiboulline FULL STORY ON PAGE 4

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#### Z january 11, 2016

## Caltech Y Column: Upcoming news and events

The Caltech Y Column serves to inform students of upcoming events and volunteer opportunities. The list is compiled by Neera Shah from information given by the Caltech

Y and its student leaders. Founded by students in 1916, the Y was organized to provide extracurricular activities planned and implemented by students as an opportunity to learn leadership skills and discover themselves. The mission of today's Y remains the same-to provide opportunities that will prepare students to become engaged, responsible citizens of the world. The Y seeks to broaden students' worldviews, raise social, ethical, and cultural awareness through teamwork, community engagement, activism, and leadership. More information about the Caltech Y and its programs can be found at https://caltechy.org. The office is located at 505 S. Wilson Avenue.

Ongoing and past programs hosted by the Caltech Y:

Alternative Spring Breaks: Costa Rica, New York, Yosemite, San Diego, San Francisco

Make-A-Difference Day: Hillsides Home for Children, LA County Arboretum and Botanic Garden, Children's Hospital Los Angeles (Coachart), Eaton Canyon, Lifeline for Pets

Explore LA: Lakers game, Next to Normal musical, Norton Simon Museum trip

RISE Tutoring program (an afterschool math and science-focused tutoring program that serves public school students between grades 8 and 12)

Upcoming Events

#### 1. The Patrick Hummel and Harry Gray Travel Fund

The Caltech Y is very pleased to announce the creation of the Patrick Hummel and

Harry Gray Travel Fund, named in honor of Caltech alumnus Patrick Hummel (BS, MS 06) and Harry Gray, Arnold О. Beckman Professor of Chemistry and Founding Director of the Beckman Institute. The endowed fund was established as a joint gift from the Hummel Family and Shirley and Harry Gray to support undergraduate travel opportunities that promote professional leadership and development and broadens students perspective as engaged, responsible citizens of the world. will Grants be awarded to support: 1. Travel to academic conferences for the purpose of presenting papers or actively participating in workshops, symposia 2. Travel to professional

conferences focused on developing students leadership skills

3. Travel to conferences/meetings that support the increased participation and impact of underrepresented groups in STEM fields

Undergraduate students may apply for a grant in the range of \$500-\$1,000 for domestic travel and \$1,000-\$2,000 for international travel. The number of awards granted per funding cycle will vary based on the number of applications received and the amount of funds requested.

Deadline for proposal is noon on Wednesday, January 13, 2016. Proposal guidelines and more info available online. For more information, contact Portia Harris at pbharris@caltech.edu.

#### 2. Rise Tutoring Program

Monday - Thursday | 4:00 - 6:00 PM | Starting January 6th | Winnett

The Caltech Y Rise Program is currently accepting new tutors for the winter term. The Rise Program is an afterschool math and science-focused tutoring program that serves public school students between grades 8 and 12 who are struggling in math and science (receiving a C+ or below in either subject). The tutoring takes place on the Caltech campus Monday-Thursday from 4pm-6pm. Tutors are matched with 1-2 students and will ideally work with the same student for the whole year. Tutors commit to 1-2 days per week for at least 2 terms out of the year. Schedule changes can be accommodated throughout the year. This is a great way to volunteer without having to leave campus. For more information about the program and to apply please visit our website at: https:// caltechy.org/programs\_services/tutoring/ Resources/index.php.

#### 3. Pasadena LEARNS

Friday | 3:00 - 5:00pm | Madison and Jackson Elementary School | Pasadena

Come volunteer at Madison and Jackson School! Elementary We are partnered with the Pasadena LEARNs program and work with their Science Olympiad regular team or do tutoring along with occasional hands-on science experiments. Transportation is provided. For more information and to RSVP, contact vkkumar@ caltech.edu.

## ASME medals awarded to two Caltech professors

#### Continued from page 1

"Our challenge is not to shape the material to get the function we want, but how we create a specific material that already possesses the function we want. We are in fact merging both material and machine—and that is absolutely exciting!" says Bhattacharya.

The Timoshenko Medal, established in 1957, is given to recognize contributions to the field of applied mechanics. This award commemorates the late Stephen P. Timoshenko's contributions to applied mechanics as an author and a teacher. Timoshenko is often revered as the "father of mechanical applied mechanics" and worked at the Kiev Polytechnic Institute, St. Petersburg Polytechnic Institute, Ways

Communication of Institute, University of Michigan, and Stanford University. Ortiz was honored "for his seminal, groundbreaking and remarkably creative contributions" that resulted in the creation of new methods and models for the field of solid mechanics.

Ortiz views his research as a "bridge between fundamental science and industry," focusing on realworld applications. His research group is interested in "understanding and modeling the behavior of materials and structures across length and time scales" and in "understanding the limits of usability of materials," according to his website.

"The recognition of one's peers is the sweetest thing of all in our line of business, and it is one of the main things that keep us going in our careers. To say that I am deeply moved and honored by this award is an understatement, I am actually tickled pink," says Ortiz.

Bhattacharya and Ortiz received the medals during the 2015 International Mechanical Engineering Congress and Exposition, held in Houston, Texas, in November.



#### -http://caltech.edu

## Caltechlive! FRIDAY, JANUARY 15, 2016/7 PM Garry Krinsky Toying with Science







The Caltech Y is offering a new scholarship in honor of Caltech alumnus Patrick Hummel (top) and Arnold O. Beckman Professor of Chemistry Harry Gray.

Photos Courtesy of Caltech Y

A fast-paced program that combines circus skills, mime, original music and audience involvement in exploration of scientific principles.

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# OPINION

JANUARY 11, 2016 3

# Techers, get out and vote! Life is an XY problem

#### SEAN MCKENNA Contributing Writer

Primary season is coming up, meaning the 2016 presidential race is in full swing. Candidates from each party compete against members of their own party to gain support in early polling of states such as Iowa, New Hampshire, South Carolina and Nevada. For any candidate, success in these states can convince donors to contribute to the candidate's campaign and build momentum, thus gaining ground for the party's official nominating vote in the summer. State-by-state primary voting takes two different forms: caucuses and primary elections. Voters will caucus in Iowa on Feb. 1, and New Hampshire voters cast primary ballots on Feb. 9. In a caucus, voters from a particular precinct gather in a community meeting place and decide which candidate their precinct wants to nominate. Since this all takes place in person, there is no way to caucus absentee. However, college students from states with primary elections can

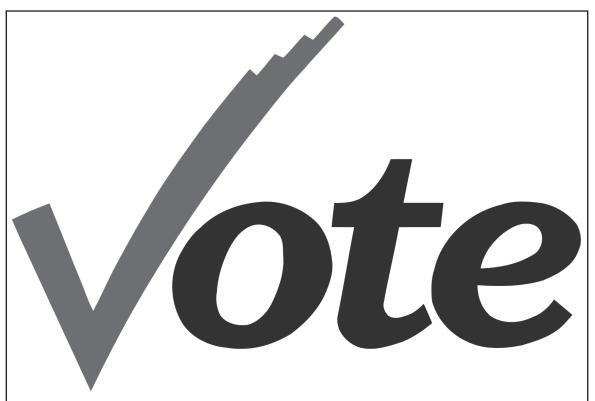
take participate from the comfort of their dorm rooms through the use of vote-by-mail (also called absentee) ballots. Unfortunately, the ease of getting an absentee ballot varies from state to state, so there is not a one-size-fits-all approach for obtaining an absentee ballot. I've included instructions below on how to register to vote by mail in California:

1) You must be registered to vote in California before you can request a vote-by-mail ballot. Go to registertovote.ca.gov to register. You don't need to have a California driver's license, but the process will be quicker if you do. You must register at least 15 days before an election if you wish to vote in it. For California's 2016 presidential primary, which is on June 7, you must be registered by May 23.

2) Your county elections board will send a sample ballot to your registered address before any election that takes place. Attached to this sample ballot will be an application to receive a vote-bymail ballot. You must submit this application at least 7 days before an election, so it must be complete by May 31 to be eligible for California's 2016 presidential primary.

3) If you don't have access to your sample ballot because it's mailed to your home address, you can also fill out the vote-by-mail application on the Internet at www.sos.ca.gov/elections/voterregistration/vote-mail/ and send it to the election office of the county you're registered in.

Now is the time to make your opinions known! So, if you're hoping to see Ted Cruz'in his way to victory, if you're feelin' the Bern, if John makes you Kasich to your stomach, or if you find the idea of another Clinton presidency to be Hillary-ously great, make your voice heard! And even if you have no strong opinion of any of the aforementioned candidates, at least think of the primaries as an opportunity to express your discontent with Donald Trump.



-http://commons.wikimedia.org/

#### **KSHITIJ GROVER** Contributing Writer

I have been thinking a lot about the XY problem lately. Now, I know what you're thinking. What would programmers know about life, and how would they possibly have any insight into its problems? Since when is Meta Stack Exchange a philosophy site? But hold on a second...What is the XY problem?

John, an 8-year-old boy, is excitedly trying to cross a river, and needs to step on 11 stones to get from one side to another. Now, like any overzealous young child, John gets to the fifth stone without looking forward. Here, he realizes that the next stone isn't quite afloat and that if he steps on it he will get all muddy in the river. He also happens to be wearing his newest pair of shorts and would hate to get dirty. John yells for help to his brother, who's taking a paddleboard across: Hey, Quentin, how do I patch up this stone?

Quentin, of course, being a whole year older at 9 and an avid reader of Stack Exchange (only the meta sites!), realizes that John has encountered the XY problem. Let's say for now that Quentin closes John's question as off-topic. He was never very good IRL.

Contrived metaphors aside...

Instead of asking Quentin how to cross the river, John asked him how to complete a part of his own path. Now, classically, the XY problem is simply the issue that comes from asking about an attempted solution rather than the real problem at hand. But let's step out of the framing of the problem as a question and consider the underlying mindset. The XY problem is really an issue of tunneling. Instead of zooming out to the overall issue, it's the mistake of focus. Focus is a problem you struggle with more than you think.

I don't have the XY problem... I can think of two cases here: (1) You're delusional

(2) You're victim to the XY problem nearly every day.

My point is that this isn't about a couple questions, but rather about how humans tend to think. Let's consider a scenario:

How do I wake up earlier in the morning? could translate to Why am I sleeping late? which translates to How do I mitigate the stress I have at work?

We could go on, but I wouldn't want to do all the work for you. You get the idea.

Well, you promised me commentary on life...

Let's generalize.

What's the big question/ goal in life? Perhaps it's What is necessary for me to be happy? Or, for some How do I make a meaningful impact on others? These are genuine questions that most people strive to answer. It's also very easy to lose sight of them in favor of How can I pass this job interview?, How do I earn enough money to get a new Mercedes?, or Where can I seize an opportunity to be respected by my co-workers?

Day to day, we think that these questions are a good proxy for the first ones I mentioned. The core of the problem is that they're not. They're distractions. Now, I'm not saying these things aren't important. They're simply much less important than you'd have yourself believe.

#### So what?

You're not stuck with the XY problem (at least in a catastrophic way). In fact, the folks over at Meta Stack Overflow have already given some phenomenal advice: *Ask "Why?" five times*.

Is it that simple? Perhaps it won't solve the problem, but being a little skeptical of yourself never hurts.

For more of Kshitij's writing, check out his blog at http:// medium.com/@kshithappens.

### JOIN THE CALIFORNIA TECH STAFF!

Looking for something exciting to get involved in this new year? We are looking for more contributors!

We accept reviews, opinion pieces, research, news stories, comics and more!

Email tech@caltech.edu with questions.

# FEATURE

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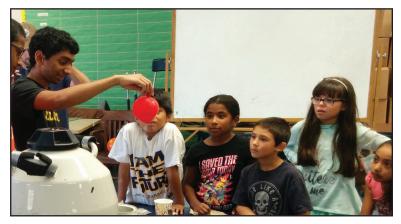
## Caltech students mentor Science Olympiad teams through Pasadena LEARNs afterschool program

#### **EMIL KHABIBOULLINE** Contributing Writer

We are a group of Caltech students that go to local elementary schools to tutor the kids, mentor their Science Olympiad teams, and inspire them through science demos. While we are now partnered with the Pasadena LEARNs afterschool program and supported by the Caltech Y, the Caltech program was founded in 2013 by a group of three undergrads and we still retain that studentdriven spirit. Every volunteer decides what part of the program they like to participate in the most and has the flexibility to make it better. Tutoring is one-on-one or one-on-two in a subject that the kids are struggling with, and tutors typically keep meeting with the

same kids. Mentoring for Science Olympiad is more like leading a classroom, where the topic every week is a new event from the official lineup, like designing a container to protect a dropped egg. Science demos happen about once a month and are the most unpredictable. We try first to get the kids excited about science, and then the learning comes naturally. No matter the activity, being around the kids is really fun and fulfilling. They are always enthusiastic and their excitement is contagious. By now, we have expanded to three elementary schools, going every Friday from 3 to 5 p.m.

If you would like to join us, contact vkkumar@caltech.edu and then see you Friday!





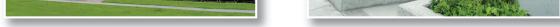
Photos Courtesy of Emil Khabiboulline

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# SPORTS

## Men's basketball tops SCIAC standings with win at Oxy

#### **GOCALTECH.COM** Actual Sports Content Editor

LOS ANGELES (Jan. 9, 2016) -An already-historic season became that much more so as the Caltech men's basketball team topped Occidental College, 62-48, on the road to take sole possession of first place in the SCIAC on Saturday night.

Squaring off as two of three teams tied atop the conference standings at 2-0, the Beavers outshot the Tigers, 41 to 31 percent from the field, and posted a +8 rebound margin to match the best start to conference play in program history, which came in the 1953-54 title-winning season. Caltech improves to 5-7 overall and a perfect 3-0 in the SCIAC this season, while the Tigers drop to 7-4 and fall into a three-way tie for third place at 2-1.

"We're all glad we can be a part of this, 3-0 and leading the conference - we're making people proud," Head Coach Dr. Oliver Eslinger said. "Those are the outcomes of really hard work, from the players every day in practice to the assistants coming up with great ideas and everything being put into action. We have such awesome fans too - another really great crowd,

and on the road, that provided us with a big boost. Three-game weeks are tough – they helped us

through it." T h e Beavers have now their won last four games against SCIAC opponents, including the seasonopener at Oxy which had not happened

since 1944-45- and are

last February.

effort," Eslinger said. "We executed our schemes and were all locked in. Big credit to both our starters and reinforcements - every single person on this team does the work in practice needed to prepare us for each game."

Spencer Levy drilled two threepointers to go up 12-4 over the opening seven minutes, but

Caltech outscored the hosts by 22 over the next 33 minutes to record the decisive victory. Sophomore



Hehe. Just look at that face.

7-4 over their past 11 dating back to

"Once again, a terrific team

Oxy gained the early edge as

David Kawashima knocked down

Photo Courtesy of Bob Paz

his fourth consecutive three-point attempt in as many games to key a run of 14 unanswered points over a six-minute span.

The Tigers recovered to tie the game at 18-18, but junior Nasser Al-Rayes came up with an oldfashioned three-point play to stake the Beavers to a 21-18 edge with 1:46 left in the half. That margin held as the teams traded baskets until halftime, when Caltech led 25-22.

"We wanted to win the first half tonight, so we hit one of our goals there," Eslinger said.

Oxy would net the first points of the second half to pull within one, but senior Kc Emezie earned a trip to the line and hit both free throws before dishing to junior Lawrence Lee in the corner, who nailed a three to extend the margin to six at 30-24. The hosts made one final push to get back into the game, clawing back to a one-basket game at 32-30 with 14:45 remaining, before Caltech took complete control.

"Once Kc started to get going, we saw that look in his eyes and it was his time," Eslinger said.

Another three-point play from Al-Rayes outpaced a jumper from Oxy and the Beavers were off to the races, with Emezie rolling in a pair of extremely difficult layups to take the margin to nine. Al-Rayes and Lee sank two free throws apiece and Al-Rayes then hit a hook shot to extend the lead to double digits for the first time at 48-37 with 5:44 left to play. Emezie soon fought his way to another gravity-defying layup as he hit the deck while moving away from the basket. Junior Ricky Galliani got the ball beyond the arc on the next possession, gave a slight pumpfake as if to pass and pulled up to drain a trey that made it 54-40, immediately followed by another Emezie layup for a 16-point edge at 2:43. Jay Miller would net eight points over the final minutes in a valiant effort for Oxy, but the lead was never in doubt and the Beavers left Eagle Rock at the top of the SCIAC standings.

"We figured it would be a lowscoring game, but our defense has really been powering us all season," Eslinger said. "We know we have to value the ball too. We started off with a couple quick turnovers but after that, committed only six."

Emezie and Al-Rayes led the Beavers with 15 points apiece, with Emezie's coming on 5-for-9 shooting from the field and 1-for-2 from long range. Lee added 12 points, going 2-for-4 from beyond the arc, while Galliani chipped in seven points and a team-high eight rebounds.

"After three games in six days, we're glad to have a day off tomorrow," Eslinger said. "Then we will all get back at it for this next home game."

Eslinger and the Beavers will look to maintain their top billing as they host defending tri-champion Claremont-Mudd-Scripps Colleges (5-6, 0-3) on Wednesday, Jan. 13 at 7:30 p.m.

### Men's basketball rallies from Lewis sets double-19-point deficit to top Cal Lu double record

#### **GOCALTECH.COM** Actual Sports Content Editor

THOUSAND OAKS, Calif. (Jan. 6, 2016) – The Caltech men's basketball team rallied from a 16-point halftime and game-high 19-point deficit to defeat defending Lutheran tri-champion Cal University, 70-66, in Thousand Oaks on Wednesday night.

An incredible team display of mental determination fueled the Beavers to shoot an absurd 63 percent from the field, 80 percent from long range and 92 percent on free throws while posting a +12 rebound margin in the second half to steal their first road SCIAC victory since 1979-80, which came against the Gregg Popovich-led Pomona-Pitzer Sagehens. "Our performance on each side of the ball in the second half was thrilling to watch," Head Coach Dr. Oliver Eslinger said. "We weren't playing with the energy and effort that makes us who we are in the first half, but there couldn't have been a starker contrast to the second half. We regrouped and got confident - we looked at it as a new half, a new game." The Beavers outshot CLU 53-40 percent from the field and narrowly edged out the hosts from beyond the arc (56-50 percent) and at the charity stripe (83-80 percent). Caltech also posted a +17 rebound margin and blocked seven shots to overcome a 21-10 disadvantage in turnovers.

Caltech won the opening tip and kicked off the scoring with a jumper from junior Lawrence Lee, but CLU quickly turned the tables with seven unanswered points to lead by five after the first two minutes. The hosts made it a sixpoint game soon after, but junior David LeBaron clawed the Beavers back within two at 14-12 on a nice post move and dish to junior Nasser Al-Rayes.

Things began to get out of hand as CLU continued to force turnovers and knock down threepointers, eventually building a 16-point lead at 41-25 by halftime thanks to 14 Beavers turnovers. However, Caltech stormed back immediately out of the break. Junior Ricky Galliani began the historic rally with a dagger threepointer, after which LeBaron and Lee hit a layup and pair of free throws, respectively, each to make it an 11-point game. LeBaron alternated layups with Al-Rayes to pull within a basket at the 11:59 mark. As the Beavers held CLU without a basket for nearly eight full minutes, Lee nailed a triple to tie the game at 45-45 with 10:53 left to play and suddenly it was a whole new ballgame. The Kingsmen finally found their shooting stroke again, stretching the lead back out to six at 51-45 and looking set to regain control, but Caltech refused to give in, quickly earning eight points to tie the game at 53-53.

After trading threes with CLU, Caltech finally took its first lead of the game with 2:54 left on the clock as LeBaron grabbed an offensive rebound and laid it in to tie the game at 60-60 before hitting a jump shot to make it 62-60. A higharching three-pointer from Cahill gave Caltech a five-point lead with 2:05 remaining.

Caltech found itself with the ball and a three-point lead with 58 seconds left to play. After a missed shot and offensive rebound, Galliani was fouled, sending him to the line with 33 seconds to go, and he knocked down both to extend the lead back to five at 67-62.

#### **GOCALTECH.COM**

Actual Sports Content Editor

PASADENA, Calif. (Jan. 7, 2016) – Junior Kate Lewis claimed the program record for career double-doubles, posting her fifth of the season and 18th of her career as Caltech women's basketball fell to the University of Redlands, 58-35, on Thursday night.

Redlands held a 10-point lead by halftime and ran past a winded Beavers squad in the second half to improve to 5-6 overall and 2-0 in the SCIAC, while Caltech drops to 2-9 (0-2).

Senior Stephanie Wong scored

beginning of the second quarter, with neither team able to beat the other over the first five minutes. The Bulldogs broke through with two jumpers to go ahead by 12, but Wong knocked down a threepointer coming out of a Beavers timeout to pull back within single digits, a margin which almost held until a late Redlands jumper made it 24-14 at the half.

Lewis hit a pair of free throws to start the second half and later canceled out a Redlands jumper with a layup to keep it an eight-point game, but the Bulldogs began to pull away slowly. After the visitors went back up by 12. Wong sank

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Wade earned a trip to the line and sank his second chance to pull within four. The Kingsmen then gave the home fans a glimmer of hope, forcing a turnover on the inbounds pass before Wade drilled a trey to bring CLU within one at 67-66 with 17 seconds on the clock. Forced to stop the clock by fouling, CLU sent Al-Rayes to the line and the junior big man calmly hit both to stake Caltech to a threepoint lead. Almost before anyone could realize, Cahill had the ball in his hands, having surreptitiously intercepted the inbounds pass. Needing to hit just one of his two free throw attempts to ice the game, the rookie kept everyone on the edge of their seats with a miss on the first chance, but hit the second to seal the upset victory for the Beavers.

off the opening tip but Redlands another three to trim the deficit to jumped out to a 10-2 lead by the 3:40



Kate Lewis (having thankfully recovered from her explosion last week) had confused opposing Redlands so much by halftime that they wore Linfield uniforms for the duration of the game.

Photo Courtesy of Bob Paz 11 with a trio of

mark. Each team hit a two-pointer Junior Michelle Wong dished and trey in the final two minutes out four assists against just two for a 15-7 Redlands lead at the first turnovers to go with seven points break. An impressive defensive and freshman Madeline Schemel display on both sides marked the blocked two shots.

nine. That would be the last time

the margin sat in single digits, with Caltech hanging as close as 12 with 1:05 left in the third quarter before Redlands took control and cruised to the victory.

Lewis led the Beavers with 13 points and 10 rebounds while Wong chipped in three-pointers.

## ANNOUNCEMENTS JANUARY 11, 2016 THE CALIFORNIA TECH

**ASCIT Minutes** 

Meetings are every Wednesday at 4 pm in SAC 13

#### **ASCIT Board of Directors Meeting**

Minutes for 6 January 2016. Taken by Phillip. Officers Present: Nima, Sean McKenna, Phillip An, Jay Pelekar, Kalyn Chang, Cat Jamshidi, Annie Chen Call to Order: 4:05 pm Guests: Interaxon – club at Caltech and has gotten ASCIT funding for past 3 years

Brainbee - Request \$900

6

- Open to high school students in neuroscience, guest lectures with Caltech professors, will send winner to national competition.
- Will provide lunch for students (\$15 per student) and around 30 students.
- Has \$2000 of other funding. Around 15 techers will be involved.
- Event will take place on Saturday 6<sup>th</sup> in Winnett Lounge.

#### President's Report (Nima):

- Faculty Board meeting on the January 11<sup>th</sup>
- Will speak regarding tuition policy

#### **Officer's Reports:**

- V.P. of Academic Affairs (ARC Chair: Jay):
   Faculty is discussing student workload
- V.P. of Non-Academic Affairs (IHC Chair: Cat):
  - Bectel design is still ongoing
    IHC is meeting with Joe Shepard tomorrow to
  - speak about alcohol policy
     IHC will be voting on transition policy for members
- Director of Operations (Sean):
  - Kalyn and Sean are still ordering lights
  - Lockers are reassigned for new people
- Treasurer (Kalyn):
  - Amazon account got frozen
  - If anyone has pending reimbursements, please email Kalyn at kcchang@caltech.edu
- Social Director (Annie):
  - Will start planning ASCIT formal
  - Midterm ice skating
- Secretary (Phillip):
  - $\circ$  Meeting with Joe Shepard on the 12<sup>th</sup>
  - ASCIT retreat will decide location and activity

If anyone has any questions or concerns about a section of the minutes please email the appropriate officer. We are happy to answer any questions. Meeting Adjourned: 4:34 pm

## VICE PROVOST'S OFFICE HOURS

Vice Provost, Chief Diversity Officer and Professor of English, Cindy Weinstein, offers weekly office hours. These hours are an opportunity for undergraduate, graduate students and postdocs to meet and discuss what they'd like pertaining to the Council on Undergraduate Education, Caltech accreditation, the Staff and Faculty Consultation Center, Student-Faculty Programs, the Center for Teaching, Learning and Outreach, the Caltech Diversity Center and the libraries.

There are four appointments per hour, 15 min. each. Sign up the morning of the office hour in 104 Parsons Gates, Vice Provosts' Offices (x6339).

Winter term hours: 12-1 p.m.

Friday, Jan. 15 Tuesday, Jan. 19 Monday, Jan. 25 Monday, Feb. 1 Tuesday, Feb. 9 Wednesday, Feb 17 Thursday, Feb. 25 Wednesday, Mar. 2 Tuesday, Mar. 8

Caltech Public Events Hiring Ushers

#### The California Tech

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## **REMINDER FROM COUNSELING CENTER:**

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## Meditation Mob

(drop-in mindfulness meditation group)

Meets every Tuesday, 12:00-12:50 p.m.

Bottom floor of Winnett

Flexible hours. No experience needed. Outgoing Personality. Pay Rate: \$15 per hour

### Caltech Students only!!

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The advertising deadline is 5 p.m. Friday; all advertising should be submitted electronically or as camera-ready art, but *The Tech* can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at *tech@caltech.edu*. For subscription information, please send mail to "Subscriptions."

# FEATURE

#### THE CALIFORNIA TECH

## Caltech introduces new bikeshare program for community members



Four bikes will be available for checkout from Sherman Fairchild Library.



JANUARY 11, 2016

Graduate student Zach Erickson is the co-founder of the bikeshare program.

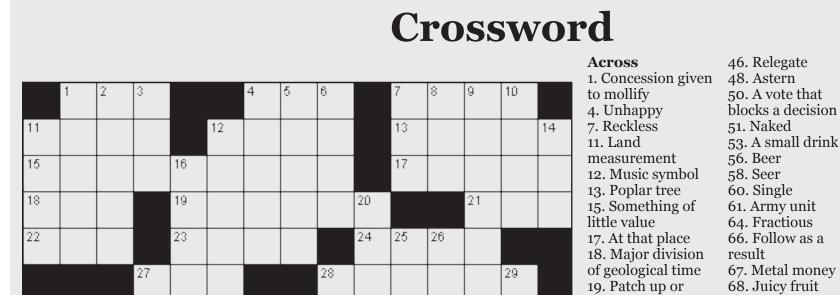
Introducing the Caltech Bikeshare! The Caltech Bikeshare owns four new bicycles and helmets that are free to check out from Sherman Fairchild Library (SFL). The bicycles are Trek hybrids that can be used for both leisure riding and getting a workout. Any member of the Caltech community is welcome to use the bikes.

The bike sizes were picked so that hopefully everybody can have a bike that fits them. Further, the seats are easily adjustable. The bikes are parked at two reserved bike racks outside of SFL — if you have your own bike, please do not park it in the reserved bike racks. The bike loan period is 24 hours, though the bikes can be renewed twice. To check out a bike: 1) go to SFL's circulation desk, 2) sign two forms and pick up the key and a helmet, 3) have

fun and be safe!

If you have questions or comments, please email bikeshare@caltech.edu.

Description and Photos Courtesy of Alex Place



20. In favor of 25. Limb 26. Expeditious 27. Asian plant grown for its seeds and oil 28. Yield 29. Dwell 30. Male title 31. In bed 32. The other way around 34. Part of a church 35. Was seated 37. Elfin 42. Cooking vessel 44. Large longjawed fish 47. Also 49. Three to a vard 51. Nobleman 52. Strong and sharp 53. Solemn 54. Marquetry or parquetry 55. Look searchingly 56. Hotshot 57. Yearn 59. Grains used as food 62. Young dog 63. Understand 65. Pertinent

									1					
30	31	32			33	34	35			36				37
38						39			-		40			
41				42		43			44		45			
	46				47				48	49				
		50			1		51	52				53	54	55
56	57				58	59						60		
61			62	63		64					65			
66						67					68			
	69					70					71			

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22. Square root of a hundred 23. Parts of the Roman calendar 24. Ecstatic 27. Ancient Roman god 28. Cattle pen 30. Rescue 33. Alleviate 36. Design theme 38. Wading bird 39. Tablet of sheet paper 40. Relocate 41. Summarize briefly 43. Stalk 45. Animal hunted or caught for food

renovate

21. Bovine

mammal

69. Yawn 70. Finish 71. Attempt Down 1. Frighten 2. Musical instrument 3. Small vegetable 4. Figure out 5. Book of maps 6. Consider or regard 7. Rodent 8. Residue of a fire 9. A close observer 10. Paladin 11. Assist in wrongdoing 12. Conifer leaf 14. Novel 16. Group of three musicians

# HUMOR

### Paige Turner



1	Answers to the current crossword (page 7)														
		X	Я					N			Π	Р	$\forall$	9	
	R	A	Π	Ы		N		0	0		Ш	Π	S	N	Π
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					_	$\forall$			Ш		0	Μ	Ξ		

The California Tech Caltech 40-58 Pasadena, CA 91125

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-	M	0	О			Ъ	Μ	A	$\wedge$	Π	Я		A	Я	
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	N	Π	Ь	S	A		П	$\bot$	0	N		Π	Я	О	$\forall$
		Н	S	A	Я			A	S			Ъ	0	S	

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