Caltech Y’s Explore LA event a success in Little Tokyo

PHYSICIST MATT TAYLOR stirs up “Shirtstorm” over objectification of women

HANNAH F. GERLING-DUNSMORE Contributing Writer

On Nov. 12, the European Space Agency (ESA) made history with the first controlled landing on a comet, as the Philae lander touched down onto Comet 67P (67P). About 480 million km from Earth, Philae detached from the Rosetta spacecraft it was launched with in March 2004 and landed on 67P a total of three times; the first two attempts were bounces. Even though its harpoon, designed to anchor the lander to the comet, did not fire, Philae remained on the comet and successfully collected desired data. Due to the landing difficulties, Philae ended up approximately one km from its intended landing site, which put it in the shadow of a cliff. Subsequently, Philae received insufficient light to charge its battery with its solar panel, and Philae lost power on Nov. 14. As 67P and its new passenger traveled closer to the sun, Philae may find itself in an orientation with more light, and thus may regain power at a later point. However, even if Philae never again re-establishes communication with Earth, the mission has been considered a massive success.

Unfortunately, the focus has shifted from the ESA’s massive triumph to a shirt. Specifically, the shirt Dr. Matt Taylor, a physicist from Imperial College, London, chose to wear to discuss his triumph to a shirt. Specifically, it was off-white with “Shirtstorm” across the front. Unfortunately, reaction has been mixed.

Some people have tried to debate whether or not the shirt in question is actually offensive, or if people should be offended by its pattern, frankly, that is a waste of time. The reality is, the shirt did offend a large number of people; even more important than noting their response, it is vital to understand why so many people were offended. Thus far, the discussion has been focused on responses to the shirt, without an attempt to unpack the greater issues shaping those responses. Only by understanding the fundamental reasons why the shirt offended so many people can the true issues at hand be resolved. Additionally, by only focusing on the shirt, and by extension Dr. Taylor, the criticisms have been overly personal, leading to social backlash against the perceived

Continued on page 4

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On Nov. 22, CHMMC welcomed 46 teams and 256 individuals from 29 different high schools to Harvey Mudd. After registration and a brief opening ceremony, participants were led into different rooms for the Team Round, during which each team was given 10 short answer questions and a series of 4 proof-based power questions to solve in 75 minutes. Following the lunch break was the Individual Round, during which participants had one hour to try their best on 15 short answer questions. The questions in both rounds were of varying difficulty and represented diverse topics.

Harvey Mudd organizer Mimeo Xu noted, “We are super pleased with the types of questions we have! Our mix of problems had more diversity in combinatorics and approachable types of graph theory for instance.” While all the answers were being graded, Dr. Rob Thompson from the Harvey Mudd Math Department gave a presentation about introductory topology. The top-scoring individuals were then put into a Tie-Breaker Round where the eventual ranking of winners was determined. Meanwhile, the rest of participants enjoyed a Mixer Round, where they met new friends and worked on problems together. Finally, the 2014 CHMMC culminated in the long-awaited awarding ceremony.

This year’s CHMMC was sponsored by Mu Alpha Theta, the MathWorks, Wolfram Research, the Harvey Mudd Math Department, the Harvey Mudd Presidents’ Office, and the Caltech Department of Mathematics. Top scoring individuals and teams received Mathematica licenses and copies of Matlab as recognition for their outstanding performances.

Star League A-Star Earth Team was the winning team in the Team Round, and Benjamin Chen from Orange County Math Circle placed first in the Individual Round.

CHING-YUN (CHLOE) HSU Contributing Writer

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Caltech Y Column

The Caltech Y Column serves to inform students about upcoming extracurricular activities and volunteer opportunities. The list is compiled by Neera Shah from information given by the Caltech Y and its student leaders.

For example, in Fall of 1996, the Y was organized to provide extracurricular activities planned and implemented by students as an opportunity to learn leadership skills and develop interpersonal skills. The following description of the Caltech Y and its programs can be found at https://caltechy.org. The office is located at 505 S. Wilson Avenue.

Current and past programs:
- Alternative Spring Break: 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 (Coastal, Eaton Canyon

Upcoming Events:
1. Smith Mountain Hike
Sunday | November 30th | 8:00 AM to 3:00 PM
The Caltech Y Outdoors group will hike to the summit of Smith Mountain in the heart of the San Gabriel Mountains. This seven-mile trip is good for both beginners and experienced hikers alike, with the first three miles gently climbing to a ridge laundry the border of the San Gabriel Wilderness. The last half-mile of the hike climbs steeply over 800 vertical feet off-trail to the summit of Smith Mountain, with 360-degree views that include the entire San Gabriel range, distant Southern California mountain peaks, and the Pacific Ocean in the distance if the atmosphere is especially clear. We will leave the Smith Mountain trailhead at 8:00 AM and return at 3:00 PM depending on our pace and traffic.
To sign up, fill out the form at the below. If you have questions, email Jeremy Sandler at jsandler@caltech.edu.

http://goo.gl/forms/GVvzeH3O7V

2a. Pasadena LEARNS
Friday | 3:00 - 5:00 pm | Madison and Jackson Elementary School
Come volunteer at Madison and Jackson Elementary School in the Pasadena neighborhood of Pasadena.

http://www.rnbo.gov.ua/

This map shows occupied territory on Aug. 15. This map and the map on page 4 contain information from: http://www.rnbo.gov.ua/

2b. Hathaway Sycamores
Thursday | 5:30-8:30 pm | Highland Park
Volunteer at Hathaway Sycamores, a group that supports local underprivileged but motivated high school students. There are two main programs: Student Tutors and Academic Screening.

Caltech Occidental Concert Band performs at quarterly showcase with guest conductor

NEERA SHAH Contributing Writer

On Friday, Nov. 21, the Caltech-Occidental Concert Band held one of their annual concerts in Ramo Auditorium. The group was led by guest conductor Sharon Lavery, co-conductor of the USC Thornton School Schola Musicae. Students from the Blair High School Band also performed to introduce the Caltech-Occidental band.

The band is composed of students, faculty, staff, and alumni from the Occidental College, the Caltech- administered Jet Propulsion Laboratory, and the local community. Since the band is composed of members of both schools, the band had a second performance on Sunday afternoon at Third Street Occidental College.

There are weekly group practices, starting at the beginning of the quarter, to prepare for performances. Directed by William Bing, the concert band puts on a performance for the community once every quarter.

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According to Ellen Price, a 4-year band member as a French horn player, Bing will, on occasion, perform with the band if there is a guest conductor.

The performance featured pieces by Charles Ives, Gerhard Henke, and Antonio Márquez. The theme for the night was "America;" Price’s personal favorite piece to play was "Danzon No. 2," by Márquez. She added that "the concert was interesting—it’s always cool to collectively as Donbass) had seen pro-Russian unrest, culminating in the occupation of several government buildings. At the time, these buildings formed the net total of land administered by the internationally unrecognized Donetsk People’s Republic (DPR) and Luhansk People’s Republic (LPR), but that was about to change. A series of pro-Russian and pro-Ukraine protests occurred but, as in Crimea the general desire was the maintenance of property. Ethnically Russian and Ukrainian people have lived peacefully side by side in Donbass for decades.

A steady trickle of troops and equipment reinforcing the pro-Russian DPR and LPR arrived across the border. Despite Russia’s official insistence that Ukraine’s internal issues had nothing to do with them, these troops were less disciplined than the ones now formally acknowledged to have intervened in Crimea, and numerous cases of GPS-tagged Facebook photos show Russian soldiers “on the wrong side of the border.” These incursions were opposed by Ukraine’s army, and were localized to a few towns and cities within a few miles of Russia’s border.

By July 14, the separatists had gotten hold of Russian-made surface-to-air missiles and wasted no time defending their airspace. Over the next few days, they publicly announced several Ukraine military An-26 aircraft, including one on July 17. Shortly after it became obvious that July 17’s shoot down was actually of MH17, a series of spectacular backpedals occurred, during which it was claimed MH17 was shot down by Ukraine-operated fighter jets after being deliberately diverted into the conflict zone by corrupt Ukrainian air traffic control, presumably to frame Russia. As usual, Russia’s line is that all the weapons used by separatists were captured from Ukraine’s army. Expert analysis has been unable to support these suggestions, finding instead no shortage of evidence that they had never been purchased or used by Russia. Russia’s national media is every bit as uncritical and parochial as that of the U.S., however, so the deployment of such crude propaganda is still highly effective.

Through late July, separatists continued to lose ground as their promised full-scale Russian invasion force, massing at the border for months, failed to materialize. By mid-August, Ukraine looked poised to crush the separatists. But that was about to change.

On March 16, a referendum was held in which residents were asked to choose between annexing with Russia or adopting Crimea’s 1992 constitution, in which it was a semi-autonomous entity within the Soviet Union.

The status quo was not an option. In classic autonomous state within the Soviet Union.

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Faith in Strangers caters to a range of music tastes

**FEATURE**

NAILEN MATSCHKE  
Contributing Writer

Every once in a while you stumble across a record that for whatever reason you just haven’t gotten around to listening to, and then an hour or so later you wonder just how you could have put it off for so long. This week, I had the enjoyable experience of hearing the work of Manchester-based producer Andy Stott for the first time, and so far it has definitely been the sort of thing I regret not listening to until now. Stott released his first record *Merevles* in 2006, an ambient-influenced, dance-focused album that displays an attention to the fine details of its sound’s texture, an often dark, swirling, and bass-heavy mixtue that serves as an example of well-produced dub techno, with particularly strong sound design. Stott’s 2008 release, *Unknown Reception*, then stands in contrast as it seems to take quite a few cues from older electronic music, even sounding a bit dated as it evokes classics such as Aphex Twin’s *Selected Ambient Works 85-92*, but without quite the level of Richard D. James’ technical ability. Stott’s 2012 release, *Luxury Problems*, however, was universally acclaimed for its chilling vocal samples, off-kilter and distorted percussion, and its all-around uneasy, thumping pulse that drives minutes of dark, almost uneasy music. On the 2014 release, *Faith in Strangers*, Stott takes this style and applies it pointedly in some new directions.

The album starts off remarkably slow, with a six-and-a-half minute journey through bleak, swelling synth tones and nondescript background samples (“Time Away”), setting the tone for the next few tracks, which are all relatively slow key compared to the album’s more aggressive second half. “Violence” then takes a few minutes to fade in over a muffled, rumbling bass and ethereal female vocals, likely delivered by Stott’s former piano teacher (as on his previous album). Before picking up a pulsing, deliberate beat that pushes the track through cacophonous storms of warped and glitched audio that sound as though the speakers might be on fire. This sort of intentional and controlled chaos is one of the things *Faith in Strangers* excels at; it never feels like it’s too harsh or too chaotic, and serves as one of the layers that lies on top of Stott’s solid beats, rather than unstructured noise attempting to dismantle the music’s flow.

Stott’s use of it is also impressively versatile, with strange samples serving as a large part of the percussion complementing vocals that trip over themselves on the quiet “On Oath,” while also serving as the motley, memorable moments of the aforementioned “Violence,” or of the album’s most energetic track, “Damage.” Reprising its head more than two-thirds of the way through the album, “Damage” is the sort of track you’d expect to hear on a crowded American dance floor, with heavy bass, an aggressive main melody, and an overall in-your-face approach to showcasing Stott’s style, markedly different from his typically more subdued efforts. While an entire album of it would get old very fast, it’s an unexpected and fairly enjoyable addition to the record, and at 4:33 it’s the shortest track by a decent margin, so I can hardly imagine its inclusion offending more than the pickiest of listeners.

After playing through *Faith in Strangers* a number of times, I was actually a bit surprised to find myself particularly drawn to the tracks on its second half, considering that Stott’s work to this point has been for the most part quite a bit more laidback. I found the album’s sixth track, “How It Was,” to be one of its most memorable cuts, showing off a beat reminiscent of UK dubstep, but absolutely dripping in crunchy distortion and audio clipping, warching its way through the track and corrupting all of the samples that build around it until they too sound like the cries of dying electronics. As someone who tends to really enjoy music that makes an effort to be dark and abrasive, I think Andy Stott has intelligently applied these two themes to this record without just updating his older compositions with different production.

While I feel as though most of the tracks I haven’t already mentioned each have their own problems to nitpick, I would very much hesitate to call any of them weak, as they all present a different aesthetic and angle of approach, ultimately producing a varied and interesting set of takes on the album’s sound. “Science & Industry,” for example, sounds like a bit of a mutated version of a Chvrches song, with an up-tempo, synth pop-like beat running through it, supported by endlessly ticking samples of clocks and a blood pressure-raising uneasiness that permeates every little piece of the sound. It gets a little repetitive after a bit, which is certainly a reasonable complaint about it and several other of the album’s tracks, but I think that since each stands fairly independently from its companions it ends up not being a big deal since the album is always going to new places.

Harsh music is not something that everyone enjoys, and that’s fate—it takes time to get used to, can be anywhere from distracting to downright uncomfortable, and is generally not the easiest thing to just put on for fun. However, some artists manage to really nail the aesthetic and make it a worthwhile inclusion to their work instead of something that exists just for its own sake, and if one can put in the effort to appreciate this, the results are usually pretty rewarding. On *Faith in Strangers*, Andy Stott has combined his experience in UK dubstep and techno with on-point production and an overwhelmingly inky aesthetic in order to make a strange beast that from its softest to most aggressive moments is unrelenting in its quest to throw something at the user that’s just not quite what they expected, but is still pretty cool nonetheless. There’s a lot you can get out of this record, and I definitely recommend giving it a listen.

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**Special Free On Campus Student Screening of Interstellar December 1**

On the evening of December 1, Caltech students will be treated to an amazing Caltech-only experience featuring a screening of the movie *Interstellar* with a special talk on the science in the film by Professor (and Alumnus) Dr. Kip Thorne. Dr. Thorne has been an Executive Producer and the science advisor for the film and was involved in it from its inception, ensuring that real science is built into its fabric. He has also written the book “The Science of Interstellar,” which should be read before viewing the film; it is full of spoilers.

Please save the date and plan on joining your fellow students for what will most definitely be a thrilling, unique inside look into the movie Interstellar and the science behind it. More details will be sent to all students in the near future. Save the date!!!!

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[Image 25x35 to 397x403]
Dr. Taylor’s perceived sexual objectification of women, women in STEM fields would feel as though their other male colleagues would also reduce them to sexual objects. Thus, this would make women in STEM fields feel demeaned, reduced to nothing but their bodies with little or no respect for their intellectual contributions to their chosen fields. The first assumption made in the logic of the criticism of Dr. Taylor’s shirt is that Dr. Taylor could not wear a shirt bearing images of women without sexualizing actual women. This stems from the idea that men cannot control their sexual impulses, which is distinctly unfair and reduces men to little more than animals in rut.

The second assumption made is that sexualization is inherently demeaning to women. This comes from the current portrayal of female sexuality, which presumes women have sexuality not for their own pleasure but rather for the pleasure of men, and therefore women reduce themselves to objects to be acted on when they have sex or are sexualized. Of course, this is a ridiculous narrative; it is now well studied that women are perfectly capable of obtaining pleasure from sex, and that women desire sex at least as much as men do. Thus, the problem is not the fact that the shirt had images of sexualized women, but in the way society views sexualized women.

The third assumption made is that a demographic should be treated as a monolith. This assumption was used in two ways: first, to extrapolate the sexualization of one set of portrayed women to the sexualization of a broader group of women, and second, to extrapolate one male scientist doing so to all of the male scientists in a given research group. Judging a demographic by a given image is inherently unfair to the individual. Conversely, such treatment does not allow an individual to express their own merits, instead judging them off perceived ideas about their demographic. Ultimately, the problem is that Dr. Taylor’s shirt is not what is marginalizing women, nor is it the reason STEM fields are unaccommodating to women; it is symptomatic of larger, fundamental social issues.

The response to Dr. Taylor’s shirt has largely ignored the fundamental reasons why it was offensive to many people. The lack of depth in the many discussions of the shirt is evident in the frequent lack of examination; if feminists are not clearly articulating the reason something is problematic, they are not going to be able to rectify the situation at hand, let alone the true issues going into creating the problematic situation. By instead targeting Dr. Taylor specifically, it appeared that people identifying as feminists were getting extremely offended by a shirt, rather than the deeper social issues that the shirt was representing. This had two deeply negative consequences: the treatment of Dr. Taylor, and the subsequent perception of feminism as a movement.

A large number of people misdirected their justified anger at social injustices to Dr. Taylor, leading to unfairly harsh criticism of him as an individual. There is no way to know what Dr. Taylor’s intentions were when choosing the shirt, and most of the people accusing him of being a sexual objectifier who doesn’t value women in STEM fields have never met him, and have no idea about Dr. Taylor’s real intentions. All they have to criticize Dr. Taylor’s shirt choice, it is not valid to extrapolate that one poor choice to a pattern of behavior. It would have been vastly more constructive to take the opportunity to ask him to place the shirt in context and explain his reasons behind it. This is a potentially inflammatory article of clothing for his interview. In the parlance of parents and teachers everywhere, the experience should have been treated as a “teachable moment,” from which Dr. Taylor—and anyone copying—might have learned in a productive, supportive environment.

The way to a massive number of people responded to Dr. Taylor, not only was a man treated harshly and arguably unfairly, but also the feminist movement yet again came under fire as excessively politically correct and aggressive. In academic feminism, there is a concept known as “tone-policing.” Tone-policing is the practice of attempting to shut down a discussion by telling a given party that its manner of speaking is inappropriate. As tone-policing is frequently used to shut down people fighting against marginalization by dismissing them as “too angry” or “too emotional,” it is unpopular for feminists to criticize other feminists for aggressive rhetoric. However, no matter how just a movement’s aims are, the movement is less if it cannot enact change. In order to fight marginalization productively, it’s important to know the audience one is addressing. While there should absolutely be safe spaces for feminists to go and share their responses to various problematic issues without worrying about how rhetorically effective they are, those spaces are not the public sphere.

When addressing a feminist issue in a medium highly visible to a mainstream, public audience, it’s important to not alienate the audience or put them on the defensive and instead make the movement feel included and appreciated. Unfortunately, the feminist movement does not have the luxury of considering rhetorical effectiveness. If the movement is to bring about equality of opportunity for all gender identities, it must first make sure it is effectively arguing its stance.

**Scientist’s wardrobe choices come under fire**

Continued from page 1

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**Scientist’s wardrobe choices come under fire**

Continued from page 2

by early September, Ukraine pursued a ceasefire with the separatists, though Russia still officially denied official involvement. On Sept. 13, a convoy of 107 buses arrived unsuspected, undermining the already shaky ceasefire. Russia stated the convoy contained humanitarian aid, which the humanitarian crisis surrounding the conflict is real enough, however. Much of humanitarian aid in the region has been undermined by the conflict, and the region lacks the infrastructure to sufficiently feed the population. Russia’s original goal, stoked by President Putin, was to “de-escalate” the conflict against marginalization by fighting against marginalization by dismissing them as “too angry” or “too emotional,” it is unpopular for feminists to criticize other feminists for aggressive rhetoric. However, no matter how just a movement’s aims are, the movement is less if it cannot enact change. In order to fight marginalization productively, it’s important to know the audience one is addressing. While there should absolutely be safe spaces for feminists to go and share their responses to various problematic issues without worrying about how rhetorically effective they are, those spaces are not the public sphere.

When addressing a feminist issue in a medium highly visible to a mainstream, public audience, it’s important to not alienate the audience or put them on the defensive and instead make the movement feel included and appreciated. Unfortunately, the feminist movement does not have the luxury of considering rhetorical effectiveness. If the movement is to bring about equality of opportunity for all gender identities, it must first make sure it is effectively arguing its stance.

**Scientist’s wardrobe choices come under fire**

Continued from page 2

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Bhagavathi runs across the country

After a day of preparation in low-30s weather, conditions improved a bit with temperatures in the high-30s by race time, but a soft, muddy makeup caused problems from the outset as multiple runners slipped coming around the many hairpin turns within the first mile.

Bhagavathi ran conservatively to open the race, hanging just outside the top 200 despite a fall of his own near the 3-kilometer mark. The junior hid his time until about midway through, when he kicked into gear and moved into the middle of a massive pack of runners. With the end in sight, he fired up his best finishing kick down the stretch to break into the top 150.

“Of course it was an amazing experience, but I am not leaving satisfied,” Bhagavathi said. “Getting a taste of nationals makes me even hungrier for next year, and I hope to have my teammates competing here with me then.”

Bhagavathi now owns the top two times in Caltech cross country history, having broken Ian Shapiro’s 2001 mark set at the NCAA West Regional and his own record from four weeks prior.

Ball so hard ... and it might hit his face

To regain the lead just a minute later, Bradley evened things up on his first strike of the day with 2:13 left in the first quarter. La Verne came back with a penalty goal on the next possession, but once again the Beavers equalized as junior Patric Eck (Fullerton, Calif. / Troy) got on the board with 1:28 to go. Unfortunately for the Beavers, the Leopards mustered a late go-ahead strike to take the game by a 3-2 final score over the last 11 minutes of the match, but La Verne remained in the match at 1-0 while Caltech begins at 0-1.

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ASCIT Minutes

ASCIT Board of Directors Meeting
Minutes for 20 November 2014. Taken by Sean McKenna

Officers Present: Nima Badizadegan, Connor Rosen, Connie Hsueh, Patrick Nikong, Sean McKenna

Guests: Margaret Lee

Call to Order: 11:01 pm

President’s Report (Cat):
• DevTeam Member Appointments were completed at the meeting and will be announced soon.
• Midnight Donuts will occur on December 3rd on the Olive Walk.
• Prefrosh Yield Committee signings were forwarded to the Houses. Sign up if you want to have an impact on the incoming Class of 2019!

Officer’s Reports:
• V.P. of Academic Affairs (ARC Chair: Nima):
  o Discussing frosh advising partnership between the ARC and the Deans’ Office, which may be implemented next term.
  o SURF advising may happen next school year.
• V.P. of Non-Academic Affairs (IHC Chair: Connor):
  o Student Life and Housing Committee meeting is happening on 1 December. Send comments on anything to Connor, Justin Koch, or Andre Comella, the student representatives
  o The Dean’s Advisory Council is discussing the Independent studies program, pre-advising, alumni relations, and upperclassmen pre-advising. Thoughts can be directed to any member of the council
• Director of Operations (Connie):
  o Phys 8 lab conversion will not involve students in the next step. Peter Duly is working on it.
• Treasurer (Patrick):
  o We still have money coming in from outside sources for Big I
  o Reimbursements for Big I should cover consumable expenses. Capital investments become property of ASCIT after Big I.
• Social Director (Annie):
  o Be a Kid Again and ASCIT Formal are being planned.
  o Formal will be in April.
  o Caltech/Harvey Mud party may happen again this year
• Secretary (Sean):
  o Nothing to Report

 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. The next BoD meeting will take place on December 4th, 2014 at 11pm in SAC 15.

Meeting Adjourned: 11:41 pm

REMINDER FROM THE COUNSELING CENTER:
Meditation Mob
(drop-in mindfulness meditation group) meets every Tuesday
Bottom floor of Winnett from 12:00-12:50 pm

CALTECH THEATER offers several chances to branch out and take chances, have fun and expand your social network this fall!

1. Wednesday Nights 730-930 in Ramo Auditorium. Director of Theater Arts Caltech, Brian Brophy (Star Trek TNG, Shawshank Redemption) helps guide you through the fundamentals of Directing/Acting/Writing for the stage (life), to a final production of several ten-minute plays by students December 3, 2014. We still have room for about six more students! Last chance 2014!

2. WANTED: Actors, singers, musicians, technical personnel, and designers for new, original Caltech musical Alice Through the Wormhole! This musical is currently in the development phase with a world premiere run February 20-March 1 2015! If you are interested in any facet of production, including script development, contact Brian directly!

The California Tech

Contact: Adam Jacobo
626.395.5907
ajacobow@caltech.edu

Caltech Public Events

Caltech Students only!!

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

Contact: Adam Jacobo
626.395.5907
ajacobow@caltech.edu

The Feynman Prize is made possible through the generosity of Ione and Robert E. Paradise, with additional contributions from an anonymous local couple. Nominations for the Feynman Teaching Prize are welcome from faculty, students, postdoctoral scholars, staff, and alumni.

All professorial faculty of the Institute are eligible. The prize consists of a cash award of $3,500, matched by an equivalent raise in the annual salary of the awardee. A letter of nomination and detailed supporting material, including, but not limited to, a curriculum vitae, course syllabus or description, and supporting recommendation letters should be emailed to kkerbs@caltech.edu or directed to the Feynman Prize Selection Committee, Office of the Provost, Mail Code 206-31, at the California Institute of Technology, Pasadena, California, 91125. Nomination packages are due by January 5, 2015.

Additional information including guidelines for the prize and FAQ may be found at http://provost.caltech.edu/FeynmanTeachingPrize. Further information can also be obtained from Karen Kerbs (626-395-6039; kkerbs@caltech.edu) in the Provost’s Office.

The CaliforniA teCh
Get Fit with Brad/Chad: Weightlifting 102

BRAD CHATTERGOON
Contributing Writer

Hey, guys and girls. So Big I happened this weekend. Was it just me or did it seem like the last Big I was a bit better? For those of you who missed it here are the highlights. There were a lot of people there. Many TAs were found interacting with their students outside of the classroom for the first time, and some are probably hoping also for the last time. Walking around the event, one could easily find oneself people watching and internally asking the same question quite often (“Does that person even go here?”) And finally, realizing that an RA/RLC is mouthing “Are you ok?” over your shoulder to the person you are talking to is the surest way to make you feel like a sexual predator. Anyways onto this week’s fitness contribution.

There are two broad categories of exercise types: compound movements and single joint exercises. Compound movements, as the name suggests, are made up of several muscle groups working together to produce movement. Single joint exercises, on the other hand, focus specifically on one muscle group movement. Compound movements usually involve large muscle groups and one can usually lift a lot of weight doing them. Examples of compound movements are the “big lifts”: squats, deadlifts, bench press. Examples of single joint movements involve large muscle groups and one can usually lift a lot of weight doing them. Examples of single joint movements are crunches, dumbbell bicep curls, and tricep pushdowns.

As a newbie trying to get into fitness, the first step is to build up basic strength before moving on to any serious workout program. I recommend a basic four-day routine that I’ll outline below. The routine is designed to work on basic strength, both weights and functional, so that you would like to pursue. The program can be repeated immediately after Day 4 or a rest day can be inserted between Day 4 and starting over from Day 1, but I do recommend that you follow it for 4-5 weeks before moving on to a more focused program.

Day 1: Full Body Split

- 3-5 min.: cardio warmup
- 2 x Superset:
  1. Barbell Bench Press 12 reps
  2. Barbell Stiff-Leg Deadlifts 12 reps
- 5-10 min.: cardio warmup
- 2 x Superset:
  1. Barbell Overhead Press 12 reps
  2. Barbell Shoulder Shrugs 12 reps
- 2 x Superset:
  1. Barbell Bicep Curl 12 reps
  2. Barbell Lying Tricep Extensions 12 reps
- 2 x Superset:
  1. Lying Leg Raises 12 reps
  2. Seated Calf Raises 12 reps
- 60-90 sec. rest between supersets.

Day 2: Functional Strength

- 5-10 min.: cardio warmup
- 10 x Giant Set:
  1. Body Weight Squats 20 sec.
  2. Pushups 20 sec.
  5. Reverse Crunches 20 sec.
- 60-90 sec. rest between giant sets.
- 2 x Superset:
  1. Barbell Incline Bench Press 12 reps
  2. Pull Ups or Assisted Pull Ups 12 reps
- 2 x Superset:
  1. Dumbbell Lunges 12 reps
  2. Dumbbell Stiff-legged Deadlifts 12 reps
  3. Dumbbell Shoulder Press 12 reps
  4. Dumbbell Shoulder Shrugs 12 reps
  5. Dumbbell Alternating Tricep Kickback 12 reps

Day 3: Full Body Split

- 5-10 min.: cardio warmup
- 2 x Superset:
  1. Dumbbell Incline Bench Press 12 reps
  2. Pull Ups or Assisted Pull Ups 12 reps
- 2 x Superset:
  1. Dumbbell Lunges 12 reps
  2. Dumbbell Stiff-legged Deadlifts 12 reps
  3. Dumbbell Shoulder Press 12 reps
  4. Dumbbell Shoulder Shrugs 12 reps
- 5-10 min.: cardio warmup
- 2 x Superset:
  1. Dumbbell Incline Bench Press 12 reps
  2. Dumbbell Alternating Tricep Kickback 12 reps
  3. Dumbbell Overhead Press 12 reps
  4. Donkey Calf Raises 12 reps
- 60-90 sec. rest between supersets.

Day 4: Functional Cardio

- 5-10 min.: cardio warmup
- 10 x Giant Set:
  1. Body Weight Squats 20 sec.

*60 sec. rest between giant sets.

This workout program should take you no longer than one hour at the gym and is an excellent intro program. Until next week.
-Chad/Chad
**HUMOR**

**Acquired Taste**

Dr. Z

You guys ready to do this?

Well, Dang

---

**103° in Bolivia**

Georgio Kraggman

...so of course you can't judge people based on which sex they're attracted to. And even if you could, it's not a choice one actively makes.

You're attracted to Asian girls?

creepy

fetishist

weird

yellow fever

weahoo

---

**Slaughter your dreams**

Gigi Anotello

Looking for a campus job?

Earn $12-16/hour while networking with alumni, developing your speaking and interviewing skills, and helping advance Caltech.

**Answers to previous crossword**

**Answers to previous Sudoku**

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- puzzlechoice.com