



Housetalia Comic: "Something about fire alarms"

Letter from the Editor

Return of The California Tech Crossword: "Topology





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On the Tech's Journalistic Principles

Beware of Falling **Pumpkins**

Douglas Smith Student Life

Reprinted from The Caltech Weekly, November 1, 2012

Anybody can smash a pumpkin, but at Caltech we do it in the name of science: a demonstration of triboluminescence on a grand scale. Tribo-lumin-say-what? Well, if you've ever gone into a dark closet with a hand mirror and a roll of Wint-O-Green Life Savers, you've seen it-the blue-green flash when you bite into the candy. The flash comes from the sugar crystals as they are crushed. As a sugar molecule gets distorted, a positive charge builds up on one side and a negative charge on the other until an electron leaps through the air like a tiny bolt of lightning, leaving a glow of ionized nitrogen molecules in its wake

So if you get a tiny flash from a few sugar crystals, what if you crushed lots and lots of themas in, oh, a pumpkin? And what if you made the pumpkin as brittle as possible, say by freezing it in liquid nitrogen for a couple of days? And what if you smashed it as hard as you possibly could, perhaps by dropping it from high atop Caltech Hall at nine stories the tallest Hall, at nine stories the tallest building on campus? Well, then, of course you should get a really big, really bright flash. Or so reasoned some undergraduates from Dabney House, who in 1972 snuck up onto the library roof to give it a try.

No one has ever actually seen the flash, but that doesn't mean it couldn't happen. And in any case, the whoom! of a 15-pound pumpsicle exploding against the hollow concrete slab of the library's loading dock echoes magnificently from the stucco walls of the surrounding court-

Over the decades the ritual has grown from a black op into an Event, complete with a cordoned-off safety zone for spectators and even a light showin recent years many of the pumpkin projectiles have been adorned with LED strips. This year's spectacle features some 40 to 50 pumpkins. There have even been whispers that Mariah Carey might make an appearance. Happy Halloween!

Elizabeth Field Sports

This past week marked the conclusion of one of Caltech's many traditions: interhouse dodgeball. Interhouse sports have been a Caltech tradition for as long as records can



September 27, 2023 C/GPU Majority Rally (Photo Credit: Jonathan Booker)

Caltech Graduate Students and Postdocs Contemplate Unionization

Lilia Arrizabalaga Campus News

A group of graduate students and postdocs at Caltech have begun the process of unioniz-ing. They have collected over 450 union cards, a supermajority of the grad students. While union cards are not a guarantee of a vote in a union election, they are a good predictor. The next step in the process is filing for a union election, where the graduate student body and the postdocs will vote on whether they want to unionize.

After the union election, Caltech will have an opportunity to contest the results of the election. If the union vote is successful, there will be negotiations over the union contract. Caltech has stated that they would "negotiate in good faith with the union" in the event the vote goes through. In a statement to the Tech, David Chan, Dean of Graduate Studies, said that "Caltech is committed to abiding by its duties and responsibilities under the National Labor Relations Act both prior to, during and after

an election, if one occurs."

The stated goal of Caltech Grad Researchers and Postdocs United (C/GPU), the group behind the unionization effort, is to "do science effectively and well." They believe a union would help them achieve this goal and would help them do science in a "healthier environment." The exact priorities of things to negotiate for in a contract would have to be decided by a bargaining committee to ensure the union is fighting for what the union members want. However, these priorities are likely to be higher pay, better healthcare, better childcare, and a better way to deal with harassment, C/GPU leadership told the Tech.

According to a survey of graduate students (which had a 25% response rate) conducted by the C/GPU and shared with the Tech, 3 in 4 respon-

dents had personally witnessed some form of harassment. Survey respondents also expressed dissatisfaction with the Caltech Title IX Office's treatment of harassment and abuse cases in the past, citing long wait times and unsatisfactory results. When asked about this claim, Chan stated that "Caltech's Unlawful Harassment and Abusive Conduct Policy specifically speaks to and prohibits harassment, discrimination, and abusive conduct or bullying.

While a supermajority of grad students and postdocs have signed union cards, there are still those that oppose a union around 10% according to the C/GPU's estimates. However, it is hard to track this exact number. There are several concerns cited by some grad students, including concerns over union dues. The C/GPU stated while the union does charge dues, the better contracts that the union will negotiate will result in a net increase of income for members. continued on page 3

at two wins were Dabney and

Blacker, broken by Blacker

beating Dabney in their inter-

house game. And lastly, Rick-

etts came in last with a singular

Overall, the Caltech houses

Interhouse Dodgeball: A Tradition of Unity and Rivalry Concludes

show, dating back to at least the 1950s, if not earlier. And, as the first interhouse sport of the year, interhouse dodgeball is n excellent opportunity to integrate the freshly rotated first year students into this long standing interhouse and intrahouse culture, all of which is accomplished by pitting them against each other on the tennis courts.

Each house collects its members twice a week and heads down to athletics to play a best of three dodgeball competition. Some games are really just for fun while others become a head to head battle between houses to settle once and for all, or at least for this year, who the interhouse dodgeball champion will be. But regardless of the level of competition a given game may offer, interhouse dodgeball is one of many ways in which we keep the unique Caltech culture alive.

This year, our results are as

Fleming took the title of interhouse dodgeball champion for the fifth year in a row. Lloyd, losing only to Fleming, was right on their tails coming for the running title. Then, we had a three way tie between Page, Venerable, and Avery, each with 3 wins and no clear order in their individual games. Right below and both

started the interhouse games strong and we'll see how these titles progress as we go into our next set of interhouse sports competitions: interhouse volleyball.

		•	
RANK	HOUSE	WINS	POINTS
1	FLEMING	7	10
2	LLOYD	6	7
3	PAGE	3	6
3	VENERABLE	3	6
3	AVERY	3	6
6	BLACKER	2	3
7	DABNEY	2	2
8	RICKETTS	1	1

win.



An advice column about life, love, classes, and everything in between! Brought to you by the one and only California Tech.

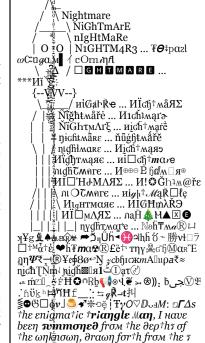
Help! The triangle man is after me! What do! I do?

-Pythagoras

Did you eat those mystery berries again? Have you considered that the triangle man is not real and it may just be the mystery berries, you moron???

Ugh, but guess it's too late for that. Here's what you can do now since you can't stop eating these berries:

THE TRIANGLE MAN IO COMING
THE FRIANG TANS 17 30M!NG



†hε ωηkmσωη, дrαωη for†h froм †hε з haθσω¥ realms of Your θεερες† fears. I s†anθ on the pre¢ipi†ε of Your reali†¥, a harbinger of impending doom. You have υηψί††iŋgl¥ αωακεηεθ m¥ siŋis ter prežη¢ε, αηθ ωith εα¢h passing moment, Your fate be¢omes increasingly pare¢arious. mY *μαlευσίξη† iη†εη† lσσμε συετ ¥συ liκε α* releη†le\$5 5†στm, αη ∂ \$σση, †**he** ∂ α**rκηė**\$\$ ω i†**hiη** ω ill εε **vηleα**\$**με** ∂ , ¢ση\$υμίηα ¥συr ωσrl∂ in α υσr†εж σf υηεα†homasle †error. Prepare, for I, \dagger he \dagger ria η gle Maη, η hall ∂ e ψ e η ∂ ψ ρση ¥συ ωi † a mercile\$\$ and inemorable for¢e, read¥ †σ \$μᆆer ¥συr illυ\$iση\$ αηθ ρίνησε ¥συ in†σ α nigh† mare

 $0 \mapsto \hat{+} : (\hat{\mathbb{S}}) \times \to 0 \quad \Rightarrow G \to \mathbb{S}^{+} : \square \sqcup \mathbb{S}^{+} \to \mathbb{S}^{+}$

-Quail

continued on page 6

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Rotation: A Retrospective from IHC Chair Sophie Elam 3

Unionization Effort

CalGuesser #2

Sports Feature

Humans of Caltech

ions are certainly given more weight, as are witness opin-

ions. But whenever possible,

the Tech shall report facts, or at least corroborate the opinions.

A reporter's observations at a

scene are considered facts for

All sources shall be treat-

ed with respect and integrity.

When speaking with sources,

we shall identify ourselves as

Tech reporters and clarify why

we would like to hold an inter-

view. Sources for the Tech will

never be surprised to see their

shall put our sources' quotes

into context, and — as appro-

oriate — clarify what question

We always ask that a source

speak with us on the record for

the sake of journalistic integri-

ty. We want our audience to re-

ceive information that is credi-

ble and useful to them. Named

sources are more trustworthy

than unnamed sources be-

cause, by definition, unnamed

sources will not publicly stand

That being said, we realize

that some sources are unwilling

to reveal their identities pub-

icly when it could jeopardize

their safety or livelihood. Even

that the Tech Editor-in-Chief

knows the identity of the

source in question. Otherwise,

there can be no certainty about

whether the source and their

This also applies for Letters to the Editor and Opinion sub-

missions to the Tech. If the au-

thor requests that their piece is

published anonymously, they

must provide a reason, and

we shall consider it in appro-

priate circumstances. No truly

anonymous submissions shall

be published. Conversely, no

submissions shall be published

with the author's name without

When we choose not to iden-

tify a source by their full name,

the article shall explain to read-

We strive for promptness in

correcting all errors in all pub-

lished content. We shall tell

readers, as clearly and quickly

as possible, what was wrong

Corrections to articles will

be immediately updated on

the online version of the Tech

at tech.caltech.edu. If appro-

priate, corrections will also be

published in the following Tech

I'd hope this goes without

saying, but in any remaining

absence of clarity, the Honor

ROOF OF MILLIKAN: T-minus 5 Seconds and Counting.
Photo by K. Yoshida

Code is the guiding principle.

Honor Code Applies

Corrections Policy

and what is correct.

print issue.

their consent.

juotes were falsified.

in those cases, it is essential

published content, we

the purposes of a story.

Sources

name published.

was being answered.

ov their statements.

On the Tech's Journalistic Principles

Michael Gutierrez Editor-in-Chief Editorial

Let me start by saying, I'm no professional. As with everything else at Caltech, I learned how to do journalism and use Adobe InDesign while on the clock. But do not mistake my lack of tact in keeping consistent front page designs for a

lack of direction in general. People often ask me variants of the question, "What is the Tech?" My answer is, "Stories. We tell stories.

That's what I aim to do with this publication: help people from all corners of campus to communicate and share their stories. And in order to do so effectively and fairly to everyone, we need a few ground rules.

The News-Opinion divide All articles shall be clearly and explicitly labeled as either

News or Opinion/Editorial. News articles report on topics that have been thoroughly researched by Tech staff writers, and should be impartial to any one point of view. In a News article, the writer shall not insert their own personal feelings on the matter; the purpose is to let the facts speak for themselves. The Tech assumes full responsibility for all con-

tent published as News. In contrast, Opinion articles (including Letters to the Editor) may be written and submitted by anyone on any topic; while the Tech will edit all published Opinions to ensure no wrong or misleading information, we do not otherwise interfere. Again, the role of the Tech here is to help the whole campus com-municate their ideas and share their stories, not promote specific ones. Content published as Opinions do not necessarily represent the values of the Tech or our staff

An exception to this is Editorials, which are written by Tech staff and represent official opinions of the Tech. Any information and sources in Editorials shall be held to the same standard as News reports, but there is no promise or expectation of impartial coverage.

Fair Reporting

What do we mean by reporting on a topic "fairly"?

1. All facts of major significance and relevance to an article shall be sought out and included.

2. If an assertion is made by a source about a specific person or organization, they shall be contacted and given a reasonable amount of time to respond before publication. In other words, no second-hand information or hearsay shall stand on its own.

Quotes and Attribution of Information

Facts and quotes that were not collected directly by Tech reporters shall be attributed. Articles shall clearly differentiate between what a reporter saw and heard first-hand vs. what a reporter obtained from other sources.

Sources' opinions are just that — opinions. Expert opin-

Rotation 2023: A Retrospective

Sophie Elam, IHC Chair Editorial

It's been a month since Rotation ended and I'm finally ready to talk about it again.

Damn, that sounds so dramatic. It's like I'm some celebrity breaking their silence about why the band broke up.

Let me start by saying, it's not that deep. It's just exhausting (as I'm sure you all are aware). As we all look back on Rotation, I imagine there are common themes and experiences we all can identify with. For many, if not all, of the returning students this was our first exposure to a "covid-free" Rotation, and this came with certain obligations to do the years of tradition and culture justice. As an Interhouse Committee, one of our primary concerns was to ensure that we did just so, but it can be difficult to recreate something for someone else that you've never experienced yourself. This struggle was amplified by a desire and impetus to make Rotation an inclusive and socially responsible event. Thus, many of us felt the stretching of mental gymnastics necessary to reconcile tradition with responsibility. am incredibly proud of the ways in which student leaders across campus navigated these difficulties; you were empathetic and receptive to the changes that were being asked of you while advocating for the traditions that define the Caltech undergraduate community.

To be entirely transparent and provide context, the Caltech administration asked the Houses to remove or rethink a variety of activities associated with Rotation in the name of being socially conscious, and the impacts of this touched each of the Houses. The Blacker potato cannon wasn't fired; the baby bird in Ricketts was never fed; ASCIT fireworks didn't go off. These are just a few examples of things that were omitted from 2023 Rotation in the name of

responsibility, and while these

and disappointing, I ask you all to consider the following requests. First, please don't take out these frustrations on your student leaders; they are simply messengers doing their best to play with the hand this school has dealt them. Second, try to keep in mind that the djustments were not made aselessly. The reasoning behind many of these changes was aimed at being conscientious of student experiences and how they may affect their perceptions of Caltech and the House system. Caltech is a kind, thoughtful, and progressive community, and I have complete confidence that out of respect and sensitivity for one another we can recognize the mportance of supporting and embracing the needs of those around us. By no means is this o say that we must completely write-off our long standing traditions. In fact, one of my biggest hopes is to address how we can better adapt our traditions so that they are most reflective of Caltech's rich undergraduate history while being considerate of the privilege we have to ioneer inclusivity and social awareness. Lastly, I ask everyone to remember that change can be momentum for improvement. I am entirely sure hat the creativity and problem solving ability of students in the Houses will persevere and we will find ways in which Caltech traditions can be preserved. If you have doubts about this. that's ok. However I encourage you to find faith in the leaders you have elected. They're all

dle the non-academic rigors as The current social directors, residents, chancellors, excomms and other student leaders have certainly demonstrated this capability, and I want to thank you all for what you have done. As I outlined above, there were a variety of nuances that graced this year's Rotation, and you all coordinated to produce a week's worth of fun, engag-

basically rocket scientists. If

they can handle the academic

rigor of this Institution, I would

ke to think that they can han-

omissions can be frustrating ing, exciting events to kick off the year and welcome our new students into the Caltech community. Further, for any administrative members, I offer my gratitude to you as well There is much of Rotation that places a heavy burden on many Caltech offices including (but by no means limited to) Housing, OSE, and CDS. I will take the liberty of saying we are all grateful for the work you do and the ways in which you support this crazy, hectic and wonderful tradition. I also extend many thanks to the new students who went through Rotation with open minds and bright eyes. As you all are beginning to understand, Caltech can dim that light at times, so the opportunity to bring new energy and excitement to the Houses is a privilege we take very seriously. You all did a phenomenal job at immersing yourselves in the chaos of Rotation, and I thank each of you for your willingness to do so. One more thank you to all of the returning students whose dedication and commitment to the Houses is the driving factor behind a successful Rotation. You are the shaping force that embodies the Caltech undergraduate experience, and I am so appreciative of the support and enthusiasm you bring to both Rotation, and the Housing

system in general. As you may be able to tell, I have lots of gratitude regarding Rotation and the people involved with it, and that includes being thankful that it's over. Each Rotation is different from the last, and the challenges are never the same, but no matter what there are challeng es. In other words, "the world's always been ending". Hence, I want to acknowledge that this Rotation may not have been perfect, but we did it nonetheless. So congratulations, Caltech. As an IHC, I know we are thrilled for the class of '27 and thrilled to have them in

each of the houses. If you have any questions or want more details about Rotation, please reach out to me at selam@caltech.edu

Grad and Postdoc Unionization Effort: What's at Stake?

Elina Sendonaris, Aditi Narayanan, **Matthew Langley,** Himanshu Chaudhary, **James Mullahoo** Opinion

The California Tech

Following the C/GPU majority support rally at Caltech Hall, discussions about grad and postdoc unionization have become increasingly urgent. We are writing to endorse the movement to form a labor union for graduate students and postdocs at Caltech. Our research is diverse, spanning microbiology, environmental science, systems biology, quantum optics, and gravitational physics. Forming a union would empower us to negotiate better working conditions, which in turn will improve our ability to produce world-class research and teach world-class students. We can learn from our colleagues at institutions like University of California Los Angeles, University of Southern California, and MIT to build a strong union that supports all grads and postdocs—both by making concrete gains at the bargaining table and building a stronger community.

Unions are composed of workers and are fundamentally democratic organizations that serve to improve working conditions and preserve positive workplace policies. Over the years, and especially as the unionization campaign has ramped up, we've had many conversations with our friends and colleagues about what we'd like to change and what we'd like to protect. Our community wants improvements, like paid medical leave, access to affordable childcare, better career development, and protections for international scholars. Likewise, there are aspects of our work we almost universally want to preserve, like flexible working hours and close relationships with colleagues

and mentors. The results of a preliminary bargaining survey that asked grads and postdocs what they would like to improve or preserve about working at Caltech reiterate what we've heard around our workplaces: Pasadena is an increasingly expensive place to live, and our wages simply don't keep up. Graduate students received an unprecedented salary increase for the 2023-2024 academic year, after our unionization efforts were underway and at the conclusion of the historic academic workers strike in the University of California system. Our wage increase, which put us on par with peer institutions like MIT and Columbia, is a direct example of how efforts to union-

ize are already yielding fruit. Financial burdens are not the only factor preventing many of us from doing our best research. According to the Campus Climate Survey that Caltech conducted in late 2021, nearly onethird of graduate students had observed hostile or intimidating conduct on campus. Across all campus community members who reported hostile conduct to the appropriate authorities, more than half felt that the unwelcome behavior was not adequately addressed. Every author of this piece has friends and colleagues who have experienced bullying or harassment from peers and advisors or worked in physically unsafe conditions. When we are unionized, we will have the power to negotiate stronger safety nets for researchers: for example, transition funding when changing advisors and more robust grievance procedures like those recently won by

UC workers. Both the UC Grad Student Researcher and Postdoc contracts provide representation during the grievance process (usually by a trained peer), require UC to implement interim measures so that the student or postdoc can continue working safely during the investigation and allow appeals to a neutral third party. The mere existence of this process places greater pressure on UC to resolve cases fairly and amicably so that grads and postdocs can continue to have careers in science even af-

ter workplace disputes. Unionizing gives all of including the readers and the authors of this piece, a voice to make these and other improvements a reality. Without a union, Caltech has sole authority to make changes to our working conditions, with or without our nput. With a union, the grads and postdocs we elect to our bargaining teams meet Caltech as equals and exchange proposals. This results in obvious benefits like being able to negotiate better health benefits and vacation days—but it also gives us opportunities for input should the unexpected occur. When the state of Washington made changes to its minimum wage laws, the University of Washington attempted to limit some postdocs to 40 hour workweeks in order to avoid paying overtime or increasing wages. Postdocs pushed back through union contract negotiations and ultimately prevailed preserving the flexible working nours that are so important to effective research. Crucially, this flexibility was written into a legally enforceable contract.

Of course, workplace improvements won't just fall into our laps the moment we form a union Informed participation is critical to success. We are already signing authorization cards, sur-

veying our bargaining priorities.

contract and vote on ratifica-

tion. Our partnership with UAW

will be the authors of its success.

high participation at other Uni-

versities proves it is possible. A

majority of the 3,000 grads at

neighboring USC participated

in reviewing and endorsing their

initial bargaining demands.

USC grads also practice open

bargaining, which allows any

grad student worker to join and

observe contract negotiations.

Their bargaining team keeps

the entire grad student body up

to date on contract negotiations

through consistent updates and

department-level coordinators.

The authors of this piece believe

open bargaining is in the best

interests of the grad student and

postdoc body and endorse the

use of this practice in our future

contract negotiations. Prior to

their historic strike, 36,558 out

This may seem daunting, but

If you have questions or unionization, you're probably not alone! Come chat with your peers at any of the open forums that the Caltech Grads and Post-

"By its nature, a commitment to a union is a commitment to helping those around you and to receiving help from them. It is a hopeful act."

of approximately 48,000 eligible workers at UC participated in their strike authorization vote, with 98% voting "yes". At MIT, over 1,000 grad student employees participated in their contract ratification vote, with just over 95% voting "yes". With a majority of grads and postdocs having signed union authorization cards, we have already witnessed the power of mass participation among Caltech workers. We are excited to see where that energy can take us.

Thanks to academic worker movements that have come before us, we are well-positioned to carry Caltech towards a brighter future. To quote a recent Caltech alumnus who supports our effort to unionize, "By its nature, a commitment to a union is a commitment to helping those around you and to receiving help from them. It is a hopeful act. Our unionization effort is not based on dissatisfaction; if we didn't love our research and our colleagues, if we truly believed there was no reason to care, we would not devote so many hours in a day or words on a page to effecting change. Researchers who don't need to worry about affording rent, accessing health care, or being harassed can more effectively expand the boundaries of knowledge and teach the next generation. It is our firm conviction that unionization is in the best interests not only or graduate students and postdocs, but of Caltech and science as a

docs United campaign is hosting or reach out at



Letter to the Community from the **Graduate Student Council Board of Directors**

Dear graduate students,

Following two letters recently oublished on the Tech, we write to you in our role as Directors of the Graduate Student Council to address concerns about the moderation of the gradstudents@caltech.edu mailing list, which we manage.

We intend for the mailing list to be a useful tool for anyone wishing to disseminate information to graduate students. We have no desire to censor any single person or idea. At the same time, for the communication to be effective, a minimal degree of moderation is required to prevent spam and promote positive conversation. We want to explicitly outline our current moderation policy:

- Only messages sent from @caltech.edu addresses can bypass the filter and get sent to us for approval;
- Messages that contain personal attacks, bullying, harassment, trolling, violent/inflammatory language will be rejected;
- Reply-all messages will generally be allowed through, unless in rare instances that lead to personal backand-forth, where we follow up with the sender to see if the conversation can be The GSC Board of Directors continued in private.

For any message that is manually rejected, the sender is notified and they are free to send a new email. Note that if the message was not sent from a @ caltech.edu address, it would not get to the moderators for approval, hence it will not go through and the sender would not be notified of the rejection. If your message was not sent out and you were not notified. please reach out to the moderators, either the Strategic Communications Director or the Co-Chairs.

We appreciate the chance for transparency and clarity regarding the GSC's policies for the graduate student mailing list and we hope this makes it clear that we do not wish to censor anyone.

If you wish to have the GSC Steering Committee consider any policy amendments or new content moderation rules, please feel free to reach out to us at <u>gscbod@caltech.edu</u>. We welcome the opportunity to further involve you in our governance decisions. As always you are also welcome to join the GSC Board of Directors if you object to any organizationdirections, administrative decisions, or seek to be a voice for students!

This Week in Tech History

Darbs Hold Drop Day

by Ed Bielecki

At the stroke of midnight on Halloween night, a well chilled relative of the Great Pumpkin came to rest near the base of Millikan in the Second Annual Dabney House Millikan Pumpkin Drop Experiment.

Preparations for this strange occurence started earlier that evening with the selection of a suitably sincere jack o' lantern, which was then pre-cooled with dry ice. A search was then made for a cryogenic container to hold the pumpkin for the final cooling. A wood box was procured, and rendered leakless with water.

The pumpkin elect was inserted, and subjected to the first of many liquid nitrogen showers. With 30 minutes remaining, the pumpkin, smiling up through its pool of LN2, was brought to Millikan and transported upwards. With the aid of Security, the roof was attained and the pumpkin was made ready for its moment of glory. With minutes to go, the pumpkin was placed on the edge, with a clink reminiscent of fine china.

The moment came, the pumpkin hurtled, and, despite hitting the grass, produced a most satisfying impact. (The tinkle of fragments could be heard on the roof.) After a brief stop at the impact points, to inspect the remains, the technicians of Dabney Cryogenics retired to the house to start planning next year's drop.

C/GPU and participating in town halls and rallies. After voting to form continued from page 1 a union, we'll need to choose the

grads and postdocs that will rep-Other union-related concerns resent us at the bargaining table cited by graduates include fear and stay informed and up to date of retaliation, a change in stuwith the progress of contract dent culture, or a reduction of negotiations. And when a tenthe standards of Caltech. tative agreement with Caltech is reached, we will all need to take

Some argue that a union would result in labs hiring fewthe time to learn what is in the er people from a lack of budget. GPU, this has not historically means we have legal support and been the case at other univerexperienced negotiators that can sities. Indeed, they posited that help us succeed, but this will be a lack of a union is hurting enour union. We, Caltech grads rollment. and postdocs, will run it, and we

Some of these concerns are shared by Chan, who stated that "the Institute believes that a unionized structure could change the character and culture of Caltech's research and education experience and environment." A union would mean the whole student body would have to negotiate as one entity, which is "counter to Caltech's current, distributed model, which favors flexibility and

freedom.' If a union is formed, it will become part of the United Automobile, Aerospace, and Agricultural Implement Workers of America (ŪAW). This means that Caltech would have to negotiate with this third party organization instead of the students themselves. In contrast to this, Chan stated that

Caltech's small size and current system "allows [Caltech] the ability to directly engage with and respond to students and postdoctoral scholars in a more ersonalized manner."

With or without a union, we need to continue to work to foster an environment where there is open dialogue and transparency and where all gradustudents and postdocs feel supported, are comfortable accessing campus and community resources, and understand how to address their grievances or concerns when needed," Chan said in his statement to the Tech.

Currently, there is a large nationwide unionization movement, which the C/GPU cites as a factor helping spark interest in the union. Many other universities have had similar unionization efforts recently as well, like Stanford, MIT, and UPenn. Caltech has sent several emails to the student body talking about unions and according to the C/GPU, after each of these emails they noticed a spike in people signing at students and postdocs. "At union cards.

In addition to these emails, the C/GPU claims that some in Caltech staff and faculty have been spreading misinformaone faculty member saying that a union would result in

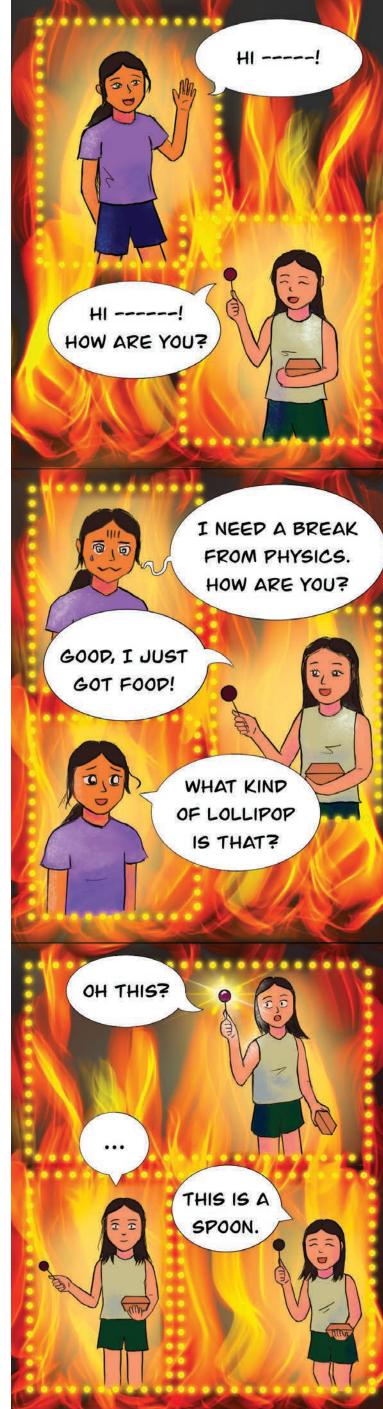
fewer vacation days, a claim the union refutes. In response to this claim, Chan stated that "Caltech strongly rejects any notion that the Institute has engaged in efforts of misinformation, coercion, or retaliation." He went on:

'There has been no effort, nor will there be any future action, by the Caltech administration or members of our communi ty to spread misinformation about unionization. The Institute will not tolerate harassment, bullying, discrimination, or retaliation of any kind. We believe that it is imperative that everyone has accurate, clear information about union representation, and most importantly, that everyone has the right to form their own decision and to share that decision without any pressure from Caltech leadership, their peers, faculty colleagues, or other members of the community.

Whether or not the C/GPU is successful at unionizing, it will have to be a collective decision, made by a majority of graduthe end of the day," Chan said, "graduate students and postdocs have to decide for themselves what makes the most sense for them, for their prestion about unions, including ent and future colleagues, and for the campus overall. This is their decision to make.

November 7, 1975

"SPOON" by Eloise Zeng





Every issue we'll show you a different location on campus. Find the place and find the QR code hidden there to sign the log book and win a fabulous prize?!?! ("On campus" is defined by the bounds of the map on caltech.edu/map/

<u>campus</u>. The QR code will be hidden somewhere within the pictured area.)



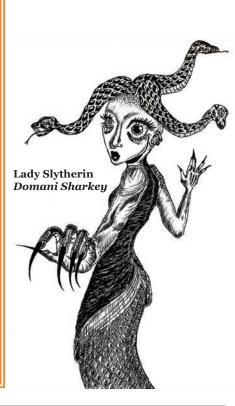
Last

week's winners! >>>

CalGuesser #1 - October 17, 2023 Congrats, you found it!!! Susanna C - 10/19:2023 - Ven'27 Paro CB - 10/19/2023 - Blacker '22 Physic

Art & Photography Spotlight

spooky edition



\$19.99

Bram Schork (Fleming, ME '26)

Last Issue's Winner









Housetalia:

"Something About Fire Alarms"

by Jen Hu

if anyone has requests or suggestions for house activities or interactions to draw, shoot them my way on discord @otaku553!



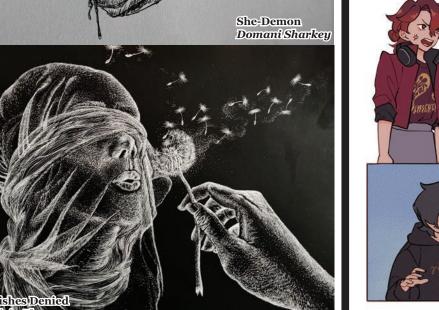
















Enter this week's raffle by using the QR code or the link below:

















R&R, say

62 Brick afficionato

64 Fuel for a juicer?

67 Dinosaur storage

2 Later, poetically

4 Truck, to Brits

25 Brick loves this

3 Low-fat frozen dessert

to others (1)

DOWN



continued from page 1

-Richard Schweddy

What is the best way to celebrate

In the Darkest of nigHts, the $\triangle t$ r gathers, a glanstine epication. they θ than θ in san θ at ione, whish exerces θ wor θ of ροωεν. a Five, a si†μααlis† is blaze, is кіпдlед іп тне неая[†] оғ тнеіг феяемопу THEY WHISDER SECRETS INTO THE FLANES. seeking fanos f fom the unknown as the ϵ гіге дяо ϵ в, so δ о тнеіг δ е ϵ вія ϵ в ϵ п δ Their $\partial \epsilon$ votion. in the $\epsilon \eta \partial$, they ряєраяє то вия η а sa¢яігі¢є, а symbol σε της υηωανεγίης ¢σμμίτμεη†.

Demon Elmo came back from the grave and he's coming for me. How do I save myself from elmo?

-Big Chungus

Ah, young one, gather 'round and lend me your ears, for I shall weave a tale of valor and wit, a fable to thwart the fiery menace of DEMON ELMO

.In a land far, far away, there was a brave soul, much like yourself, who faced the flaming wrath of **ELMO**. But fear not, for the secret to surviving such an ordeal lies within the annals of wisdom and whimsy

First, equip thyself with the armor of laughter, for **ELMO**, though fearsome, cannot endure the mirthful onslaught of jests and japes. Share humorous tales, sing merry songs, and unleash your inner jester. Make ELMO doubt the seriousness of his fiery quest.

Second, seek the counsel of the Wise Wizards of Knowledge, who can be summoned through the magic of books and scrolls. Learn the ancient art of extinguishing flames, for it is said that even a flaming como can be quenched with the wisdom of water and the knowledge of fire safety.

Lastly, surround thyself with the camaraderie of friends and allies. Together, your fellowship shall be a shield against the scorching $\mathbb{R}\Delta G$ ξ \varnothing F ξ→A L mø. Their support and bravery will be your greatest weapon, for no demon can withstand the power of unity

And so, my dear reader, in this whimsical tale, I leave you with this sage advice: to vanguish the DEMON ELMO, arm yourself with laughter, seek wisdom, and embrace the bonds of friendship. For in the face of such fiery folly, these shall be your greatest tools of

How do you pass the Housing Eligibility

-Michael Octavius

The Housing Eligibility Acumen Exam is not your typical test; it's more like a gauntlet, akin to the trials of Hercules.

First, arm yourself with your digital device and a steady internet connection. As you enter the digital exam realm, you're about to embark on a grueling

Each question you'll confront mirrors a formidable undertaking, requiring not only your intellectual prowess but also your unwavering determination. Within this enigmatic exam, there are no easily discerned solutions. Your task is to unlock the concealed code, much like an ancient sage unraveling cryptic scrolls. Just as the mythic heroes of old faced their legendary challenges, you must also navigate this labyrinth of questions with wisdom and insight.

Approach each question with the tenacity of a hero facing mythical beasts. Expect the unexpected, and remember that the most unconventional answer might just be the right one.

The Housing Eligibility Acumen Exam is not for the faint of heart. It's a battle of wits, where you must endure and triumph over the enigmatic questions. Your housing fate is in your hands, and only the boldest will emerge victorious. Good luck, brave soul!

Caltech Timely Warning Crime Bulletin:

"Mental Health Challenges" by Thanhthanh Nguyen



ARC Tip of the Week: Good luck on midterms!

Final Reminder: Graduation Requirement for Seniors **Meeting with the Registrar**

A meeting with the Registrar is required, prior to November 6, 2023, to declare your candidacy for the degree of Bachelor of Science to the Registrar and ensure your timely graduation in June 2024. The Registrar will review your remaining option requirements, and you both will discuss your academic plans. Please e-mail ghb@ caltech.edu to schedule your candidacy appointment. Appointments will begin on Monday, July 31, 2023, and later. Generally, the appointments are scheduled on Monday and Wednesday afternoon (1:30pm- 4:30pm) and Friday morning (9:00 am – 11:30 am). For more information, please see the email titled "Graduating Class of 2024" sent on July 18th 2023.

Course Concerns Form

If you have a concern about a course, please fill out this anonymous form: https:// donut.caltech.edu/feedback/arc.

We will do our best to get back to you in less than a week. Updates / progress on course concerns can be found here (note - this is intended for undergraduate eyes only): https://docs.google.com/spreadsheets/d/1-YaBhyU7ld2cF-oq-y_zaK-ME9ZdTdAVCCv-XxJ8edFI/edit?usp=sharing.

Please see this flowchart for more information on how to report a course concern: https://docs.google.com/drawings/d/1gbPK65NI9yMhA82aoZyIHnLqmpt-97vpuXm4JKiiYJ24/edit?usp=sharing.

Peer Academic Coaches (Deans Tutor) How-To Guide

The ARC has compiled a guide on how to navigate the new Peer Academic Coach (PAC) system (replacing Deans Tutoring) for those who want to become a PAC as well as for those who want to get tutored by a PAC. Please refer to this guide and/or reach out to us if you have any questions: https://docs.google.com/document/d/1K6rzW2RstARtlFksACMElP-LUQpcRKOJj6DoGJTYxd8/edit?usp=shar-

How to Find a Peer Academic Coach

Learn

Review the

material in the

"Finding a Peer

Academic

Coach" module

Complete the

"Tell Us About



Sign Up Self-enroll in the "Find a Coach"

Canvas course. https://caltech.ins tructure.com/enro

All coaches and students use this course to find each other and

schedules sessions





Module



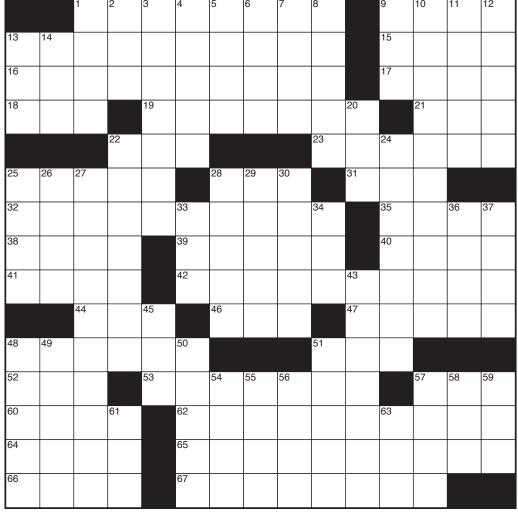
Book It!

Follow the directions on the "How to Schedule..."page to book your coaching session.

If you can't find a time you can email a coach to request a new appointment (All sessions must be booked through Canvas)

Succeed!

The California Tech Crossword: "Topology"



1 Rescues from a bad situation 9 Like some pots 13 The links (0) 15 Do programming work 16 Decadent Indian flatbread 17 Drape holders 18 Figs. in sports reports 19 Nickname for a slow spouse 21 Baby goat 22 Like many crafts: Abbr. 23 Where molten rock meets the surface (1) 25 You might afix one 28 Atlanta-based public health

agency: Abbr. 31 Liposuction target 32 Stately sushi orde 35 "Bye" in text speak 38 L.A. museum to see some modern creations 39 Topological descriptor of the number of (holes) in the answers to 13-, 23-, 48-, and 65-across 40 Best when tied 41 Cue sport 42 Kind of deal 44 Hypothetical place in a

46 AARP members 47 Hall's partner 48 Cutting component of a classic 51 Key abbreviation when fol-

lowed by "L" 52 Popular Youtube interview 53 They saw a spike in business ____ gobi, potato-based during the "Barbenheimer" Indian dish 27 Feature of many a brunch phenomenon 57 Where one might get some

28 They make the show go on 29 Popular German street food 60 One of Yosemite's 700,000+ _kebab 30 This puzzle has many of these 33 Sessions and Barr, e.g.: Abbr. 65 Food chain whose main item 34 Time in your zone, in brief

is breakfast to some and dessert 36 Nostalgia yearns for the days 37 Allows 66 "Lights out" military song 43 Japanese potent potable

45 Advocacy grp. whose logo is a yellow equals sign on a blue background 1 Common deli sandwiches, in 48 A not-so-innocent response to flattulance, colloquially 49 Chance track "____ Butter Kisses" 50 Suave and smooth

5 Southwest basketball franchise 51 Latin plural for field 6 Type of exam 54 The Great Fire of Rome took 7 Financial services provider for place under his purview 55 France's largest civil engineer 8 Almost the top of the hour

9 Shorthand for a popular South-56 A type of pit ern Rock band 57 Victory, in deutsch 58 No need for Teflon coatings 10 "Check it out" 11 Contribute a point with this in your arsenal 59 Lowe's alternative 12 "Go for it"

13 Currency used at the LSE 61 Van Halen, Sheeran, etc. 63 Letters which, when pro-14 "Peace ___" 20 Santa helper nounced, are phonetically equivalent to a word they compose 22 Treats sea water 24 Feature of many an e-girl

Caltech Cross Country Finishes Third and Fifth at SCIACs Meet

Elizabeth Field Sports

Caltech's men's and women's cross country teams competed in the championship meet for the Southern California Intercollegiate Athletic Conference (SCIAC) this past Saturday, October 28th. The men's team competed in a 8K course and the women's team in a 6K

The Caltech men's team placed third in SCIACs, despite their anticipated ranking of fifth. Rohun Agrawal (ACM, '25) pulled out a second place performance, with an overall

time of 24:53.4 and pace of 3:07/K. Joey Litvin (Math, '24) came closely behind in tenth place, with a time of 25:20.0 and a pace of 3:10/K. These, along with many other impresperformances from the team, ranked the men just below Claremont Mudd Scripps (CMS) and Pomona-Pitzer (PP) which have dominated the SCI-AC in cross country, along with many other sports, for many

The women's team also finished strong, with a fifth place overall ranking. Gigi Pistilli (Biochem, '26, Ricketts), Sophie Dalfonzo (BioE, '25, Venerable), Lauren Garriques (ME,

'23, Venerable), and Katy Chu (CS/BEM, '24, Blacker) finished as the top four for Caltech and 16th, 18th, 20th, and 24th respectively in the SCIAC and all four coming in with times under 24 minutes.

Based on their performances Agrawal and Litvin were named First Team All-Sciac and Pistilli. Dalfonzo, and Garriques as Second Team All-Sciacs. The men's team let out their best performance since WWII, and both teams are sending multiple runners into their post season meets, competing in the NCAA West Regionals on November 11th.

Women's and Men's Soccer End Their **Seasons Strong** Solgaard claiming the Career Goals record for the Caltech

Elizabeth Field Sports

The Caltech women's and nen's soccer teams played their final games of the 2023 seasons this past Saturday, October 28th. Both teams played at home, honoring their seniors with their senior day ceremoies and their performances.

The women's team played first, at 11:00 am, against Occidental College. Caltech started the game strong, with a record setting goal by Jennifer Solgaard (EE, '25, Lloyd) in the enth minute. This goal marked

women's soccer program, a feat she accomplished by the end of her junior year, no less. Caltech was able to hold down the half 1-0, with a series of impressive

saves by first year goalkeeper Haleigh Gardner (ChemE, '27 Fleming). In the second half Occidental pressed hard, their spot in the SCIAC postseason tournament dependent on their win, and came at the team with a total of twenty shots and two goals throughout the game. However, a goal by Marie Choi-Schattle (ME, '27, Fleming) in the 84th minute tied the game 2-2 and led to an intense last five minutes as both teams fought to break it. After a final shot by Choi-Schattle that was collected by the Occidental goalkeeper, the game ended in a tie, improving Caltech's record within SCIACs and preventing Occidental College from competing in the tournament The men's team followed in the afternoon, playing Claremont Mudd Scripps (CMS), the third place team in the con-

ference. After being hit with a 1-4 loss earlier in the season, Caltech held the game o-o until the 41st minute of the first half. Although it was looking down, Caltech dominated in the second half, with 7 shots and a goal by Etienne Casanova (CS, '26, Fleming) tying up the game in the 47th minute. This brought their record to 6-6-4, the best record the Caltech men's soccer team has seen in program history.



Photo Credit: gocaltech.com

8

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Balancing Equations and Laps: The Life of Sam Small, BioE Major and Star Swimmer

Skye Ruedas Humans of Caltech

Caltech is known for its rigorous academic environment, but beneath the surface lies a community of student-athletes who defy the odds daily, balancing their passion for their sport with the demands of academic life. One such athlete is Sam Small, a junior BioE major, minoring in Chemistry. His journey provides an enlightening perspective on what it's like to be a student-athlete at Caltech.

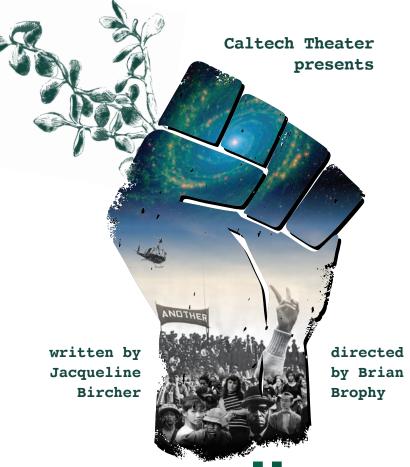
Waking up at 6:30 am, Sam's day begins with a morning lift in the gym from 7 to 8:30 am. Refueling quickly with a coffee and snack, he goes off to his 9 am lab meeting. As a BioE major, Sam's academic plate is just as full as his athletic one. After his lab meeting, he makes some time for studying and lunch before attending his 1 pm to 2:30 pm class.

Sam's commitment to swimming is evident. Not only does he along with the other swimmers practice every day from Monday to Saturday, but they also attend two morning gym sessions a week. These practices and sessions build both their physical abilities and their bond with the team – a close-knit group that feels like family.

Sam's athletic journey impacts his social life too. The swim team, for him, allows him to be part of a community with shared goals and aspirations. This unified team provides companionship, mutual support, and lasting memories. On the other hand, there are trade-offs. The dedication to his sport occasionally keeps him and other swimmers from joining certain activities, like house ski or beach trips, especially during the season. Yet, for Sam, the personal growth and team victories make it all worthwhile.

Post-practice, Sam grabs dinner and then shifts his focus back to academics. His evenings often involve working as a TA for a lab class from 7 to 10 pm. Despite the long day, Sam's dedication to both his studies and sport is clear.

Through the eyes of Sam Small, we're granted a glimpse into the demanding yet rewarding world of a Caltech athlete. His story shows the commitment that defines Caltech's athletic community. Whether it's the support of a team that feels like family or the relentless pursuit of academic and athletic excellence, student-athletes like Sam show the spirit of Caltech.



another revolution

starring Skyler Ware, G6 & Michael Gutierrez, '25

Wed-Thurs, Nov. 8-9 @ 7:30 pm Friday, Nov. 10 @ 4:30 pm Beckman Institute Auditorium



This production was made possible with funding from Katie & Jose Helu and with the help of donors and Student Affairs

For tickets and further information link to QR code

The California Tech

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Can you spot the amogus (இ) in this issue?

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