





"WHAT SERVICE SHOULD THE GOVERNMENT OFFER WHILE WE LIVE UNDER THREAT OF COVID-19?"

Welcome to the last issue of **mathNEWS** for Winter 2020. It also happens to be the first digital-only issue, unfortunately by necessity rather than by choice.

For those reading this issue who are not living in the current times, I will offer a quick summary of the situation.

COVID-19 is devastating the globe, Ontario schools are closed for the rest of the term and UWaterloo is making its Spring 2020 term completely online. Almost all campus buildings, including MC, will have been closed at the time of this publication. Our usual campus printing services are unavailable. Everyone is being encouraged to social distance. This issue is only here due to the dedication of the editorial team to the spirit of **mathNEWS**.

Now that everyone's up to speed, I hope you understand how difficult it was to make this issue. We held a production night remotely, via both Slack and Instagram live. Tons of people attended, actaully! Please follow us on Twitter and Instagram during these trying times @uwmathnews, I expect we'll be much more active on there next term when campus is closed.

Well, this is my last ever issue of **mathNEWS** before I graduate from this godforsaken university. So I'm just gonna reminisce for the rest of this **mastHEAD**.

I can't believe this is the end, y'all. I've grown so much as a person since coming to university, and so much of it was directly related to being part of **mathNEWS**.

Being a mathNEWS editor allowed me to gain access to the solace of the mathNEWS office, the one oasis on campus where I could relax and truly call my home, moreso than any of the temporary 4-month building sublets I had in this city. It is the place I know to be constant, even with the rest of campus under construction. It gave me a close circle of mathNEWS editor friends, and friends I recruited to join mathNEWS, and at this point pretty much everyone I care about at UW has some association with mathNEWS. God fuck I love mathNEWS I'm gonna cry. May you all have a good end of term. Farewell.

Min Zhu (itorED) Editor, math**NEWS** for W17, F17, S18, W19. W20

GEORGE LAMBROU FREE HUGS (As many as you can give me.) ALYSSNYA 24/7 lcbo mead please and thank you THE EUROBEAT-'EM-UP Jobs. Ken Davidson, for only he can save us from this No new services, but I'd like to see them increase THE DEPRESSIMIST output of the existing Panic & Fear one. **UW UNPRINT** Bane masks for the people. **BEYOND META** An escape room feature. A MATHEMAGICAL A regular supply of isomorphisms PSYCHIC AND ASTROLOGER Nationalized pigeon delivery service. Birds can't VARIOUS PSEUDONYMS UBI, PHAITHACAIC, a 'em afterwards too. UBI, pharmacare, actual democracy. We can keep **HERBIE** A shit farm so we can go take a shit AND they'll have toilet paper **SWINDLED** | Software As A ITORED Testing. Like, final exams. **CONFUSED** Daily goose cleaning. Our own personal underground bunkers. It'd be *so cool* like *seriously* just imagine the reaction of your out-of-country friends when you tell them you have *A FREAKING UNDERGROUND* TERRIFIED **BUNKER** and you got it for **FREE**. And you have it **ALL**. **TO**. **YOURSELF**.

ARTICLE OF THE ISSUE

The final article of the issue award for volume 142 goes to The Resident ENV kid for <u>The Betting Board at St. Paul's</u>. After all, what's the point of a global crisis if you can't have some fun with it? Gallows humour is the best kind anyway, as we all know.

I'd remind you where to pick up your prize but, uh, yeah maybe don't do that anytime soon. We'll all give you a virtual round of applause in the meantime.

Anuj Opal (swindlED) Editor, math**NEWS** for W18, S18, F18, S19, W20

mathNEWS (print ver.) is dead. Long live mathNEWS.

MIN ZHU, mathnews Editor for Winter 2020 ALONG WITH JAMIE ANDERSON, TERRY CHEN AND ANUJ OPAL

mastHEAD v142i5, FULL VERSION

REPRINTED BECAUSE THIS WAS SUPPOSED TO BE IN THE LAST ISSUE, DAMMIT

Welcome back to yet another edition of itorED using the **mathNEWS** mast**HEAD** as their personal journal.

This time it's at the request of no fewer than two contributors, so I can pretend I'm not just writing this because of my huge ego as usual (though I do admit their requests have further inflated my ego accordingly).

Today, I will recount the tale of the most on-point birthday present I have ever received.

As those close to me are aware, I love grocery shopping and getting a good deal. (When I bought a 10lb bag of potatoes for \$2 one time, I kept bringing it up in regular conversation for the next two months.) As such, a fitting birthday wish that I conveyed to my dear friend extrovertED was for her to drive me to the holy land of T&T so that I could purchase groceries and scope out the clearance section.

There, I found a prepackaged version of a food I had eaten many times in my childhood, 红烧烤麸. This is a Chinese vegan dish, popular among Buddhists, consisting of wheat gluten, wood ear mushroom, lily flower, and other delicious yet healthy ingredients. My dad always complained about how arduous it was to make this dish, yet he would do so whenever I requested it. Having not lived at home since early 2015, I missed eating it, and fantasized about the food regularly.

I was lucky that this specific food was marked down from \$3.99 to \$0.99, merely a quarter of its original price! I immediately purchased 12 packs (along with other grocery needs), and went home to judge its flavour. Eating it cold out of the bag, I was overwhelmed by the memory of sneaking down to the kitchen in the wee hours of the night and eating pieces of 烤麸 straight out of the fridge. Upon this, I resolved to return to T&T soon and buy out the rest of their stock.

The next day, extrovertED came by to eat curry, and offhandedly offered to drive me back to buy more 红烧烤麸. I excitedly accepted.

It was not long until we arrived, and my dreams were shattered. The entire section of the refrigerated section that the 红烧烤麸 once occupied was empty, and the sale tag was also gone. Someone else had gotten to it before I did. Heartbroken, I left the grocery store without buying a thing.

However, that was not the end of the tale, You see, dear reader, the very next day, extrovertED took a trip to T&T with

her sister. There, they found the 紅烧烤麸 section mysteriously restored, and extrovertED immediately bought out the entire stock. She then presented it to me, upon which I was unable to form words due to the amount of pure appreciation I had for her in that moment. She had done the impossible, and gotten me a gift that satisfied me more than I thought humanly possible.

After all, being a co-op student far from home makes it hard to accrue a great wealth of physical possessions due to all the constant moving. It follows that I prefer not to have to carry around the gifts I receive, meaning consumables are generally safe to give.

Otherwise, I find that I am normally quite fortunate in that I am able to buy for myself pretty much anything that I want to own, and that when I don't it is for a reason. When I don't buy something because it is expensive, I feel no better knowing that someone else bought me the expensive thing and spent their hard-earned money on something that I would not derive the appropriate amount of appreciation from. As such, I highly appreciate opportunistic gifts in which someone else finds something perfect for me that I would love to have had I known of its existence, but which I do not and so am unable to appreciate until they deliver such a gift to me.

In general, I find that the best gifts for me are either a hand-crafted heartfelt message boosting my own ego, or something that I would myself obtain had I had the ability.

The beauty in extrovertED's gift was that it was the latter, but also tapped into many of the core values I hold myself, such as good food, childhood nostalgia, and a good fucking deal.

Never again do I expect to be as overwhelmed with emotion as I have been upon receiving 10+ packs of红烧烤就in one go.

And honestly? I don't want to be. This is the type of situation that happens maybe once in a lifetime if you're lucky, and boy oh boy did I feel lucky.

And thus concludes the tale of the most spectacular, fitting, lovely birthday present I have ever received. Thank you once again to extrovertED for knowing me well enough to do what is basically equivalent to heterosexuals buying out the entire Valentine's chocolate section of a store, but with 红烧烤麸.

itorED Editor, math**NEWS**

This blackBOX was here all along, I swear.

లో లో FLAG REVIEW 8: SELF-ISOLATION EDITION తో లో

FLAG REVIEW

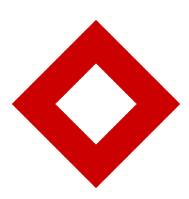
Keeping with the theme of everyone's plans being cancelled or postponed, I may as well follow suit. If no one is around to read a flag review, did a flag review even take place? I had planned a peculiar set of flags to end this term's **mathNEWS** issue, but since no one would be around on campus to read that, the potential amount of entertainment became decreased and thus there would be no point in publishing that this time around. So, here is a mish-mash of different flags that I have had the pleasure to learn about recently. I tried to theme the flags I chose around the stuff happening recently but I couldn't find enough flags to even theme. Nevertheless, let me present some unconventional flags.

Here is my rubric, like before:

The flags will be scored out of 10 stars, with five of those being my holistic subjective score, and the other five being based on each of the five basic principles of flag design as defined by the North American Vexillological Association (NAVA). They are:

- Keep it simple
- · Use meaningful symbolism
- Use two or three basic colours
- No lettering or seals
- · Be distinctive or be related

RED CRYSTAL FLAG



I believe this is the first time something international has been reviewed here. This is also not really a flag, but an emblem that has been put into a form of a flag, but since this and other Red Symbols can be used in flags, I'll treat it as such. If you still do not know what this symbol and other Red Symbols are, let me introduce this as the lesser-known Red Crystal, the sister symbol of the Red Cross and the Red Crescent.

The Red Crystal was added to the available list of emblems for use by the International Red Cross and Red Crescent Movement, as a neutral protected symbol. Actually coming up with a neutral symbol that will be internationally recognized and protected is a challenge on its own, and there is massive praise to be given for the efforts that made this symbol.

Keeping the same recipe of placing the emblem on a white background, it also keeps the simplicity. Simplicity is key when it comes to a symbol like this. Simple enough to be recognized widely by everyone, and simple enough for anyone to make one in whatever necessary circumstance. A square fits the purpose perfectly. Aesthetically speaking, it also pays an homage to the original Red Cross symbol by orienting the square in the same manner as the ends of the Red Cross.

Overall, it is designed well and serves it purpose, although it has not seen the same level of prominence on the international stage as the Red Cross or Crescent.

Design Score: ★★★★

Subjective Score: ★★★★

FLAG OF KANEPI, ESTONIA



This flag had gained some international notoriety a few years back, and it was only recently that I came across this flag again. Having not learned the lesson presented in some of Internet Historian's Youtube videos, the town of Kanepi decided in 2018 that its citizens could vote online for their town's new flag and coat of arms. Despite being a town of about 5000, there were triple the amount of votes. The reason behind the particular choice of leaf used, is because the word *kanep* in Estonian means cannabis. Cannabis currently remains illegal in Estonia.

In the form similar to the Canadian pale except with different widths, this flag has green bars to the side with the green cannabis leaf in the middle. It goes straight to the point in meaning. It is good that the design of the cannabis leaf is much simpler than the design I've seen used in the Canadian flag but with the maple leaf replaced by the cannabis leaf. From afar no one would ever be able to discern such small detail, and I'm thankful that whoever designed this originally, made that decision.

My only disappointment with this flag is with the choice of green used. The green used on this flag is of a lighter shade than the choice of green used for the accompanying coat of arms. A darker shade of green works much better for this flag. It would make all the components of this flag stand out against the white much better.

Other than the colour choice, this flag has been designed really well considering the collective internet came up with the idea to vote for it for the town of Kanepi. Let's hope the actual residents don't change this down the line.

Design Score: ★★★★

Subjective Score: ★★★★☆

I was due to return to campus for the Spring term and maybe I was thinking about helping out **mathNEWS** proper instead of only writing articles. I guess that plan is postponed for now too.

I hope everyone stays safe out there. I know I have, since it turns out my lifestyle this term apparently can be described as "self-isolation" quite accurately. Who'd've ever thought a pandemic would happen? Certainly, this was not the way I ever expected the term to end. Can't wait for what April will bring to the world. Also, there better not be anyone going outside to any 420 gatherings anywhere. Don't let the Kanepi flag give you any ideas. Finally, don't forget to wash your damn hands and clean your damn phones.

boldblazer

SWINDLED, SIGNING OFF

Welp, this is it for me folks. It's been a wild ride ever since Beyond Meta dragged me to my first mathNEWS production night back in 1B. Looking back, I'm pretty sure the very first thing I ever wrote for mathNEWS managed to get rejected good thing that didn't turn out to be an omen of things to come.

mathNEWS has been by far one of the biggest parts of my undergrad. Even though I stopped giving a shit about my degree what feels like decades ago, I'm still not quite ready to be done with mathNEWS. It's helped me make a lot of friends (fewer enemies than I'd hoped though), and all-around been a great mix of two parts laughter and one part stress. The saddest thing of all is that I'll no longer be able to call myself Editor with a capital 'E' – I'll be able to call myself Editor Emeritus with two capital 'E's. Suck on that Terry¹.

Who knows, maybe I'll be able to convince itorED and staplED to start that **mathNEWS** spin-off once we're all living in the same city. In any case, I'm sure this won't be the absolute last you see of me (I've still got that article I've been working on since 2018 to finish), so see y'all around I guess.

Anuj Opal (swindlED) Editor, mathNEWS for W18, S18, F18, S19, W20

1. I'm just kidding u know I love u bby <3

RE: FWD: RE: RE: REEEEEEE!

For the tenth time, I'm sorry I hit "Reply all" without putting all the emails in bcc as opposed to cc. I am aware that all the writers are mad at me for not being careful about my email sending practices. But please, stop insulting me and spamming my inbox with death threats. I have midterms to write and I'm trying to let go of my Earthly attachments. I suggest you all do the same. Thanks.

Automatic Message from Gmail:

It seems like you forgot to attach a file.

You wrote "attachments" in your message, but there are no files attached. Send anyway?

This message has been left as a draft

A Mathemagical Psychic And Astrologer

Ever wonder how much filler is in a given issue of mathNEWS?

Just count the number of items in all the "N Things" articles.

Oh, and these little black**BOXED** quotes.

A math**NEWS** EDITOR WHO
JUST WANTS TO FINISH
LAYOUT AND GO HOME

N BOPS TO LISTEN TO WHEN YOU WANT TO CRY YOURSELF TO SLEEP, SIMP OR STUDY

As students at the University of Waterloo, I've realized that most of us probably cry a lot during our spare time. If I'm going to bust a phat tear, I'd prefer to do it with some good music playing in the back. Music creates the soundtrack to our lives. And, if the post-reading week depression is still hitting you hard even now with finals approaching or you've been simping for someone pretty badly or you really just need to study, I've got your back. And with that, I present to you: "n bops to listen to when you want to cry yourself to sleep, simp or study".

- 2. Purity by A\$AP Rocky feat. Frank Ocean—You're probably questioning why an A\$AP Rocky song is at the top of this list but hear me out. A\$AP Rocky is one of, if not: my favourite rappers. On god I could never rap to save my life, but I genuinely love A\$AP Rocky and his music so much. Before I became a fan of his, I had only listened to Praise The Lord. However, a classmate of mine from my Families in Canada class last year sent me her A\$AP Rocky playlist to convert me into a fan, and it worked (thank you Serena). Purity is one of my favourite songs not only because Frank Ocean (who I also love) is featured on this track but because it's such a powerful song. Hearing Frank Ocean rap alongside A\$AP Rocky just hits different. Both artists shine so well on this track, it's just such an amazing collaboration. The beautiful "I gotta find peace of mind" sung throughout the song is a wonderful component of the song. I just love this song. Definitely check it out.
- 3. Numb by Men I Trust Men I Trust is a Candian pop band that has definitely been a favourite of mine these days. I started listening to them when I first heard the song Show Me How. But recently, I found Numb in my Youtube recommendations. Every aspect of this song from the soft, dreamy vocals to the guitar instrumentals is so calming. It's just so damn beautiful, I swear. If you're not crying while listening to this song, you're probably studying in the library or maybe just staring at the ceiling at night having an existential crisis. This song is just breathtaking, ugh. So. damn. good. Something about this song is just so comforting and it just lets my mind feel at ease.
- 4. Your Best American Girl by Mitski Mitski really is just an ageless entity. Her music is so powerful and so genuinely captivating that it just makes you want to cry enough tears to recreate Niagara Falls. Your Best American Girl is the perfect song to listen to when you need to curl up all on your own in a cozy blanket after a long day. It's just such a perfect song to cry to.
- 5. *Coffee* by Beabadoobee—The soft acoustics of this song will make you feel like you're one of those art hoes who own a yellow Fjällräven Kånken backpack

- and have an insane amount of money to the point where they can afford to buy a different fancy artisanal latte everyday at their local cafe while they're bullet journaling in a costly Moleskine journal with pastel mildliners they bought from Japan. I'm not really sure how else to describe it, haha. It's a very nice relaxing song to study and fall asleep to. I'll just leave it at that.
- 6. Sugar by BROCKHAMPTON (slowed down + reverb version) — The original version of *Sugar* is already a phat bop in itself, and you've probably already listened to it whether you found it through the trending Tik Tok dance or your local BROCKHAMPTON stan who thinks listening to them can count as being an actual personality trait. If you're currently thinking "hey I haven't listened to it yet" you're either a liar or you've been living under the biggest rock these past few months following the release of the Ginger record. I found the slowed down + reverb version in my Youtube recommendations after listening to a lo-fi hip hop playlist. This version of Sugar is even more calming/ serene than the original, both versions are good: however I'd advise you to give this version a listen if you need to stop everything you're doing and just have a good cry. You feel?
- 7. Self Care by Mac Miller—The late contemporary R&B, hip hop rapper and singer, Mac Miller has and continues to be one of my favourite musicians to listen to. Self Care is a timeless hip hop song from the record, Swimming. The genius work put in the lyrics of this song allow you to realize that they are so solemn yet so addicting, ugh his impact. Miller's tragic passing should not overshadow his great contributions to the music industry. Take a listen to this song as well as the rest of his discography when you get a chance, it's worth your time: that, I can promise you.
- 8. Hardest To Love by The Weeknd—Abel Tesfaye has dazzled our lives with yet another captivating album. *After Hours* is an amazing album, that I enjoyed listening to a lot. *Hardest To Love* has got to be one of my favourite tracks on this record, it's a great song to simp to. From the entrancing vocals to the lyrics to the melody, you **will** enjoy this song.
- 9. Blessed by Daniel Caesar Daniel Caesar is no stranger to most zoomers. He is such a genuinely talented singer that has contributed so much enjoyable music to the soul genre. This track is from his record, Freudian released back in 2017. Caesar's soft yet strong vocals in this song will either make you cry or make you want to fall in love. There's no doubt about it.
- 10. Yes I'm Changing by Tame Impala—I went to go see Tame Impala live in concert this past July, and let me tell you..PHEW what an experience that was.

Everything from their performance to the visuals and the lighting to the audience who was just absolutely vibing made the concert so amazing. Yes I'm Changing as well as Eventually are some of my favourite tracks from their entire discography but especially, their Currents record. Yes I'm Changing is a song that makes you feel nostalgic for moments you didn't even personally experience but it allows you to feel vulnerable and be open with your emotions to feel anything and everything.

- 11. watch you sleep by girl in red—I'm not even going to lie, I discovered girl in red's music through watching those POV Tik Toks using the song We Fell in Love in October. Sometimes the lyrics "you will be my girl my girl my girl" still get stuck in my mind. I don't mind it though, the song is an absolute treasure. watch you sleep is a really calming song that I think is perfect to play on rainy days or when you're having trouble trying to fall asleep. I know you're probably sick of me using this word but this song is just so damn dreamy. I love it.
- 12. Landslide by Fleetwood Mac—If you don't know this song you're either not like painfully caucasian, or you just don't enjoy listening to classics. Landslide is like a nice warm hug but in song form. The melody of this song stands alone as super comforting, however when you combine it with the lyrics: you ALREADY KNOW you're about to cry. This song is perfect to listen to when you need to let out a good cry.

That's all I have for this list and for the rest of this term I suppose. It's been a fun, short lived time writing these playlist listicles for *mathNEWS*. I hope that through this article, you were able to find some new music to listen to and enjoy as much as I did and I hope you find some sense of comfort within these songs like I certainly do. Whatever it is that you were seeking to find through reading this article, I hope you found it. Good luck on all your finals gays and girls. I hope that everything works out for you and that you're doing well and that you're happy and healthy.

Take care !! Peace out girl scouts (or boy, non-binary, gender fluid or whatever you wish to identify with scouts),

HOE Chi Minh

I disagree strongly with whatever work this quote is attached to.

RANDALL MUNROE

MAN OVERWHELMED BY ATTEMPTS TO COOK BEETS.

This past week a local man went to the grocery store to buy food, only to find all his usual staples gone. All that remained were beets, lots and lots of beets, and so in a moment of panic this citizen purchased these beets before realizing that he had no idea how to prepare them. He googled for recipes and found himself inundated with more methods than he could grasp. Feeling lost and out of his depth in a moment of desperation the man decided to reach out, to the most unlikely of places: A facebook group, hoping that he could reach a real person to answer the most pressing question



Reactions to this question were mixed. Some people actually provided useful answers, other people scroll by without comment, even more laughed and some people even cried.

The people that cried, cried because of how beautiful the moment was. This citizens in one sentence had manage to perfectly capture the panic, the absurdity, the strange ways our current times affect us in the smallest but personal ways.

We salute this fellow human for creating such succinct beet poetry.

Beyond Meta

2020 WATCH

SUBTITLE QUARANTINED TO PREVENT THE SPREAD OF DISEASE

Well, the primary's basically over. Michigan's come and gone, and any sign of a Sanders comeback has failed to materialize. Besides, the combination of Biden's fairly solid victories and the impending collapse of civilized society have put the primary on the back burner. Whoever's President, I hope they enjoy dealing with this.

Instead of pretending to be able to say anything about the general election being held eight coronavirus-infested months away, I'm just going to say thanks, if you stuck with me through this series. I've always loved talking to/at people about politics, and I'm glad you were here for the ride.

ME, MY ROOMMATE, AND TWO WEEKS OF GLORIFIED HOUSE ARREST

SATURDAY MARCH 7

"Gee, Satie, what's with all of these fancy dried beans?" I questioned, lifting up and inspecting a bag of Good Mother Stallards.

"I'm planning on having a dinner party in two weeks. I'm thinking bean stew. Looks like my shipment of beans came early though."

"Bean stew sounds nice. I could go for some cassoulet. Wait, dinner party? You have friends?"

He frowned and took the bag from my hands. "L'audace," he muttered.

"I joke. But the pantry's looking pretty full. That sure is a lot of beans."

MONDAY MARCH 9

"Welcome back."

"Hey. Have you heard the news? Italy's under lockdown," Satie said, shoving a CBC headline on his phone into my face. "C'est insensé."

"No, I haven't heard. Spooky. How was your evening?"

"Alright. There was interesting broccoli pizza."

"I can tell. You got something stuck between your teeth. How's your family doing?"

He tutted, picking at his gums with a toothpick. "They're okay. But it's bad over there."

WEDNESDAY MARCH 11

"I think you should get groceries, Robin."

"But I just went this weekend. Plus, there's hardly any space in the pantry," I said, gesturing to the bags of beluga lentils at the forefront of the shelves. "And the fridge."

"You can put these on the table. Here, let me."

"I'll get groceries on Saturday," I said amid the racket of crinkling plastic.

"That could be too late."

"It can't be that bad, Satie," I huffed. "I'm busy tonight anyway. I have a midterm on Friday to start studying for."

THURSDAY MARCH 12

My phone lit up with a Messenger notification. It was from Satie. It was strange—I didn't think we were friends on Facebook. I didn't even know he had a Facebook. But that was besides the point at the moment. The contents of his message, in demanding all-caps, captured my full attention:

USA CLOSES BORDER TO EUROPE NBA CANCELS SEASON AND TOM HANKS HAS CORONAVIRUS???

The gravity of the pandemic had been sinking in all day. It was all anyone around me seemed to talk about. It seemed as if we'd reached a tipping point. Reading Satie's message, my stomach lurched.

I went back to my apartment. Satie was there; I learned that he'd been inside the entire day.

"Best not to go out. C'est dangereux. And, I have an inkling—" He took out a pack of playing cards from the breast pocket of his jacket, strip shuffled the deck for ten seconds, and took a cursory glance at the top card."—That the university will close tomorrow." He stood up and returned the cards to their pocket. "Many American colleges have announced their closure. Lots of Canadian ones too. It's only a matter of time for us."

He went into his room and came back with what seemed to be two 100-year-old gas masks. He gave one to me and put the other on. His dark brown eyes normally evoked something of an insect when magnified by his coke bottle glasses—having donned the mask, he seemed to metamorphose into a mutant fruit fly.

"Where'd you get these?" I asked.

He pulled out his phone and started typing. Soon, there was another message from him on my lockscreen:

doesn't matter. i suggest you wear this outside. prevent the spread.

"Satie, if your intuition right and Waterloo closes tomorrow, will you be going back home?"

He sent me another message:

no. and it's not intuition—it's fact. the cards don't tell lies.

FRIDAY MARCH 13

"How was your midterm?"

"Fine," I said. "I could've done better if I wasn't so distracted these past few days. After the university made the announcement around noon, people really wanted the prof to call it off. He wouldn't do it though. Everyone I know has gone home already. I feel like I'm the only person left in Waterloo. Well, besides you, of course."

The sound of his sniffle was drenched with static. "Your midterm—that's unfortunate."

"Are you sure you're okay? You don't sound so hot."

"Yes. I'm fine. Thank you for your concern," he sniffed. "Yearly allergies. I will be back to normal within a-ah-AH—"

His sneeze detonated through my phone's tinny speakers, blasting my eardrums.

"...Ah, excusez-moi. I will be back to normal within a week."

"But I don't understand. If you've stayed inside all day, what are you getting an allergic reaction to?"

"There's also a chance this is a cold," he said. An involuntary shiver went down my spine. "I will take no chances. Now if you have no more questions, I'd like to hang up."

"Sure. Goodbye."

"Adieu."

Satie hung up. I realized I hadn't turned on the lights yet. My room was so small in the thick dark.

SUNDAY MARCH 15

"I thought you were going to buy food yesterday?"

I grunted, pushing through the apartment door, holding bulging bags of groceries with Satie's gas mask wedged underneath my arm. "I wanted to wait a day. It was just insane on Friday, apparently. So sue me. And what they're saying about the rice and pasta and toilet paper is true. There's nothing on the shelves. I remember you saying that you wanted some tomatoes and Toulouse sausages, so I got those."

"Merci beaucoup," he said before entering a short coughing fit that blew up my phone with more static. "Did you wash your hands?"

"On it right now. Man, it's going to be an interesting week."

MONDAY MARCH 16

"My God, it hasn't even been one day and I'm already bored," I yelled into the phone over the cacophony of a banging piano from within his room. Satie had been playing all day.

"Perhaps you need better hobbies. I, for one, look forward to devoting my newfound time to writing and—" He hammered out a particularly dissonant and thick chord that made me jump. "—*Musique*. How was that just now?"

"It didn't sound pleasant."

"Tch. You don't understand art. It's avant-garde!" he said hoarsely, before hanging up abruptly.

"Jeez, that guy," I muttered. But he had the right idea. Who knew how long this glorified house arrest could last? And without any classes or assignments due this week, I suddenly had a lot of free time. Maybe it was finally time to break out my dusty copy of *Pierre Hermé Pastries*. Ever since midterms started ramping up, I'd left my patisserie practice to the wayside. Now I was excited to get back in the groove. Choux pastry, lychee and raspberry compote—I could already taste their delicate flavour on the tip of my tongue.

TUESDAY MARCH 17

"Today's one for the history books, Satie. There's nobody on Ezra. I'll send you a pic."

I sent it to him and a few seconds later, a card slid out from the bottom of his door. His throat had gotten too scratchy, so we communicated via text for a short while. Then this morning, his fingers became too puffy to type, so we used his playing cards as a communication vector. I knew he must have been in a bad state, but there was a silver lining for me: no more piano sounds. I flipped the card he sent me. A three of clubs.

"Lucky stuff indeed," I said, sliding the card back. "Hope your allergies get better soon."

Another card slid out a few seconds later. Ace of hearts. I slid it back and went to wash my hands.

WEDNESDAY MARCH 18

"And so, I made an account on Club Penguin Rewritten while I was waiting for my cake to bake. The nostalgia, Satie, you wouldn't believe it! Anyway, you want a slice?"

There was nothing but silence. "Satie?" I furrowed my brows. He was just talking to me mere moments ago. By talking, I mean sliding cryptic playing cards out under his door in response to questions I asked him. What had happened?

"Satie? Everything good? The cake's getting lukewarm!" Nothing. I tried the door knob. It was unlocked. I began to push it open. "Satie, everything good?"

I couldn't get very far before he slammed the door back on me. I did get a quick peek of him though—or at least, a puffy, fire hydrant red Michelin Man in a gas mask that I guessed was him.

FRIDAY MARCH 20

"Satie! You're better?"

He looked at me with a faintly quizzical look. "Yes," he said flatly. "I told you. Yearly allergies. I've dealt with them before. Now sit down and eat with me."

"My God, it's crazy to think that I haven't seen you in a week. Hey, what's that smell? It's heavenly."

"Toulouse cassoulet."

"You're not serious?"

"I am. This week was an ordeal. Let's have a feast to good health. God knows how many more weeks of this await us."

Finchey

NOTICE

This mathNEWS article has been postponed due to the COVID-19 pandemic. A placeholder article has taken its place in the meanwhile. Thank you for your understanding.

boldblazer

DANGER TO MATH FACULTY DEEMED LOW

While the whole world is freaking out about the impacts of COVID-19 — and to be clear the virus is no joke—the math faculty is considered to be especially safe from its impacts. The virus spreads through face to face interactions, and here at UW math we don't believe in such things. The only risk factor was the **mathSOC** candy jar before it was closed down. When asked by the government to self-isolate most CS students stated they were already on it.

"Let's face it," says an anonymous professor, "the greatest health danger to math students is the general hygiene of their computer cave and their decreasing mental health due to lack of support. In fact we encourage Math students to actually get some sun light and maybe make eye contact with people from several meters away."

Beyond Meta

Ignore everything else I just said.

PROF. MICHAEL WALLACE

TITLE HERE

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Etaoin shrdlu



CONTENT

<rant>

clarifiED has summoned me out of isolation/retirement to add some girth to a concerningly underweight issue of **mathNEWS**. I guess it can't be healthy for a fortnightly publication to shed the weight of a massive column in the middle of a term.

Stairway Constants isn't over yet. Two weeks ago, I was expecting to publish another 2 or 3 pages of Q&A with profs and other staff about their contributions to the MC north stairwell number line. It was going to be a fitting epilogue for a hobby series that's taken me more effort than most of my courses this term. Even as the Academic MissionTM came crashing down that Friday, I was compiling the questions to be sent out by email...

It took multiple days for the implications of coronavirus to sink in. The profs I had emailed were busy on a mad dash to put out fires in multiple courses, and *Stairway Constants*' epilogue would have to wait for another term. My work term is still clouded in uncertainty. My room in Waterloo will go unoccupied for 5 months—an insult to my landlord's best efforts to provide affordable housing. To top it all off, there were multiple attempts on r/uwaterloo to spread fake news intent on causing distress.

I don't understand how other universities got back on their feet after a few days, since Waterloo was winded for a week. I'm glad they took a week. Profs, staff, admin, and politicians had to make a lot of decisions that they probably aren't happy with. You were informed of a lot of decisions that you probably aren't happy with. It's pretty safe to say that we all feel a collective disappointment about the situation, and a feeling of dread that it is now inevitable.

People are coping in various ways. Most folks I know have been relegated to the sidelines (their homes) while the essential service heroes assemble to save the day. Hobbies were started, video games were purchased, sleep debt was paid off, stocks were shorted, bodyweight exercises were done. A rare few caught up in their courses.

An orange passed through my Instagram feed; then came the Positivity Selfies. It's nice to remember that even during social distancing we have the technology to spread "happiness" faster than the coronavirus. Cynical as we might want to be, we should be grateful for it. Last time there was such a major plague upon our world, we had none of this.

On top of that, here's some of my own advice:

- Nobody exists just to please you, so don't take it personally when they don't.
- Very few things are out there to get you. Not even the coronavirus—it's just trying to reproduce.
- Expect some things to be out of your control, and focus on the things that you can still affect.
- Kindness produces happiness.

· Panicking makes you look stupid!

Nonetheless, sad times have arrived. Even in healthier days, nobody could make everyone happy. It's even truer now. You can't control what others do for you, but you can control how you let it impact you in the moment. We will lose time, money, people, and our way of life, but hopefully we can keep some sanity. It's still possible to be content.

</rant>

water

THE CORONAVIRUS IS RIGHT BEHIND YOU, SCIENTISTS REPORT

ATLANTA—The virus COVID-19, more commonly known as the coronavirus, is right behind you, scientists at the Centers for Disease Control report. While the virus can normally be prevented by good hand-washing practices and social distancing, CDC virologists report those measure will now be useless because the deadly virus is lurking just out of your field of view. While epidemiologists predicted the virus would spread worldwide to become a pandemic, they did not anticipate the pathogen to reach the zone of mere inches away from you, ready to strike.

At press time, a vaccine would not be ready for at least 8 months, but the coronavirus was already laying its viral spike protein on your shoulder oh GOD RUN.

UW Unprint



N LITTLE THINGS TO ENJOY — AND IF I DON'T SEE YOU: GOOD AFTERNOON, GOOD EVENING, AND GOODNIGHT!

After many long years of being at Waterloo, my time as a **mathNEWS** writer is soon coming to an end. Everything's a little crazy with the COVID-19 pandemic happening right now, and I'm unsure if I'll be able to write for **mathNEWS** while I'm still enrolled here, so here is my final article I will write as Herbie The Undergrad.

I know that the past week has been all over the place, and maybe some of you are feeling stressed or cooped up or upset. With that in mind I wanted to take a moment to step back from the craziness that is the current state of the world and appreciate the small things in life that we perhaps overlook. I personally find it really easy to forget about these things, since being enrolled in CS at Waterloo has a way of making me forget that I'm a human with feelings—and it especially doesn't help that we should be inside and away from people during this pandemic (here's a PSA to remind you to practice SOCIAL DISTANCING, thank you!). But I'm trying to learn how to balance being stressed about work (yes, even in 4th year I'm still trying to learn this) and forgetting about work and just enjoying the moment. So, over the past year I've compiled a bunch of videos and thoughts of moments that made me feel happy, no matter how small, and I'm here to share them with you. Have fun!

- Rooming with your friends and spending stressful nights ranting about work and binge-watching TV shows until 3AM instead of actually working
- Hosting parties in small student apartments, because we all know that the student housing (both on and off campus) is a complete shit show, but we make the best with what we have and still have a great time
- Heading to Toronto with your friends to see your favourite artist perform live for the first time, and leaving the concert with a head rush while squishing yourselves into the back of a car (with entirely too many people) and reminiscing about the great time you all just had
- Deciding to grab bubble tea at night because you're stressed and bubble tea is good (and also all over the place)
- Trying weed for the first time, and realizing that this is the beginning of a treacherous (not really, it's pretty fun) journey of becoming a Stoner (like I said before, I'm really living up to my writer name)
- Getting cross-faded and realizing you've made a horrible mistake as you spend hours throwing up but your friends made sure you were okay and the next day you all went for ramen and it ended up being super cozy
- After weeks of receiving rejections from various co-op positions, you half-ass a Cali interview and actually get an offer on the spot

- Getting to live in California for the first time. That place truly makes you feel like you're living in a movie.
- · Becoming a stoner while in Cali. It's too easy guys
- Taking the Caltrain in Cali to visit your lovely friend, spend days roaming the city and nights getting high and talking about nothing and everything and having the best time of your life
- Living with strangers but slowly becoming friends as you set days to grab lunch together and watch (read: make fun of) The Bachelor
- Getting your first tattoo because fuck it
- Looking out the window while travelling during a sunset, I really don't think there's a better time to do this while listening to some cliche slice-of-lifesounding song
- Thrifting with friends! Because not only is it unnecessary to actually buy anything, it's hilarious to dig around and see what crazy pieces you can find.
- Going to a music festival at a park in San Francisco. Magical
- · Going to Pride in San Francisco.
- Staring out the window on a late night, the TV on but the volume low, watching the few people walking around outside
- Planning a vacation with your friend and getting excited about the trip while travelling there.
- Discovering hidden gem restaurants in a new city
- Going inside a really cool, air-conditioned building after being outside in the heat for many hours
- Taking your friend to their first concert
- Hiking at Yosemite and taking endless photos and videos and, despite being terrified of heights, you and your friend(s) make it and come back to the hotel all sweaty and tired but a nice shower is waiting and it's the best feeling ever
- Literally doing nothing in a hotel room at night besides stuffing your face and laughing with your friends (and—you guessed it—doing all of this while high)
- Finding a cozy bookstore and sitting down and reading for hours
- Taking a walk in a new city and discovering the places you can imagine yourself showing friends
- The last day of co-op, spending time finishing up your tasks but mostly just talking to all the people that shaped your experience, and taking one last look at the office you spent the last few months in.
- Having to live away from all your friends, but making sure you set up frequent calls so you can talk about all the things that happened in the past week
- Travelling many hours to see friends for a weekend and trying to fit in as many things as possible with

- as many people as possible, forgetting that time indeed exists
- When you work with that one team that you actually really vibe with and it makes you feel really good about working at your co-op
- Spending one of your last terms living with a friend who has basically become family, cooking for each other and showing each other new activities and foods that you both have come to really enjoy
- Getting to sleep at 3AM after a long night of doing schoolwork because finally you can just think about sleeping and absolutely nothing else
- Taking one of the hardest CS courses with friends, and although it's one of the most stressful things ever you find enjoyment in the fact that you're all accomplishing really cool things
- Standing on a balcony and watching the snow fall in the middle of the night. (Similar effect with rain, but you may get a bit wet)
- Finding the perfect song to match the mood you're in/the scenery in front of you
- Late night walks with really awesome people and doing delinquent things
- Falling in love with your favourite artists/songs all over again
- Catching up with old friends you met in first year and realizing how crazy life has been for the both of you and that time has gone by entirely too fast
- Getting to know new people and realizing that they're someone you'd like to have around in your life for a long time
- Deciding to change your style because life is short and expressing yourself is free and incredibly fulfilling
- Reminiscing at the time you've spent at Waterloo, and how all the downs have made the ups so much more worth it
- The bittersweet feeling of realizing that most things must come to an end, and that this is some of the last times you will be experiencing life at University

and as always, saving the best for last:

 Stanning Red Velvet (this is the last time you'll hear me making this joke, oh woe is me!)

I hope that despite these points being very specific to my experience, you can relate to the things I'm saying and maybe look back at your own experiences and laugh a little. It's really been a crazy year (moreover, it's been a crazy undergraduate) that has passed faster than I could've imagine, but it was packed with so much that I can't help but take a moment to appreciate everything I got to experience.

It's been a pleasure (despite the obvious stresses of being a Waterloo student) being here—I feel like more than school content, I've managed to learn a lot about myself. I gained a lot of independence, as I was previously someone who was very shy and withheld, and I got to meet a lot of great friends. To those friends, I'd like to give a huge thank you for being

here during my best and even my worst times. UWaterloo can be very unforgiving and having you guys by my side has been such a wonderful experience and I'll never forget the time I had here. And specifically to a friend who's been with me for the latter half of my UWaterloo career, the one and only itorED, thank you so much for introducing me to mathNEWS, an outlet where I could practice my writing and have fun with great people. All of these experiences have been things that I could never replace, especially the fun conversations we would have while eating pizza. It really is the little things in life that makes life worth living, and it's things like mathNEWS that have made me feel like I have something to look forward to.

I hope that going forward, the future students of UW have their own **mathNEWS** to go to, where they can meet great people and learn that there is more to life than a number on a transcript. Life here can be fun if you make it that way, I promise.

It's been great, **mathNEWS**. Thank you.

Herbie

(P.S.—If any of you have the chance to go to the states for a co-op, I really recommend Uncrustables. Best snack ever.)

FAKING NEWS

Kitchener man coughs and is immediately detained by police.

The man and the officers in question were playing a friendly game of hide and seek, but the cough gave him away.

Toilet paper is flying off shelves.

Drone technology is getting people their TP much sooner and more efficiently as more stores roll out drone support.

Students flock to night club amid virus pandemic.

The club owner is distributing care packages with daily necessities to students to help keep them safe and healthy.

U.S. troops take position near border with Canada.

Corporal Richard Little and his platoon are feeding the ducks and geese in the St. Croix River while their normal feeders are self-isolating. When asked to comment, one of the ducks happily swam in a circle and then quacked, while one of the geese bit our reporter.

confusED

N OVERLOOKED EDUCATIONAL YOUTUBE CHANNELS TO KEEP YOU PREOCCUPIED DURING SOCIAL ISOLATION

ALTERNATIVE TITLE: N YOUTUBE CHANNELS TO PROCRASTINATE TO

Ah, quarantine season. That time of year when universities frantically try to complete their academic missions without success, city streets become more deserted than a daycare after a projectile-vomiting incident, and life gets so dire the government declares the LCBO to be an essential service. Thankfully, amidst the boredom, YouTube is here to keep our primordial brains preoccupied with endless clickbait videos and fifteen-minute clips of grown men yelling like a coked-up post-puberty Chicken Little. Alas, one does eventually tire of watching what lies in our subscription feed, and it is only natural for the human mind to seek something new and exciting. Hence this article.

Before we start, we must define what constitutes an overlooked YouTube channel. We could use subscriber count, but subscriber counts are actually a pretty bad statistic, as some channels have low subscriber counts but get a disproportionate number of views on their videos (and vice versa). Thus, we base our definition on average view count. We can presume that the less views a channel has on its videos, the less likely that channel is to be shared on social media, and thus the less aware people will be of it in general. Although YouTube does give a total number of views for a channel, this figure can be misleading—a channel that has recently gone popular, but has a long history of low views, may count as overlooked despite being the exact opposite. Therefore, we'll look at a channel's most recent videos.

Mathematically speaking, we present our definition thusly: For a given channel, let

 $A = \{ \text{Views on the } 10 \text{ most recent educational videos} \}$

We limit our sample to videos that are more than a week old so as to give videos time to "mature" in view count. We then develop the following statistic:

$$O = \frac{\max\left\{1,000,000 - \frac{(\sum A - \min A - \max A}{8}, \ 0\right\}}{1,000,000}$$

This gives us a measure of how overlooked a channel is in the interval [0,1]—the closer O is to 1, the more overlooked a channel is. By removing the minimum and maximum of A from the calculation of the average, we minimize the effect of any videos that have briefly gone viral, or been screwed over by YouTube's algorithm. To prevent inclusion of dead channels, channels must also have either uploaded within the past six months, or have an active social media presence. As well, despite our earlier qualms, we will exclude channels with more than 1.33 million subscribers (assuming 75% of subscribers are active accounts, this excludes channels with more than 1 million active subscribers). An **overlooked channel** is then a channel such that it meets the above criteria, and has O > .5.

Without further ado, let us take a look at some overlooked educational channels:

- Rare Earth Every Saturday, Evan Hadfield presents a thought-provoking mini-documentary on a culture, place, or legacy that you've probably never thought about. Beautifully produced and exquisitely narrated, Rare Earth might be the best YouTube channel that you haven't heard of yet. (And before you ask yes, he's Chris Hadfield's son.)
- Technology Connections—This channel goes pretty deep into the history and impact of technology past and present. From expositions on brown to the history of the Laserdisc (I remember those—do you?), it's fascinating to learn about the technologies that preceded our time and got us to where we are today. (And also the ones that didn't work out, like the Laserdisc! Those are fun too.)
- Overly Sarcastic Productions Absolutely hilarious summaries and expositions on classics, myths, and history. Basically if your English/ History high school teachers specialized in memes.
- Adam Neely—Jazz bassist and master of the licc, Adam routinely produces really good deep dives into not just music theory, but also aspects of performance and composition that we often don't think about. He just reached 1 million subscribers, which honestly really surprised me—I thought he'd passed that mark months ago.
- ARTiculations Insightful videos on architecture and art, modern and classical, for the architecture and art geeks like me. Unfortunately, this channel hasn't uploaded in a while, but its past stuff is pretty good (and also really relatable for Torontonians).
- **JeffHK**—Jeff takes his viewers on a journey through the ocean as he describes the world of maritime shipping. You may have seen his jaw-dropping timelapses before, but those are outnumbered by his many eye-opening videos on what it's like to sail on a container ship. They're damn interesting, even if you're a landlubber like me who's never sailed the seven seas.

This obviously doesn't cover everything; there are undoubtedly many, many other excellent educational channels that I myself have overlooked. However, if you're looking for something new, check these channels out. You won't be disappointed.

terrifiED

IMPORTANT UPDATE ON THE ENTIRE WORLD

Shit's still broken.

SIGSEGV

RE: KEN

I couldn't get around to continuing the Ken saga this week; I got very busy watching some important video games. Keep an eye out next term, supermagicTesseract!

ieff

IMPORTANT UPDATE ON SLC CONSTRUCTION

I don't know if shit's still broken cause campus is shut down. But it probably is.

Various Pseudonyms

IMPORTANT UPDATE ON MY PERSONAL LIFE

Animal Crossing is pretty fun.

Anuj Opal (swindlED) Editor, math**NEWS** for W18, S18, F18, S19, W20



NEW DISEASE DISCOVERED IN WATERLOO, CANADA: WILL IT BECOME A PANDEMIC?

A terrifying new disease has been discovered, originated from Waterloo, Canada. The disease is being called the SWRMA-69, and is believed to have originated from a local restaurant known as "Lazeez".

Symptoms include:

- diarrhea
- diarrhoea

WHO is discouraging people from calling SWRMA-69 the "Shawarma Flu", as they are concerned that it will stigmatize shawarma.

this_is_sarcasm

You could be playing Sonic 3 & Knuckles right now, but instead, you're reading mathNEWS.

That's the best compliment I've gotten all week.

A mathNEWS EDITOR WHO REALLY LIKES SONIC 3 & KNUCKLES

THE BETTING BOARD AT ST. PAUL'S

If you haven't been following the last issues, **mathNEWS** has picked up a scrappy kid from Environment. That would be me, because surprise! Despite the name being mathNEWS, the whole organization is multi-faculty. Anyways if you also haven't been following the news recently, the coronavirus has shut down the entire province's schools, which unfortunately uWaterloo did not obey in the name of the academic mission. But, over the course of Friday the 13th, a group of Environment kids in St. Paul's University College decided to make a betting board on which university would be the last to close. The universities were as followed: U of T, Queen's, Guelph, Trent, York, Western, McMaster, Waterloo, Ryerson, Nipissing (spelt Nippissing), Laurentian, UOIT, Laurier, Windsor, UOttawa, Lakehead, Carleton, Brock, Algoma, OCAD and RMC. That was 21, but the way they were written called for 24, so we wrote in McGill. UBC and Concordia.

There were many bets: Ryerson, Laurier, Brock, Waterloo, UBC and Guelph were definitely up there, and Windsor was mentioned as a dark horse win. By the time I got there, UofT, Western, York, McGill, Laurentian and Carleton had already closed doors, and we were in the middle of crossing out Mac. I took a picture, but before I could post it Trent had already been eliminated.

I spent the next hour of lunch obsessively checking my phone. I received a message from my friend that Queen's had closed, as was Ryerson and UOIT, and so at 12:00 pm those three were crossed off. 15 minutes and Concordia joined not long after. That's half the board gone.

We sat around, and UOttawa followed suit, and then FINALLY! UWaterloo abandons the academic mission and is crossed out. Bingo! I have class at this point, so I leave, and by the time I come back, I've found Guelph out, and not long after, another friend tells me Brock is gone.

So the ones left are Laurier, Nipissing, Laurier, Windsor, Lakehead, OCAD, Algoma, UBC and RMC. Nipissing, Lakehead and Algoma are all in Northern Ontario so I'm not surprised about that. OCAD is certainly surprising seeing it's literally in

downtown Toronto, as is Laurier seeing UWaterloo abandoned the academic mission and Guelph is gone.

We take bets on who is going next—seeing it's the biggest, I say UBC is going UBseeya. It's not long before we see Laurier has gone, as well as OCAD and Algoma over dinner. Nipissing and Lakehead too? Damn.

Around 9, Windsor unfortunately can't make the dark horse win as it closes. it's RMC vs. UBC here. On my story, it's almost 50–50, with RMC at 51%. Then we see it at 11—UBC is closed! Insert crab rave here. I also find out RMC was quarantined as well so we've basically crossed out the entire board. Whatever, RMC won anyways. Yay RMC! I lost 5 dollars on that.

The Resident ENV kid

WASH YOUR FUCKING HANDS

BY XI JINPING, PRESIDENT OF THE PEOPLE'S REPUBLIC OF CHINA

It's been a bad three months. Turns out this whole coronavirus thing is not "a matter easily resolved by the state". But I've never seen a problem I didn't lock in prison, and by the god of our state approved atheist religion, I'm not going to start now.

We got through it. I'll be honest, it started looking a bit like Plague Inc over at the State Ministries of Health, but we got through it. We're reopening the iPhone sweatshops and extrajudicial detainment has gone from "elevated" to "normal".

If there's one lesson I can tell the so-called free countries of the world: wash your fucking hands.

The Real Xi Jinping

ISSN 0705-0410

UW'S BASTION OF ERUDITE THOUGHT SINCE 1973

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gridCOMMENT TITLES ARE FOR SQUARES, WHO NEEDS 'EM...WAIT SHIT

gridCOMMENT 142.6

Hi all, and welcome to the last gridWORD of the term!

Due to campus shutting down cause of the coronavirus, your regularly scheduled **gridMASTER** is not available, so here I am instead. I hope he won't mind if I try his shoes on for a bit, they're quite comfy.

On a related note if we got any submissions of last issue's grid we haven't looked at them, so there's no prize being awarded to anyone, not that the C&D is open for you to redeem it anyway.

As has become tradition in **mathNEWS**, the **gridWORD** in the final issue for a term is a re-print of a puzzle from an older

issue of mathNEWS. In this issue we have a cryptic from almost a decade ago, originally published in v117i6. There won't be a prize given for correct submissions of the grid accordingly, but feel free to send them in anyway if you feel like it. If you still want a <code>gridQUESTION</code> how about "what's a good piece of media to distract yourself with in these chaotic times?" — we probably all need more at the moment.

Happy Solving!

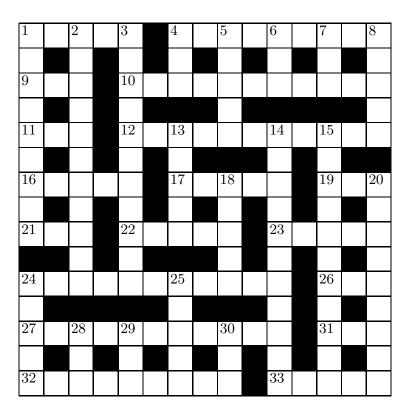
Anuj Opal (swindlED) Editor, math**NEWS** for W18, S18, F18, S19, W20

FLYING

- 1. Open into broken existence
- 4. Stiff paper king is audibly bored
- 9. Sum up with a bit of brandy
- 10. Blowing up a timid noble until they're invincible
- 11. A walk-and-talk frying bowl?
- 12 . Spiders in pieces and leaderless cults of insults
- 16. Letter held by the taxmen
- 17. Insiders burdened by the mix up
- 19. Apply a point
- 21. Regret having been decapitated by a grue
- 22. Half of the military activities are music?
- 23. I heard that the heart pumps god-blood
- 24. Objective situated on information
- 26. Provincial police perplexed papa?
- 27. Action rule, beaten right between the eyes
- 31. Disney made a movie about a burglar and his monkey?
- 32. One press of a button is the cue to row
- 33. Near an end

FALLING

- It's tossed, without the baby, wash and drink
- 2. Attendants and butterflies
- 3. Bow, cheering, for the jewel that wrote Sweet Caroline!
- 4. Scoundrel surrounded by decadence
- 5. Cloth fibre, like sheep, for example
- 6. Risk helps, without taking sides
- 7. White robe seen around real bishops?
- 8. Adjust clothes
- 13. Watch and listen to the step
- 14. Even earlier than from a while back?
- 15. Spread spud for the lazy guy
- 18. 9 and a play
- 20. Bewitch with a space of ascension
- 24. Hesitate and back down
- 25. Chip called Markus Persson nothing!
- 28. To you, it's holding a plaything
- 29. Pigeon rodent
- 30. Rest from the fib



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A math**NEWS** EDITOR WHO'S TOTALLY STILL ALIVE INSIDE, PROMISE.

lookAHEAD

SAT APRIL 4	Who fuckin' knows?
FRI APRIL 3	Who fuckin' knows?
THU APRIL 2	Who fuckin' knows?
WED APRIL 1	Who fuckin' knows? April Fool's day The mathNEWS computer celebrates 7 continuous months of uptime.
TUE MARCH 31	Who fuckin' knows?
MON MARCH 30	Who fuckin' knows?
SUN MARCH 29	Who fuckin' knows?
	MON MARCH 30 TUE MARCH 31 WED APRIL 1 THU APRIL 2 FRI APRIL 3

SAT APRIL 11

FRI APRIL 10

THU APRIL 9

WED APRIL 8

TUE APRIL 7

MON APRIL 6

SUN APRIL 5

Who fuckin' knows?

gridSolution LAST WEEK'S

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gridSolution THIS WEEK'S

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