ΜΟΝΑSΗ ADVANCED SCIENCE & SCIENCE SCHOLARS SOCIETY



ISSUE 3

### Free food, free food and more free food!

There are a number of MASS<sup>3</sup> events coming up in the next month or so that will allow everyone to get lots of free food! (Because that's the only reason people go to events, right?) Such events include the EGM (for approving the new constitution and electing secretary), AGM (for electing the new committee), movie night and a barbeque. Get excited and turn to page 3 for more information!

### **Membership**

Anyone who has not signed up to the club yet definitely should! Why?

- You'll get a nice pretty membership card with the periodic table and a number of constants that you can refer to if in need
- You get to vote at the upcoming EGM and AGM (which will help determine the future of the club!)
- You can nominate yourself for a position in the committee (see page 4 to find out more about this)
- It's totally free if you have MSA!
- If you don't have MSA, it's still only \$5, and remember this money goes towards helping the club and enabling us to buy things you want and host fun events!
- You can get all the aforementioned free food from our clubs events! (it's just good etiquette to join the clubs you get regular free food from because it helps us to continue to supply you with this free food)

Note that if you want to vote/nominate at an event (EGM or AGM), you must sign up to the club 5 working days before the event, so start signing up now! You can see Michael, Josh, Lianna or Kieren to sign up.

Also, as the membership cards have only recently been rediscovered, if you are already a member but haven't got one yet, just ask Josh, Lianna, Kieren or Luci to grab you one.

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To all MASS cubians, I present to you my final newsletter! It's truly been a pleasure making these so I hope you all enjoyed reading them.

Thanks to all who helped the process for this particular one: Martin, Leo, Kieren, Josh, Ben, and all of the committee!

- Luci

# **President's Report**

Hi everyone, and welcome to Semester Two!

Firstly, I would like to thank people for what I feel has been a great start to the semester. Already the common room is filled with friendliness, less exclusion and/or smart board videogames and even - gasp - study! That's what our common room was meant for, and I'm very proud of everyone for helping make it actually possible to study in there, alongside all of the banter, puzzles and fun.

We've got a bunch of events coming up soon too, so if you want to be a part of them, please see me, Michael, Lianna, or Kieren to sign up to the computerised membership form if you didn't when you first joined the club (or if you didn't join the club) if you want to experience the full fun of it. If you don't sign up by Tuesday, you won't be able to vote in our election.

I would continue more on our great events, but I don't want to keep you too long - but if anyone has recommendations for movies before we get an official list to vote on, please contact a council member. Also do that if you have any suggestions, complaints or queries (or compliments!).

Thanks everyone, and see you at the EGM!

Josh Marlow President of MASS<sup>3</sup>



### MASS<sup>3</sup> Website and Facebook

As always, don't forget about the MASS<sup>3</sup> website, where you can find club information and news, contact details and most importantly an archive of all the newsletters from the past few years.

URL: http://masscubed.com

If you haven't already, make sure you join our Facebook page, where you can get the latest club news as well as share and discuss ideas or internet links.

Facebook URL: https://www.facebook.com/groups/masscubed/

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# **UPCOMING EVENTS**

# **Extraordinary General Meeting (EGM)**

Some revisions have me made to the MASS<sup>3</sup> constitution, namely the inclusion of first year rep as a committee position, and we will need these changes to be approved by two thirds of attending members so come and make your vote count! We're also going to be elect someone to be secretary until AGM, as sadly Michael has resigned. If this isn't enough to persuade you to come along, there will be FREE PIZZA and DRINKS.

WHEN: Tuesday 26th August, starting 6:30pm W

WHERE: The Common Room

## MASS<sup>3</sup> BBQ

Come along for free sausages, hash browns, veggie burgers and drinks!

WHEN: Tuesday 2nd September, 12:30-1:30pm

WHERE: Lawn outside the Common Room

## Movie Night

This is a great night where all MASS<sup>3</sup> members are invited to watch a movie together and eat pizza. Best of all, it's totally free so don't miss out. The committee will decide on selection of movies to choose from, then everyone can vote on which movie from this selection they want to watch. The finer details are yet to be announced, but will most likely be held in September and in the common room.

# Annual General Meeting (AGM)

The most significant meeting of the year is coming up in September - the AGM, where we elect the 2015 MASS<sup>3</sup> Committee. There will be free pizza and drinks, and all the committee positions except first year rep will be open for nomination. Everyone should come to vote and eat, and if you're interested in nominating for a position turn to page 4 for more info.

### **Science Industry Week**

This is a great opportunity to learn about the diverse range of careers in science. Each night is focused on a different area of science, and there will be employers and Monash alumni to hear from and direct questions to. Note that you might need to book to secure your place.

WHEN: August 25-29 WHERE: Science Student Learning Lounge, Ground Floor, Building 26

Visit monash.edu/careers/students-grads/events/science-week.html for more information.

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### Should you consider a MASS<sup>3</sup> Committee Position?

With the AGM coming up coming in the next few months, all the committee positions except first year rep are up for grabs. Here is a guide to the role of each committee position, what attributes are helpful in each position and who you can speak with to learn more.

Note: the helpful attributes are just suggestions – if you don't have these particular qualities, it doesn't necessarily mean you shouldn't nominate for the position!

#### **The Executive Positions**

The executive are the people who are most essential in running the club successfully. The executive are usually third years (thus second years when nominating) – sometimes because these people have more experience with the club and may have been in committee positions previously. This doesn't mean the current first years can't nominate for these roles though – just keep in mind that if you're running against a second year, the second year might be more likely to be voted in because you'll have another opportunity to nominate next year.

#### President

#### What it involves:

- Being the figurehead for the club
- Delegating tasks to the rest of the committee
- Chairing meetings
- Making sure the club is running smoothly
- Making sure everyone in the committee is doing their jobs properly
- Liaising with C&S
- Responding to problems or suggestions from member of the club you are the one people will turn to!
- Assisting other committee members with their tasks if needed
- Dealing with official documents
- Giving a speech to the new first years at the start of the year
- Writing president's reports for the newsletter
- Usually co-hosting trivia night

#### Helpful attributes:

- Leadership
- Public speaking
- Commitment and dedication to the club
- People skills
- Good role model
- Being proactive

Want to know more? Talk to Josh Marlow

#### Vice-President

#### What it involves:

- Assisting the president with their tasks
- Filling in for the president when they are unavailable (e.g. chairing meetings or talking to C&S)
- Making sure the president is doing their job properly
- In the event that the president is incompetent (which won't happen because everyone in MASS<sup>3</sup> is awesome, right?), the vice president basically takes over all the president's tasks

#### Helpful attributes:

• Same as for president

Want to know more? Talk to Lianna Beeching

#### What it involves:

- Being in charge of the money and the financial related things
- Conducting bi-annual audits (which in turn means being responsible for bank statements, deposit books and reimbursement slips)

Treasurer

- Applying for grants
- Liaising with C&S in regards to financial matters
- Being stressed a lot
- Proofreading the financial motions in the minutes

#### Helpful attributes:

- Organisation
- Perseverance
- Beaurocromancy
- Being dedicated and hardworking there is a lot of work involved in being treasurer

Note: The treasurer is debatably the most important position on the committee – they are essential for the club's survival.

Want to know more? Talk to Kieren Watkins

#### Secretary

#### What it involves:

- Writing minutes and agendas
- Correspondence
- Checking the club letterbox and email
- Dealing with membership (signing people up to the club, keeping the record of members)
- Arranging meetings and making sure proper notice is given to everyone
- Attending events and meetings
- Keeping paperwork in order

#### Helpful attributes:

- Possessing a laptop that can be brought to meetings
- Being a good typer (quick and accurate)
- Good grammar, spelling and proofreading skills
- Organisation

Note: most secretaries take a laptop to the meeting and type the minutes (or at least the framework) during the meeting. Michael, however, handwrote notes during the meeting and wrote excellent minutes, which shows that having a laptop to type on in meetings in not essential.

Want to know more? Talk to Michael Khng

#### **Other Positions**

These positions are up for grabs for all members - current first years and second years alike.

#### **Events coordinator**

#### What it involves:

- Planning and organising events
- Hosting trivia night

#### Helpful attributes:

- Public speaking
- Organisation
- Sense of humour and fun

Want to know more? Talk to Nisha Duggan or Josh Marlow.

#### **Education Officer**

#### What it involves:

- Liaising between the club and the course coordinators (Leo Brewin and Rowan Brookes)
- Often requires doing odd jobs

#### Helpful attributes:

- People skills
- General committee attributes (see attributes under 'any position')

Want to know more? Talk to Jake McIntosh.

#### Webmaster

#### What it involves:

- Managing the MASS<sup>3</sup> website (updating it, making sure it's running properly etc)
- Often assigned responsibility for the computers/ smartboard in common room

#### Useful attributes:

- Computer and internet knowledge
- Want to know more? Talk to **Sam Pryor** or **Will Donohoe**.

#### Editor

#### What it involves:

- Organising, formatting and releasing the MASS<sup>3</sup> newsletter
- Pestering people for articles

• Proofreading articles and incorporating them into newsletter

#### Useful attributes:

- Some very basic computer skills (e.g. how to use publisher or similar program)
- Owning a computer or laptop
- Spelling, grammar and proofreading skills
- Writing skills

Want to know more? Talk to Lucinda Aulsebrook or Lianna Beeching.

#### **Any Position**

While each committee position has a specific role, there are also some general tasks that every committee member should be involved in:

- Attending meetings (for a meeting to take place, there needs at least 50% of the committee members attending)
- Discussing plans and ideas for the club (you can contribute towards things that don't relate to your position)
- Buying supplies for club (can be for events, or just general things for the common room such as communal food and whiteboard markers)
- Keeping the common room in order (tidying up, washing the teatowels, etc)
- Considering suggestions from members of the club
- Helping out at events (e.g. attending, helping set up beforehand or clean up afterwards)
- Other odd jobs

#### Useful attributes:

- Dedication and commitment to the club
- Willingness to help out and do any tasks necessary
- Ability to allocate some of your time for meetings and club related tasks (even when you have a lot of things on)
- Responsibility and organisation
- Having a driver's license can be useful (e.g. for picking up pizza for events)

## A Talk with Dr Leo Brewin

We all know Dr Leo Brewin - as the course coordinator of the Research and Advanced with Honours kids, or as the guy who comes in the common room and chats with us on Mondays, or perhaps as your lecturer for MTH1030 or another subject. So, what else does Leo do here at Monash? We interviewed him to find out about his research.

Note: unfortunately your editor's scribing skills are not quite up to scratch, so rather than a word for word transcript you'll get my summary of the things said. This means some of the accuracy may be lost and I apologise if anything is misconstrued or doesn't make sense!

#### What's your area of study and what are you currently researching?

Leo's area of study is mathematics, and more specifically the use of mathematics to describe how the universe works. This uses Einstein's theory of general relativity, in particular classical relativity or as Leo put it "basically anything except quantum physics." Leo went on to explain how his area involves trying use maths to explain things such as black holes and the birth of the universe. "Science isn't just about researching the next model of a toaster," Leo stated. "The pursuit of knowledge for itself is a worthy pursuit." Although, that doesn't mean Leo's research doesn't have applications. Leo explained to us that the GPS technology on our phones can only work using the knowledge and maths we have about how black holes work. Otherwise, a GPS



would only be able to give our location within a l0km radius, but thanks to our knowledge of black holes, a GPS is able to give locations far more precisely.

#### How did you become interested in this area of study?

During his honours year Leo took a liking to general relativity, particularly after someone gave him a paper that was about how you can describe the universe as collections of tetrahedrons. You can try to picture how any 3-dimensional shape can be made up by lots of small three dimension tetrahedrons. Leo explained that in a similar way, you can make up the universe with 4-dimensional tetrahedrons. (Editor's note: I'm not sure how accurately I'm explaining this so apologies if I'm way off.)

Leo was also said that he was interested because there were not that many people in the field meaning there was not much being done, and it was up to you to find answers. He also liked the unambiguity of maths compared to subjects like English - when you're right you know you're right, unlike the subjectivity of other subjects.

#### How did you get here and how long have you been working on this research?

Leo started here at Monash in 1975 and completed a bachelor of science and a PhD. He then moved to the University of Columbia in Canada for 3 years. Then since the 1990s, he's been working at ANU and at Monash University. The research developed over this time and has been a fairly continuous process.

### What does your typical day involve?

The day involves writing computer programs that involve equations describing things in general relativity. This often involves differential equations.

#### Where do you think you research will lead?

It's unknown exactly where the research will lead, but there's always new methods being developed to solve the equations. It's possible the ideas of this area will be extended into more applications. Maybe something completely unexpected and off-mainstream will come out of it. There are still unanswered question in this area that the research may help uncover such as what's the structure of the universe? Is it a sphere as we generally believe, or is it actually a different shape such as a doughnut? There's also other questions relating to the nature of the universe, such as what's driving the acceleration of the universe. It's also possible that this method may be used to examine exotic topographies.



### The Reason and Rhymes of Your Day

Thoughts by Martin Nguyen

Love is a strange thing.

It is tender yet crass; sensitive yet oh so insensitive. It acts as the lull of your evening quiet but also as the chaos of your waking moments. And so with the mirroring of its traits across every stretch and characterization of its feeling, most of us can't help but feel like there is an element of mutuality in experiencing love, but I'd like to say that this is not always the case. I recently read a beautiful series of comments from *Humans of New York* in which I saw the phrase, "To love is to wish someone all the happiness of a lifetime and be ecstatic at their joy even if you're not part of that joy or happiness. Or lifetime".

We tend to be possessive creatures and evolutionarily this is a forgivable thing.

We believe as though love is some force that we can control, that we can inflict onto others, that consists of an equal love in opposite direction but same magnitude, but this simply isn't the case (once again Newton, you're wrong).

It is perfectly acceptable for us to love a deceased one who is no longer with us and in whom we now share no real physical connection so why is it so, that we place such emphasis on requited love? (I mean, I think about the Tethys Ocean everyday... it subducted too soon)

Such notion seems to detract from the generous nature of love and its significance not as a desired feeling (though it may be) but more so as an *activity* as described by Scott Peck. It requires us to turn love into something that requires commitment which is uninhibited by personal attachment as that is an act of true generosity. And it would seem that, because of this, love sounds more like a series of things we do to find the reason and rhymes of our day even when the matching words and logical arguments are nowhere to be found. So don't love because you would like to be loved in return; love with no expectation and no inhibitions as if you were an apple tree<sup>1</sup>.

But don't take my word for this. These are simply the mad ramblings of a geologist so in love with the world and drunk from the mere sight of geology textbooks.



<sup>1</sup>I really do hope at least some of you get this antiquated reference...

### **Employment and Careers Development**

The service you always hear about but never use

Hey guys, so I'm sure by now you've heard about the Employment and Career Development team at Monash but you may be wondering why you should care that they exist.

First of all, they're there for us and Monash University wouldn't be paying them in these tight conditions if they weren't considered valuable. This is your chance to have your resume tightened up ready for jobs that swing your way! This is your chance to get career counselling! This is your chance to network with people who you'd like to work with in the future! It may sound distant but the earlier you get started the better prepared you'll be when you actually graduate. Ask any third year or honours student in the common room – first year is the best year to get started because you've got the most free time on your hands (yes my poor JAFFYs – it gets worse).

When ECD interviewed graduates of Monash, the one key message they tried to get across was to 'get involved' because there's a lot of opportunities at Monash to buff up that CV but even more importantly, get experience in things you haven't done before. Join a club or better yet, become a committee member. It can be as simple as being a general representative (gen rep) where you show up to meetings and have your ideas heard. Or if you're audacious like some outstanding members then you can be a treasurer for a club – or if you're brave, two!

I'll get off your back in a second and let you get back to the more important activities of your day like checking out the latest viral vid, but if you're at all interested in going on exchange – talk to the guys at Monash Abroad. We even have an employee of theirs who frequents the common room every so often - our very own Laura Driesser. Rachael Turner is one of our stars who are going abroad next year so bug her if you're thinking about it – the application might not be as daunting as you think!

Well, that's all from me folks. Kieren.

Editor's Note: The more observant readers may recognise this article from the previous newsletter. We've reprinted it in this issue just to fix a couple of issues that were in the last edition, and also remind you once again that ECD exists and is there for you to use. Cheers!

The following quotes were heard from people in the common room, many taken out of context to add humour. Enjoy! "What's chastity?" "More boobs make everything better."

"I'm part of the furniture - you can sit on me."

"He could literally buy a whole tribe of Africans."

"It's the kind of umbrella Batman would have."

"There's a greater possibility of me becoming a criminal than me being famous."

"I'm not fisting you for that."

"They're not just the type of thing you can get drunk and just think of."

"I do love my genitals."

"That shit requires defrosting."

"Why aren't those gay men groping me?"

"I should get pregnant."

"So, you think it's easier to cut off your penis than it is to not have sex?"

"Do Amish people even wear clothes?"

"Read my sex story."

"[She's] like one of those cars with a huge crumple zone."

"The mathematicians will commit suicide."

"I'm not good with my mouth I'm good with my hands."

"He's not a thing in the physical world."

"It's okay if you do it to her face."

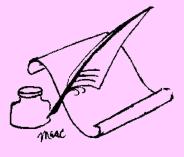
"I don't believe in Spring."

"That's why I stopped - because you came inside me."

"I get the poop."



I have recently developed feelings for Pencil. It's a lovely partner. So affectionate and salacious in just the right amount. I really want to get this relationship moving forward but I know for a fact that Pencil has cheated on me with Rubber and is in a complicated relationship with Teeth. Should I just give up and escape the mess that is this stationary chaos?



Síncerely, Paper

#### Dear Paper,

You seem to be quite prone to these tricky relationship situations—last time I heard from you, you had found yourself in a love triangle with scissors and rock. It's good to hear you've moved on from that troublesome situation, although not so good to hear you have found yourself in another complicated love situation.

In my opinion, it sounds like Pencil my be having some problems consolidating its feelings — whether it be because its confused and uncertain, or because it enjoys playing around with multiple items. In any case, a serious relationship just may not be what Pencil is looking for, and if you want different things out of your relationship then it may not make either of you happy. It might be time to step back a bit and move your focus elsewhere. From what I've heard, Pen is looking for a stable relationship, and has the kind of commitment that Pencil lacks.

All the best, The Editor

#### Dear Edítor,

I have recently been diagnosed with severe obsession with avocados and moistness. What is my prognosis?

P.S. I love moist avocados.

I have used extensive data on this obsession to determine your outlook Taking into account the time between when you sent in this and when the newsletter will be released I'd say you have about... 12 minutes left to live. Spend it wisely!

The Editor

Got a question? You can submit it anonymously by sending it from the MASS<sup>3</sup> advice email!

Username: mass3secret@gmail.com Password: mass3#swag

Then email lcaul1@student.monash.edu

# Puzzles and Riddles

There are 5 MASS cubians who live on campus and by some stroke of luck, the dorms they live in happen to all be in a row. Each dorm is painted a different colour. These 5 MASS cubians are all from different year levels, and doing different majors. They are also each in a different club (not including MASS<sup>3</sup>) and play a different video game. Here are some facts about each student:

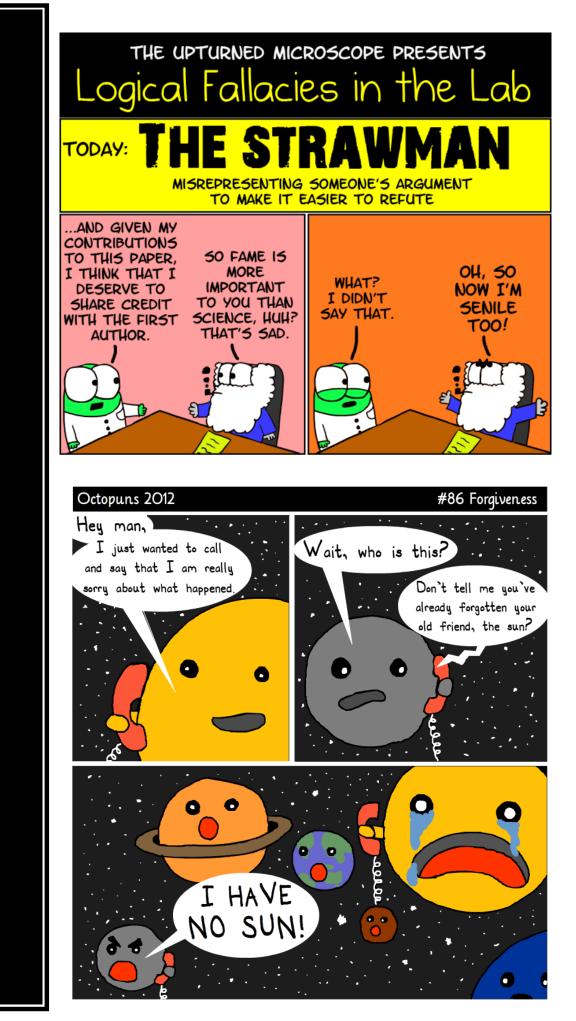
- I. The Biology major lives in the yellow dorm.
- 2. The Geoscience major plays Team Fortress 2.
- 3. The Physics major is a member of MURP.
- 4. The blue dorm is on the immediate left of the pink dorm.
- 5. The owner of the blue dorm is a member of the board games club.
- 6. The second year plays Minecraft.
- 7. The owner of the red dorm is a PhD student.
- 8. The student living in the centre dorm is a member of Muggles Society.
- 9. The Chemistry major lives in the first dorm.
- 10. The honours student lives next to the one who plays Final Fantasy.
- II. The student who plays League of Legends lives next to the PhD student.
- 12. The first year is a member of FASA.
- 13. The maths major is a third year.
- 14. The Chemistry Major lives next to the green dorm.
- 15. The honours student's dorm is next to the Anime club member's dorm.

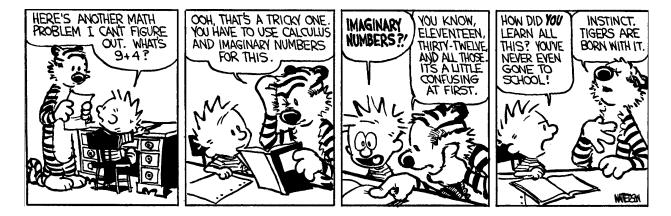
Now the question is... which student plays Bioshock?

(note: I will only deem the answer correct if you can tell me which subject they are majoring in)

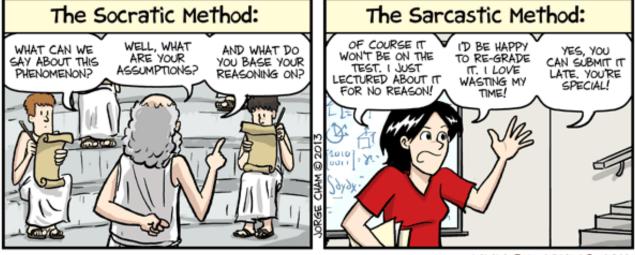
Three gods A, B and C are called, in some order, True, False and Random. True always speaks truly, False always speaks falsely, and whether Random speaks truly or falsely is a completely random matter. Your task is to determine the identities of A, B and C by asking three yes-no questions; each question must be directed towards one god only. The gods understand English, but will answer all questions with either 'da' or 'ja', where one means yes and one means no but you do not know which. What three questions do you ask, and to which gods?

What goes up? Thanks to Ben Jones for the riddle!	
What occurs once in a minute, twice in but never in one thousand years?	a moment
There is a prison with 100 prisoners, each in separate cells with no form of con- tact. There is an area in the prison with a single light bulb in it. Each day, the we den picks one of the prisoners at random, even if they have been picked before and takes them out to the lobby. The prisoner will have the choice to flip the switch of the light bulb if they want. The light bulb starts off.	ar-
When a prisoner is taken into the area with the light bulb, he can also say "Eve prisoner has been brought to the light bulb." If this is true all prisoners will go free. However, if a prisoner chooses to say this and it's wrong, all the prisoner will be executed, so a prisoner should only say this if he knows it is true for su	s
<ul> <li>Before the first day of this process begins, all the prisoners are allowed to get</li> <li>together to discuss a strategy to eventually save themselves.</li> </ul>	
What strategy could they use to ensure they will go free?	<u> </u>
Those who make it don't tell, those who tak know it, and those who know it don't want i	
Answers for previous newsletter (issue 2, 2014)	
Riley did it.	
lt's 7:00pm.	
A lobster for the first part, a red hot poker for the second.	
Trespass.	
The word 'short'.	





## Teaching Methods



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