



# Felix

The Student Newspaper of Imperial College London

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Staff gathered outside the main entrance on Thursday // Joseph O'Connell-Danes

## Strikes hit Imperial over pensions dispute

### NEWS

**Fred Fyles**  
*Editor-in-Chief*

*Academic and support staff belonging to UCU have begun a 14-day walk out after potential changes to pension scheme.*

**T**his week saw lectures and tutorials cancelled, as university staff across the UK began their walkout over pension pay.

Members of the University and College Union (UCU) across 64 higher education institutions went on strike of Thursday

and Friday of this week. It marks the first two days of escalating strike action, which could extend to 14 days in total, and is estimated to affect over a million students across the country.

Imperial staff and students assembled at 7.30am on picket lines at key entrances to the College, including outside the Royal School of Mines, the Imperial College Road entrance, and the Huxley Building. Many of the staff taking part in the picket carried signs saying “Hands off our pensions”, and handed out leaflets to staff and students entering the College. The Imperial branch of UCU estimate that picket lines were joined by at least 50 of

their membership, which has increased to more than 600 members since the dispute over pensions began.

**“Imperial UCU estimated picket lines were joined by at least 50 of their membership”**

At 10am, striking staff assembled with student supporters at the entrance to the Imperial College Business School for a

photograph, and then moved down to the entrance to Imperial College Road, where a number of speeches were made.

Roddy Slorach, a representative of UCU, told the assembled crowd the strike was “not just to defend our pensions, but to defend an education service that is worth having for all of us.” He said they were “fighting for the future of education, for future generation that wants a system that works for everybody.”

Students then moved to Dalby Court and 170 Queen’s Gate – where Imperial President Alice Gast is provided an apartment – and wrote messages of support for staff in chalk, while watched by staff in

the Faculty Building.

A number of students across different departments turned out to support the strike. A Facebook event, “Stand with our Staff”, which invited students to join the picket line, had nearly 250 people interested and attending.

Thomas Cross, a first-year aeronautical engineering student, and editor of College and City Guild (CGCU) publication *The Bolt*, was present at the picket line. He told *Felix*: “I’m here to represent the CGCU, because as a constituent union we’ve decided to follow our fellow members, and ICU as a whole, in support of

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# EDITORIAL

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## Life on the picket lines

This Thursday, the striking Imperial employees, above all, looked cold. Walking into university at what I thought was the punctual time of 8.55am, I passed people who'd been standing on the picket line since just after 7am, passing out leaflets to passersby, and slowly losing all the feeling from their hands. It takes dedication, it seems, to take part in a strike, particularly on a bitter February morning, when you could easily nip into a warm classroom.

But what was even more impressive, for me personally, was seeing the students who came out to support the strikers on the picket lines, carrying placards and wearing UCU armbands. Imperial often has a reputation, not only for 'world-renowned research', but also for a complete and distinct lack of getting involved in politics. Whether people feel they're too busy with their coursework to get involved with activism, or think the research they do exists in a vacuum, with no impact on the messy world of policy (spoiler: it doesn't), students here seem reluctant to engage.



Fred Fyles – Felix Editor

Things were different today. It might have been a long time coming, but the swell of support from students who turned out this morning felt like something of a sea change. I've been at Imperial since 2012, and the last time I remember students getting this involved with a campaign was when #againstacton was launched, to protest College purchasing student accommodation outside zone 1 (spoiler: it didn't work). That was over five years ago, and since then I've witnessed – and been part of – a

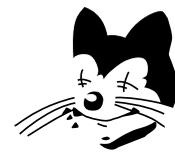
student body who seem to shy away from politics.

What is it about these strikes that could mark the turning point? Maybe it's because students are seeing the direct effect it's having on their education, having to forego previous time in tutorials in lectures after staff have joined the picket line. Or maybe it's because they believe that – when universities treat them like consumers – they are entitled to a refund since they're missing out on expensive supervision. Or maybe it's just because the whole world of politics has been

going to shit the last few years, and we're starting to make ourselves heard.

Whatever the cause, the effect was seen this morning, as I and Felix photographer Joe followed the procession of students as they made their way up to the Blue Cube Faculty Building, leaving messages of support while management staff looked on. The atmosphere was one of elation, tempered by a palpable rage at what the striking workers were facing: an uncertain financial future as their pension scheme risks being completely altered. Speaking to those taking part in the demonstration, it was clear that – while we might moan about coursework deadlines and SCR breakfasts – many of us feel a lasting connection to our lecturers, tutors, and support staff.

The strike will be continuing for the next few weeks, and I urge all of you to not let this opportunity slip through your fingers. They are fighting for their future, and, by extension, the future of all of us – whether we want to go into academia or not. Now, more than ever, is the time to turn up, and get involved.



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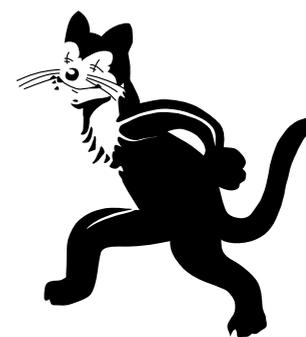
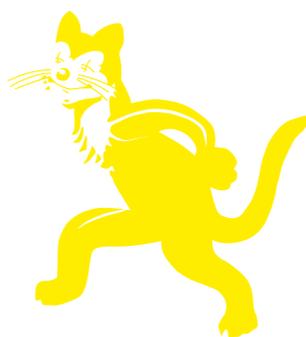
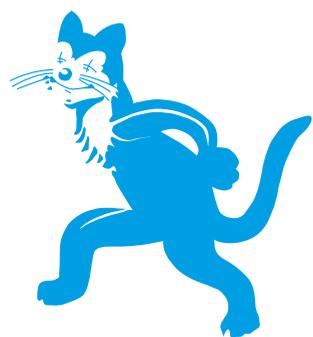
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# NEWS

news.felix@imperial.ac.uk

## Theresa May announces tuition fee review

### NEWS

**Fred Fyles**

*Editor-in-Chief*

*The review could mean humanities degrees charge less.*

**T**heresa May announced her planned review of post-18 education in a speech in Derby earlier this week.

Speaking at Derby College on Monday 19<sup>th</sup> February, May outlined her plans for the future of higher education, specifically potential changes to how courses at higher education institutions would be funded. She seemed to suggest that courses would charge variable amounts depending on their earning potential, a position later backed up by Education Secretary Damian Hinds.

A major review of funding in higher education was promised by the Conservatives last May, as part of their election manifesto. The move came amid increasing concern over the amount of debt faced by students in higher education, and

the long-term sustainability of the current model. Currently, students leave university with £50,000 debt on average.

The review, which is chaired by Philip Augar, is set to run for a year. May's speech contained suggestions at what possible outcomes might be. One of the most controversial plans would be to introduce variable fees for different courses, based on a number of factors, including the value the course has to the UK economy. In her speech, May said "the level of fees charged do not relate to the cost or quality of the course."

This suggestion was supported by Hinds. Speaking on BBC Radio 4's *Today* programme, he said "There are different considerations for courses. There is the cost to put it on, there's the return to the individual, and there's also the return to our economy and to society as a whole."

If variable fees are introduced, it is likely that non-STEM subjects, which have lower graduate earning potential, will end up charging less for courses.

The move has attracted

criticism from a number of sectors. Justine Greening, the former Education Minister, who was replaced earlier this year, suggested that changes would not do much to impact social mobility, and expressed concern that they may end up with "a system where young people from more disadvantaged backgrounds feel like they ought to do one of the cheaper degrees."

Angela Rayner, the shadow education secretary, said: "charging more for the courses that help graduates earn the most would put off students from the most disadvantaged backgrounds from getting these same qualifications."

Richard Adams, *The Guardian's* education editor, said the move was "clear, simple, and wrong", pointing out that some courses with the highest graduate earning potential were the cheapest to run, citing economics courses at institutions like LSE.

There are also concerns over the impact dropping tuition fees could have: an analysis by the London Economics consultancy firm has predicted that



Theresa May, lost in thought about tuition fees // Wikimedia

dropping fees to £6,000 across all courses would lead to a deficit of £1.169 billion per year.

May, who said her first speech in parliament had been on education reform, said "the need for [a new education system] has never been greater"

One outcome the government has made it clear they will not support, however, is complete removal of tuition fees, a promise Labour made in the run up to last year's general election. Speaking in Derby, May said: "those who benefit directly from higher education should contribute directly towards the cost of it." – a clear swipe at Labour's

policy.

Tuition fees have been a point of contention for the government for a number of years. In 2010, the cap of £3,225 was raised to £9,000 per year, which sparked large student protests. Initially, the government had predicted that a handful of the top-performing universities would raise their tuition fees to the maximum level, but the vast majority of higher education institutions now charge maximum fees.

In October, May announced plans to freeze tuition fees at a maximum of £9,250 per year, and raise the threshold at which loans must be paid back to

£25,000. Originally, the government had planned to link rises in tuition fees with the Teaching Excellence Framework (TEF); universities with gold and silver ratings would have been able to raise their fees in line with inflation.

May also spoke about the challenges faced by students from lower socio-economic backgrounds, highlighting that nearly 25% of students at top universities went to private school. Newly-released data showed Imperial was among the worst-performing universities in the UK in terms of state school admission, with only 63.5% of intake last year from state schools.

## Changes to graduation seating put in place

### NEWS

**Fred Fyles**

*Editor-in-Chief*

*Changes to the system mean guests may not necessarily sit together.*

**G**uests of students attending graduation ceremonies at Imperial College

London may have to sit apart, under a new ticketing system put in place.

This year the responsibility of the ticketing and seating allocation will be taken over from College by the Royal Albert Hall. The College told Felix: "their professional systems are better equipped to manage an event of this scale, which will lead to an easier ticketing process and a better overall experience on the

day."

However, the change means students attending with more than two guests will have no guarantee the guests will be sitting together. Graduands are guaranteed two guest tickets, with the option to purchase more on a first come first served basis at a later date. While in previous years the College's manual system would seat these guests together, under the new system this is not guaranteed.

One student *Felix* spoke to, who is due to graduate from the Royal Albert Hall later this year, said they were "saddened to find out my parents and my partner will not be sitting next to each other at my graduation."

"I understand that with the increasing number of graduands some changes need to be made for the ceremonies to be sustainable. However, I still do not fully understand why seating places are not

allocated after sales. If doing it manually is not efficient, why not make it an Imperial project to fix it? It would be a good UROP project, for example"

"I would love to have my parents and my partner sit together, considering they were both instrumental to my success during my degree. I think a better solution exists, and this new system is not it."

A spokesperson for the College told *Felix*: "While

we cannot guarantee that additional ticket-holders will be seated with the original party, students should contact the Royal Albert Hall Box Office to discuss options should their additional ticket(s) request be successful. Where possible the Royal Albert Hall will do their best to accommodate these requests."

This year's postgraduate graduation ceremony will be held on the 2<sup>nd</sup> May, 2018.

# NEWS

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## Placards, picket lines, and protests: *Felix* reports on the

### Students ask for refund

This week also saw the circulation of a petition from students asking for a portion of their tuition fees back. The petition, which started by students in the Electrical and Electronic Engineering (EEE) Department, was circulated amongst students by Imperial College Union (ICU) academic representatives and members of College staff. At the time of writing, the petition has reached nearly 2000 signatures, despite only being up for the past six hours.

The move comes as large numbers of students lobby their universities asking for partial refund of their fees. Earlier this week it was reported that 70,000 students had signed a number of petitions requesting money back at more than 30 universities, with the number of signatures rising at the rate of 10,000 per day.

Many of those asking for refunds cite frustration at the teaching they will miss, with UCU estimating that nearly 600,000 teaching hours will not be rescheduled. The frustration students feel about missing out on teaching is compounded by two other factors: the high fees many students pay, particularly international students; and the fact staff on strike have their pay withheld. The Times has estimated that Imperial could save up to £500,000 in staff costs over the duration of the strike.



A security guard checks out the messages of support // Joseph O'Connell-Danes

these strikes.”

Cross also highlighted the impact these changes could have on those who want to pursue a career in academia: “It was one of the main personal reasons for getting involved in the strike. I’ve been considering a career in academia, but this is seriously going to disadvantage people at a lower level. Those striking are already in the system, and they’ve acquired a certain amount of pension pay, but for us there won’t be anything

guaranteed if the changes go through.”

The concerns were echoed by Abhijay Sood, who helped organise the student demonstration. He told *Felix*: “I’m here to show support for staff, not only because I’m worried about their pensions, but selfishly too: as a student this is bad for education in general, and especially bad for those of us who see ourselves having future careers in academia.”

Last week Union Council voted to support the strikes, passing a paper that called on “elected representatives of ICU to support the UCU position”. A number of student Union representatives were present on the picket line on Thursday morning, but none of the paid Officer Trustees (OTs) – Union President and the four Deputy Presidents – were in attendance. Rhidian Thomas, ICU’s Ethics and Environmental Officer, said it was “disappointing” they did not come: “I’m very grateful at the

support the Union has given us so far, but I’ve emailed them about this a lot of times, they knew it was coming, and I’m more than a little annoyed they’ve not turned up.”

In a statement for *Felix*, a Union representative said: “Union Council

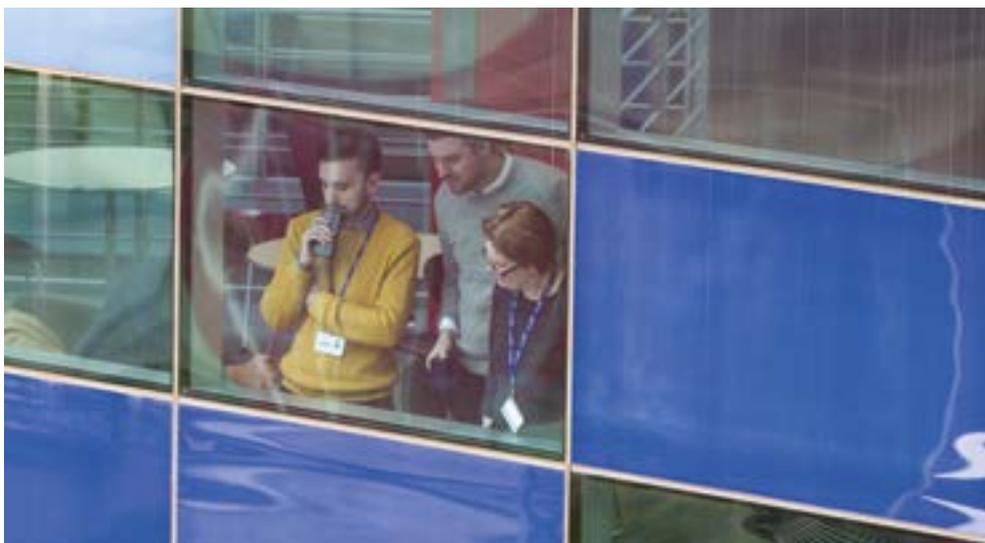
**“Students chalked messages of support in Dalby Court, watched by faculty staff”**

voted to support the paper, and the Officer Trustees have been achieving the objectives that Council democratically set for them. This did not include a mandate to join the picket line. The Council discussion was clear that Imperial College Union would also work to ensure

disruption to students is kept to a minimum. Our student leaders have been working hard to achieve Council’s objectives alongside continuing to represent and deliver for students at all levels.”

The strikes are the culmination of a long-running dispute between UCU and Universities UK (UUK), the group representing UK universities, over changes to pension schemes. Currently most higher education institutions are part of the University Superannuation Scheme (USS), a defined benefit scheme in which employers pay in up to a certain amount.

UUK want to switch to a defined contribution scheme, which would see employees paying into the pension pot, citing a funding deficit of £7.5 billion – a figure UCU disputes. An analysis by Professor Michael Otsuka of the London School of Economics (LSE) suggests employees may lose up to 60% of their pension under the new scheme.



Faculty staff watch the action // Joseph O'Connell-Danes

# NEWS

news.felix@imperial.ac.uk

## first day of the UCU strike action

UCU members voted largely in favour of the industrial action, with 88% of those balloted supporting a strike. At Imperial 58.5% of UCU members voted, in line with the national average.

Representatives from the UCU told *Felix* they had been told by management the College could afford to continue the pension scheme – which would cost up to 10% of their excess income – but had chosen not to.

Sood, who hoped the strikes would encourage students to “write to the Provost, and ask him to come back to the negotiating table”, highlighted the impact Imperial could have by supporting their staff: “I’m hoping that by Wednesday UUK with cede, and give their current proposal a stay. But some universities will have more sway than others, and Imperial is one of them. We’re only going to get the strike stopped if Imperial College take a position within UUK to

make a compromise.”

Already a number of university heads have asked UUK to come back to the negotiating table, including Warwick, Essex, Loughborough,

### “Senior staff have accused College management of misleading staff”

Lancaster, and Goldsmiths. Imperial College London have said the pensions dispute is “a national dispute over which [we] have no direct control.”

Last week College management were accused of misleading staff in an email from a senior member of academic staff. The email, addressed to Muir Sanderson, the College’s



Speeches being made on the picket line // Joseph O’Connell-Danes

Chief Financial Officer, and James Stirling, the College Provost, implies Stirling misled staff when he sent them an email last October saying “our preference would be to maintain a defined benefit structure for USS.” The email claims that three weeks earlier the College had informed UUK they would prefer “moving to a defined contribution only solution.”

The email, which has been circulated among a number of staff, says this finding “casts a cloud over your statements of future intent in supporting a better pension for staff.” It goes on to say their position has “shifted to one of incoherence – financially, historically, and morally”, and asks them to be “honest to staff” about potential outcomes.

A YouGov poll, organised on the eve of the strikes, showed only 2% of students thought university staff were to blame for the dispute, and over 60% supported

the strikes. This support was higher in universities where strike action was occurring, despite potential reductions in teaching time.

The impact the strikes have had on students at Imperial is unclear, since staff are not obliged to inform the College they plan to strike. A large number of students have received emails from their departments informing them to presume lectures are still on, although many have had lectures or tutorials cancelled.

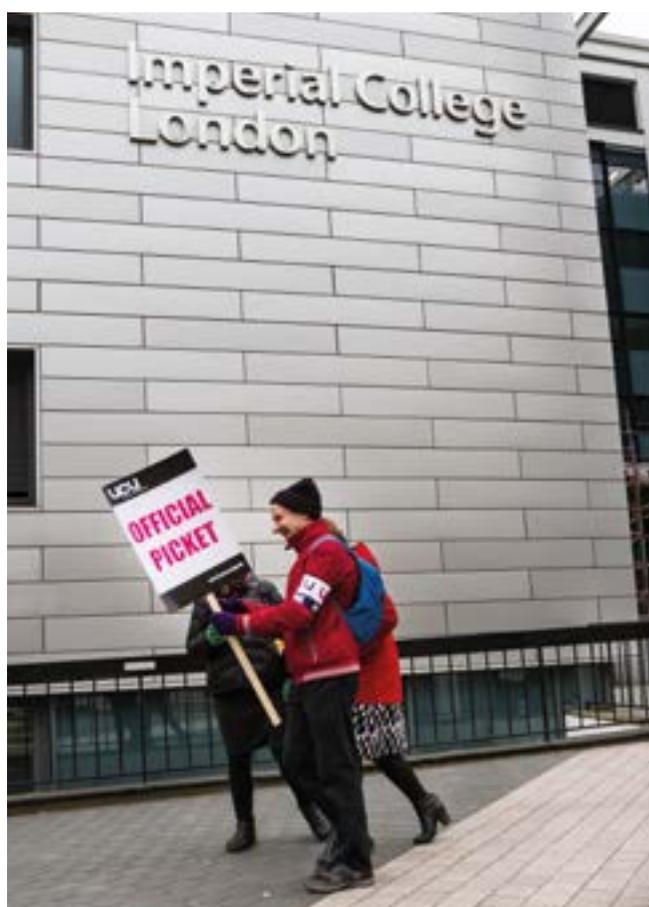
In a statement, a College representative told *Felix*: “We appreciate students may have concerns about potential disruption but the College will be open as usual and departments are working hard to ensure that teaching and assessment activities continue as normal. Any changes to schedules will be communicated by Departments. Advice for students is available online.”

### Oxbridge overrepresented in UUK analysis

The decision by UUK to move to a defined contribution scheme has recently come under increased scrutiny, as they have been accused of disproportionately taking into account the views of wealthy Oxbridge colleges.

Michael Otsuka, a professor at the London School of Economics (LSE) has estimated around 16 Oxbridge colleges were included in a key survey organised by UUK, which formed the basis of switching pension schemes. In the survey, which asked universities whether they would prefer moving to a defined contribution scheme that would offer less risk to university finances, Oxbridge colleges were more likely to support a scheme with lower risk.

In total, 42% of the 116 responses received in the survey were in favour of a less risky scheme. However, those 116 institutions included 16 Oxbridge colleges, as well as Oxford and Cambridge themselves.



Staff on the move // Joseph O’Connell-Danes

## NEWS

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## Elections error accidentally reveals manifestos early

## NEWS

Fred Fyles

Editor-in-Chief

Submitted manifestos for this year's Leadership Elections were made available for nearly two weeks due to a computer error

An error in Imperial College Union's elections webpage meant submitted manifestos were available to view for nearly two weeks.

An incorrect setting in the eVoting database meant a discontinued set of manifesto display pages, which had been removed in 2016, were accidentally reactivated. The



Nominations, Nominations, Nominations! // Imperial

result was that manifestos and information for candidates who had already submitted was available to view. The error meant manifestos were visible from the opening of nominations, on Wednesday

31<sup>st</sup> January, up until the afternoon of Wednesday 14<sup>th</sup> February.

The Union estimates that by the time the manifesto pages were taken down, 237 candidates had put themselves forward

for electable positions, and, of those, nearly 60 had submitted some form of a manifesto. The manifesto they submitted may not necessarily match their final version, since candidates can continue to

edit manifestos until the beginning of March.

A representative from the Union said the number of submitted manifestos represented a small

**“The manifestos were a small proportion of the total expected number of candidates”**

proportion of the expected number of candidates: “While it is not possible to accurately estimate the number of nominations that will be received in total, and comparisons

to previous years are of limited value as the Clubs, Societies, and Projects involved are different, we are expecting there to be approximately 800 nominations received by the deadline.”

The Deputy Returning Officers have decided that the Leadership Elections should continue without interruption. In a statement on the Union website, they said “we decided that if we cancelled the elections we would cause more disruption to candidates without undoing any of the consequences of the error, rendering it a disproportionate and unproductive response.”

Nominations for the Leadership Elections close on Sunday, 25<sup>th</sup> February. Over 700 roles are available, including paid sabbatical roles. You can nominate yourself at: [vote.union.ic.ac.uk](http://vote.union.ic.ac.uk)

## Strike action affects exams

## NEWS

Fred Fyles

Editor-in-Chief

A number of UK universities have said they will alter exams in light of UCU strikes.

Strike action by the University and College Union (UCU) could impact summer examinations if disputes over pensions are not resolved, with a number of UK universities stating they will alter their assessments to reflect loss of teaching.

Cambridge, York, and University College London (UCL) were among the universities saying they were

considering removing questions from examinations if strike action meant teaching on those subjects was missed.

UCL told *The Times* they would “make every arrangement possible to minimise the impact” of the strikes, but were prepared to change assessments in the case of severe disruption.

A number of Imperial students have exams scheduled during the period of the strikes. However, in last week's debate at Union Council over whether to support the strikes, Abhijay Sood, Academics Affairs Officer for the Royal College of Science Union (RCSU) said impact on examinations should be negligible, since invigilators were not members of UCU.

In a statement on their

website, Imperial College London say they will “make every effort to ensure all your assessment activities go ahead and are staffed appropriately.”

However, there are concerns the dispute between UCU and Universities UK (UUK) will continue throughout the dates of the strike action. UCU has warned its mandate for strike action is valid for six months, which means exams and graduations could be targeted this summer.

Sally Hunt, UCU general secretary, said: “We are keeping the channels of communication open. There is no sign they intend to shift. There will be significant strike action from Thursday. It will be ongoing until we find a resolution.”

## Union hit by breach to database

## NEWS

Fred Fyles

Editor-in-Chief

Imperial College Union was victim of a data breach earlier this month.

A number of members of Imperial College Union (ICU) have had their personal data extracted from a Union database.

The breach, which occurred on the 8<sup>th</sup> of February 2018, affected 267 past and current members of Imperial College Union, who had a limited amount of personal data

accessed. These data included their name, CID number, date of birth, gender, and academic details, among others. Not all individuals had all these data accessed.

ICU was only made aware of the break a week later, on the 15<sup>th</sup> of February. They informed ICT Security, and disabled the platform to allow the breach to be contained. A spokesperson for ICU said “preventative measures [have been] implemented to prevent such actions being repeated.”

The Union were able to confirm that the attack did not come from within Imperial itself. They do not believe it was targeted at the Union, but rather was an automated attack

that looked for vulnerable databases.

ICU informed Felix the breach was not serious enough to warrant notifying the Information Commissioner's Office. In a statement, a Union representative said: “transparency and the trust of our members is important to Imperial College Union, so as soon as was practically possible, we have contacted the individuals involved to let them know.”

Later this year will see the enforcement of the General Data Protection Regulation (GDPR), which sets out more stringent guidance on data sharing, and increased sanctions for breaches.

# POLITICS

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## The Winter Olympic's joint South & North Korean delegation

*Politics Editor Avirup Banerjee argues that the Winter Olympic's unified North and South Korean ice hockey team is a terrible idea.*

### POLITICS

**Avirup Banerjee**

*Politics Editor*

One of the worst clichés trotted out during world sporting events, like the Olympics, is that sport should be above politics. Yet this couldn't be further from the truth. Some of the most memorable moments in Olympic history have been steeped in politics: from Jesse Owens' defying Adolf Hitler's Aryan supremacy right under his nose to the black power salute challenging racial bigotry in the 1968 Summer Olympics. Thus, when the South Korean government invited their bitter rivals from the north to compete alongside them in the current Winter Olympics, it was well within this long tradition of sports and politics being intertwined. Yet the question that remains is whether this remarkable act of reconciliation by the south will have any positive effect or not. This is not the first time the North and the South have marched together in an international sporting event: they did so most recently in the 2014 Asian Games. Yet each time, such gestures by the South have been met by nuclear tests and other UN violations.

Instead, could this gesture bring further legitimacy to the Kim-Jong Un regime? The Kim family has dilapidated the vitality of the innocent people of North Korea by transforming the entire country into a concen-



North Korean & South Korean Flags side by side // Pixabay

tration camp. They have waged a war of constant fear on their neighbours by routinely threatening them with nuclear annihilation, accompanied by sporadic kidnappings and assassinations. It is difficult to argue to South Koreans, who live under the constant spectre of nuclear mushroom clouds, that this tyranny could be rewarded by the honour and pageantry of the Olympic Games.

It should be remembered that this decision by the South Korean government has not been very popular with its people. It was hard earned tax dollars from the South Korean citizens that financed the hosting of this event. Yet in events like ice hockey where both nations are competing as one unit, South Korean athletes who have trained

for years to compete and represent their country in front of their home crowd are having to sacrifice their well-earned places to make way for their ill-trained North Korean counterparts. As a result, one of the key tenants of the Olympics, meritocracy, is being abandoned for a gimmick that is unlikely to yield any meaningful results.

The citizens of South Korea have provided large quantities of financial aid and food relief to the North. Yet their gestures of good will have been reciprocated with hateful propaganda by the regime to their isolated people. Therefore, a time may come in the future when South Koreans say enough is enough. Let us hope that this unnecessary gesture does not result in greater resentment by

South Koreans which would hinder future peace efforts.

**“South Korea has provided aid to the North, but this has been reciprocated with hate”**

The decision by the South Korean government is not without any merits. They have been placed in between a proverbial rock and hard place. By including the North Koreans, the South Koreans have endeavoured to avoid any incident in the demilitarised zone along the 35th

parallel. The last time South Korea hosted the Olympics (the Summer event in 1988) the North Koreans shot down a South Korean passenger airliner, killing over one hundred people.

However, by yielding to intimidation, the South Koreans have unilaterally declared that blackmail works. At the heart of the Olympic spirit is following the rule book. Has the threat of terrorism been incorporated into the Olympic charter somehow?

The Olympic spirit, since ancient Greece, has symbolised the hope for world peace, yet in reality such events cannot be allowed to be hosted in political silos. We must not be lulled into a false kumbaya moment. The North Koreans will not enter the negotiating

table to surrender their nuclear arsenal and abandon their hostile and aggressive posture by simply allowing them to compete in the Olympics alongside their South Korean brethren. North Korea is a pariah, and so needs to be isolated and not given further gestures of goodwill. South Africa was boycotted for over a generation from sporting events due to apartheid. Surely the vast crimes of North Korea warrant a similar, if not greater, global isolation.

The pathway to hell is often paved by good intentions. The unification of the Korean peninsula through peaceful and diplomatic means is a noble idea. It is important, however, to remember that the vast majority of South Koreans were born after the Korean War in the 1950s – with no memory of a unified Korea. Yet why should young South Koreans have to see their sporting heroes cast aside for political stunts that have little prospects of advancing the peace process? South Korea and the rest of the world shouldn't abandon the people imprisoned within that slave state. And to their immense credit, the family of nations led by South Korea have led the humanitarian aid effort for decades that has prevented mass genocide due to starvation. But welcoming the North Korean regime to parade themselves under the Olympic banner as if there is no real crisis at hand, will do a disservice to the seriousness required.

## COMMENT

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# Politics, ideologies, and how to choose the right side

*There's a reason why candidates at Union elections are so boring. It's the same reason the left and the right exist in real-world politics.*

## COMMENT

Alan Perfect

Comment Editor

Every time student elections come back to Imperial, I always remember the sheer confusion of my old flatmate when deciding whom to vote for: “Back home in Italy, there is always a left-wing and a right-wing candidate in student politics. Choosing who to vote for was much easier there”.

I won't get into what this says about Italians in general, but I do acknowledge it's an interesting approach to student politics. The “pressure” of properly reading all the manifestos and the guilt of voting for whoever looks friendlier in the photo is taken away. It's just so easy. But that's not what happens in the UK. Here we vote on manifestos.

At first sight, pure manifestos just seem like the right approach: you read what each candidate proposes and decide rationally, depending on the issues you care about, without any ideological prejudice blurring your mind from choosing the right one. It just seems like the thing you should do.

If you let your curious mind to think this through further, though, you start to wonder whether this approach would work in real life politics. It's a claim many centrist parties like to make: “vote policies, don't vote ideology. Read manifestos and vote for the proposals you care about. Politics



They do look friendly, to be honest // Imperial College Union

isn't football, so stop cheering for your party like it's your team, and put some effort into voting with your head. Controversies are just tools the left and right use to stir things up”. Centrist parties love to promote this kind of thinking. They adore coming out as the purely enlightened sensible option. Emmanuel

Macron claimed several times he was neither left nor right. Similarly Albert Rivera, leader of Spain's centrist party, has claimed the same thing during

campaigns.

Keep digging further into this way of voting, however, and you'll eventually find it's just nonsense. At least in the long run. And there's a simple, nearly mathematical reason why. Candidates can copy policies. If a policy is uncontroversial and its goodness is universally accepted, every candidate will put it in their manifesto. And why wouldn't they? It's for the greater good!

So how are candidates supposed to differ, if, in

the long run, all universally good policies are adopted by all of them? They differ in how they approach controversial policies. Be it deciding between public cuts and public spending, military intervention in the Middle East, immigration policies – it is the answer to controversial questions that really defines a candidate. At least the serious candidates in real world politics. This is, in fact, the only reason the concept of left and right wing politics exist, and

why it will always exist. It makes the whole process of sorting out controversial positions easier. What baffles me, then, about every student election here at Imperial, is that some candidates often differ because they propose different uncontroversial proposals, which just shows a massive amount of sheer incompetence. How difficult is it to copy the proposal? How out of the loop are you as a candidate, that others are proposing easy, uncontroversial policies and

you haven't even heard of them? Just do your research, please. I implore you.

Ok, we've established that you need the concepts of left and right to have a serious candidate, so now our own beliefs come to play in the vote. We often complain that students at Imperial are very apolitical. While some of it might come from privilege – you don't need to take a strong stance on issues if the system grants you everything you need – some of it might come from the intrinsic nature of the Imperial student. Scientists and engineers value taking rational decisions based on facts, and

**“We know that you need the concepts of left and right to have a serious candidate”**

they are used to solving problems where there is a factually right solution backed by evidence. Backing a certain candidate or ideology certainly feels like it's against evidence and reason, because ideology, in the end, is just an assortment of collective myths and beliefs.

Let's define a spectrum so you, as a reader, can have a bit of an interactive experience placing yourself at some point in between two extremes.

# COMMENT

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On one extreme there's the sceptical, doubting, open-minded person. Someone who's not completely sure who to vote for in the next election. This type of person is a shape-shifter; an ever changing, hard-to-pin down voter. On the other side of the spectrum there's the believer by will. The true believer thinks that her ideas are better for the world. Much more close-minded and hard to convince, she knows exactly who she's voting for and why.

Each side has its peculiarities. The ones on the sceptic side tend to love having arguments, and are particularly strong against any ad-hominem attacks because it's so hard to pin them down. But it's hard for anything of value to come out if your ideas are not grounded at all and

lack the necessary depth.

Being on the other side is different. When you're so convinced of your ideas, because you are much harder to sway to the other side, you can potentially end up becoming a Nazi without noticing it. And this is a big dilemma, because you can only truly change the world if you really believe in what you are doing. Be it an entrepreneur, a social activist or an artist, it's hard to imagine them having any positive impact on the world without firmly believing they can do it without any factual evidence. And this is the big problem. You can't change the world through politics by being a shape-shifting, ideologically-empty centrist who just focusses on hard facts. You have to take a side and affirm your beliefs in

a well-grounded ideology.

But it's hard. If you're on the sceptic side of the spectrum, you know how hard it is. Some people are so firm in their beliefs it's close to admirable. Some lefties are born lefties; some religious people are born religious (by born I of course mean nurtured by their families). But other people go through shattering processes of destruction and rebuilding of their own values, constantly rediscovering and re-examining their views of the world.

If you're one of those Imperial students who have become apolitical because you're on the doubting side of the spectrum, fear not. There's one advantage: you're generally a politician's most prized target – you're the swing voter. They all compete for your

vote. But you do have to get out of this situation at some point: remember, you need to actually believe in something in order to change the world. Here are some things you might want to consider:

- Acknowledge that your scepticism is a healthy initial approach to ideology – no one wants to end up being a Scientist.

- Realise that even Maths is based on axioms we choose. Yes, they tend to be self-evident, but we still need axioms to say something meaningful about anything.

- Set up your first principles: these will be your axioms. You can ground them in intuitions if you want: things you feel that are essential and self-evident. You might feel that equality, freedom or universal happiness is

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**“You need to actually believe in something in order to change the world”**

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a basic principle in which you can ground your ideas.

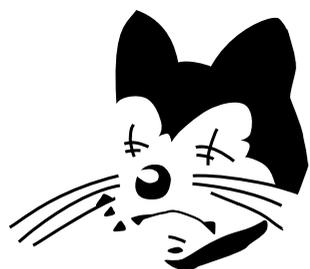
- Once you are firm in your ground, start moving into the other side of the spectrum. Tread slowly but firmly. You can approach it in a Cartesian way, if you like, doubting everything you know and accepting things very carefully.

- Realise that there are no right or wrong

answers, and that what matters is what you've decided to matter, so it's important to you and so you're willing to convince other people about it.

And just like that you can end up being a healthy sceptic with well-grounded ideas. Combine this with a little passion and perseverance and you'll end up changing the world.

Oh, and to those of you who thought this article was about how to vote in the union elections: I'm sorry. I have no clue. Maybe try to make an effort and read the bloody manifestos. But we both know you're not going to do that, so just look at the pictures and vote for someone who doesn't seem incompetent. Who the fuck cares?



## Staff strikes and workers rights – how can we bring true equality?

*This week, with all the strikes going on, Grumpy Bastard looks at why they are happening at all. And they have a solution to stop this happening again.*

### COMMENT

#### Grumpy Bastard

*Comment Writer*

This week, Imperial has been shoved rudely into the modern age by encountering workers' rights, an issue that has plagued employers since the Black Death wiped out the majority of the peasants. The immediate consequence of this was that the nobles and landlords had to lighten up on the oppression because there weren't enough serfs to slave in the fields. Over time, the cause of workers rights has been advanced by the

threat of violence by revolution or revolt as well as the establishment of unions. Union has almost become a dirty word since their defeat by the Iron Lady in the 1980s, but they probably have had a net beneficial effect for those of us unfortunate enough to have to work for a living.

Apparently, the issue that has brought the meek and mild lecturers onto the streets is that Imperial is now changing its pension system. Beyond that, I, like most of my fellow students, have no idea what is going on. I tried reading the handout that one of the union representatives was aggress-

sively forcing on those of us innocently wandering through Sheffield, but I nearly fell asleep halfway through the words “individual investment scheme.” I have decided, like the rest of the world, that facts are boring and I can rely on the more compelling and probably accurate assertion that the college is evil for attempting to take the pensions away and I should stand with the workers; or at least not resent them too much for robbing me of my education.

The alternative narrative, the one that is completely devoid of empathy and therefore will appeal to physicists, is that, as I

own the lecturers because of the substantial tuition fees I pay, they are putting me at a considerable disadvantage for daring to voice these socialist demands. Some have even argued for a refund of fees for the lectures and tutorials missed as the workers of Imperial College crusade for fair treatment, but I'm unsure if they want compensation from the College or the lecturers themselves. This is of course a ridiculous stance to take, as the College would sooner part with a good third of their research staff before re-funding students. Heaven forbid that the President should take a pay cut.

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**“The next antibiotic resistant plague will restore equality”**

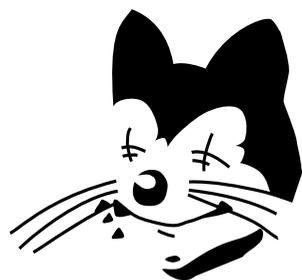
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This of course follows the general trend of a reduction in standards of pensions worldwide. Carillion, the construction firm, went bust following a gaping hole in its pensions scheme, and BHS employees suffered from a colossal hole in their pension scheme after

Philip Green had stripped the company of all its value and used the wealth to build a fleet of yachts and become the king of the sea. I for one welcome this lack of foresight and preparation for old age which will allow further concentration of wealth in the hands of those that are already incredibly wealthy. I mean, being a peasant in pre-plague Europe really wasn't that bad if you're a big fan of mud, beatings and no human rights. We just have to hold out for the next round of antibiotic resistant bacteria for society to become equal once more.

## COMMENT

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# Rape law, rape culture, and what Imperial can do about it

*An anonymous writer gives their thoughts on how Imperial should tackle sexual harassment on campus.*

## COMMENT

## Anonymous

Comment Writer

Did you know that the police estimated that upwards of 95,000 rapes take place each year in England and Wales? And yet the Crown Prosecution Service (CPS) only managed to convict a rapist in 2991 cases in 2016/17 – that’s only 3%. The police estimated that upwards of 517,000 sexual offences occur each year in England and Wales and yet the CPS only managed to convict a perpetrator in 10,721 cases in 2016/17 – that’s only 2%.

Recent events have brought the issue of rape and sexual assault into the public spotlight, and with dismay have we seen public figures exposed for their abuse of power. Rightfully so we should be outraged at them and their actions; but we cannot solely be outraged at the perpetrators, we must acknowledge the role the criminal justice system (CJS) has played in allowing the perpetrators to go unchecked. We must not blame victims for not coming forward – victim-blaming is toxic and damaging. Instead we must hold our CJS accountable for having had policies in place that did not allow for a fair trial, and left victims feeling silenced. And let us never forget what researchers found when analysing the institutional culture at Imperial: “Despite Imperial’s ‘no tolerance’

stance on harassment and bullying, women in particular reported being silenced in various ways.”

An often-cited reason for perpetrators evading conviction is that victims need to speak up more and go to the police. Let’s explore this statement by trying to understand what happens when victims do go to the police. From Oct 2016 to Sep 2017 the police recorded 48,773 rape offences, an increase of 29% on last year. The police then assigned an “outcome” to each reported case. Rape case outcomes in the year ending March 2016, as of July 2017 (1 year and 3 months later) included:

- ~25% of cases had still not been assigned an outcome, i.e. after 1 year and 3 months the police had still not decided what

to do.

- ~35% of cases faced evidential difficulties where the victim did not support action – what are the police doing to make 35% of victims that went to the police for justice later withdraw support?

- Only ~10% resulted in a suspect being charged or summonsed. This needs to be seen in context of the police identifying a suspect in at least 96% of rape cases

Cases with a charged or summonsed suspect will be brought to court by the CPS. With a long investigation period, only a small fraction of reported cases resulting in a suspect being charged, and the fact that fake rape accusations almost never happen one would expect that once in court, cases would be resolved quickly

and almost always end in a conviction. But no, of the 5190 cases of rape the CPS completed in 2016-17, the prosecution was unsuccessful a shocking 42.4% of the time, only managing a conviction in 2991 of the cases. In addition “the median number of days for rape offences to be assigned an outcome was 144 days”; the median time taken from charge to completion for rape cases was 259 days, and has increased every year since 2010. 259 days + 144 days = 403 days. And that’s just the median; being unlucky can mean waiting much, much longer. Requiring anyone going through a rape trial to wait such a long time is just not fair.

48,773 cases of rape reported are to the police, and only 2,991

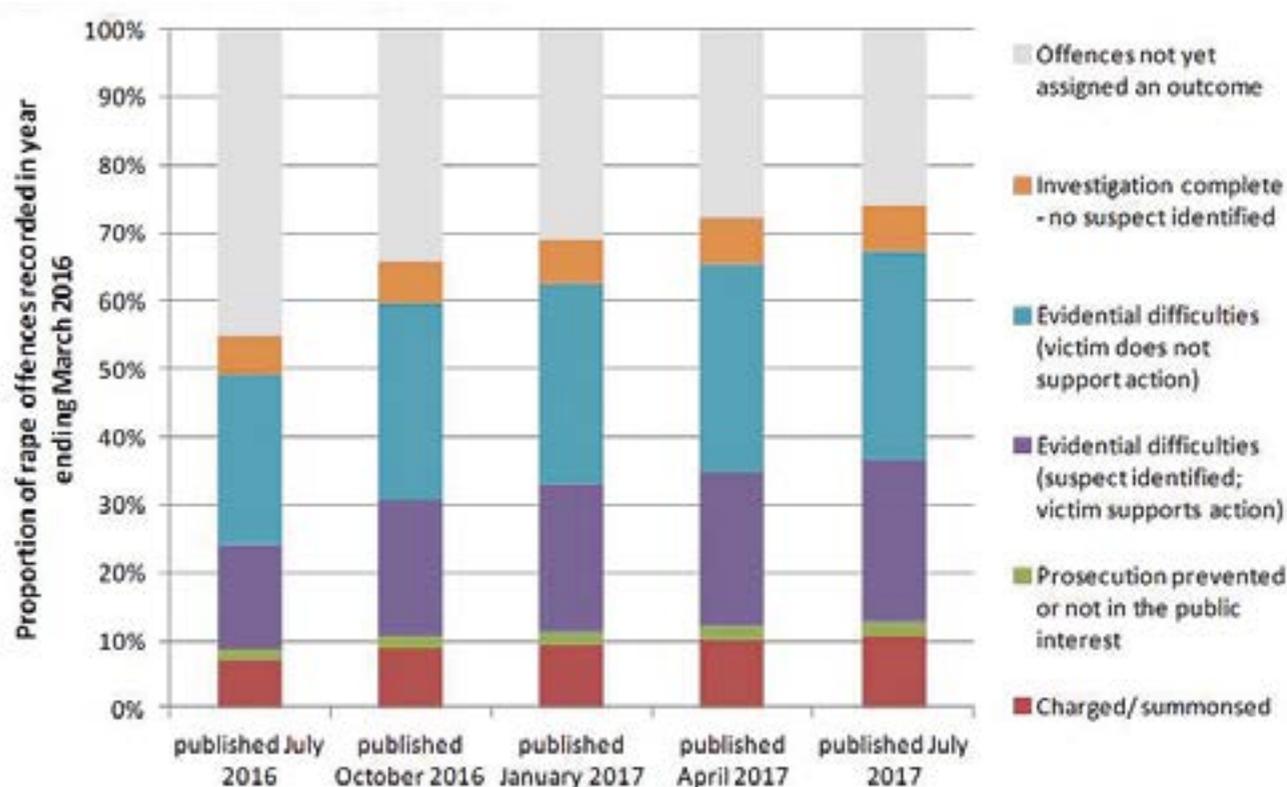
convictions by the CPS in 2016/17. And then there’s the issue of secondary victimisation, yet another aspect making interacting with the judicial system even more painful. Hopefully this will show that encouraging more victims to come forward is not enough. We need lasting policy change to make the CJS perform much better than it is now.

Note that due to the aggregate publishing of data, tracking of individual cases is impossible, thus the number of reported cases in 2016/17 will not be directly comparable with the number of convictions in 2016/17, as cases take a long time to complete. “Total reported cases in 2016/17” refers to when the incident is reported, not when the incident took place (i.e.

it includes non-recent cases). It would therefore be misleading to think that  $48773/95000=51\%$  of incidents last year were reported to the police. For consistency I simply presented the most recent data.

It is important to remember in this discussion that while the system can still get better, it has most definitely been improving a lot over the last ten years. In 2016-17, as compared to 2007-08, prosecutions for Violence Against Women and Girls have increased by 48.8%, with a corresponding 62.7% increase in convictions (from 51,974 convictions to 84,565); convictions for sexual offences including rape and child sexual abuse is up 71.5% over the same period. The CPS has published the report “Rape Action Plan” to outline tangible changes being made to make court cases fairer, including this reassuring message: “shifting the focus away from the credibility of the victim to the credibility of the overall allegation. This will also involve consideration of the behaviour of the defendant including around seeking consent”.

I think Imperial should incorporate this thinking when dealing with sexual harassment and assault. Improvements in police reporting standards, and high-profile cases like Operation Yewtree and #metoo, have encouraged more victims to come forward; but this is putting the system under pressure, causing case completion times to increase and conviction rates to decrease. If the police and CPS



Outcomes assigned to rape offences in the year ending March 2016 // Home Office

# COMMENT

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need more resources I hope #metoo can be an occasion for the public to realise that maybe we should give that to them.

But the CJS still isn't perfect, and that's where Imperial comes into the picture: for women, being a full-time student in the UK is associated with a 6.8% increased risk of victimisation. I think both Imperial College Union and the College need to play a role in making Imperial safer.

Two years ago, Emily-Jane Cramphorn, our former Deputy President (Welfare), posted an article called "Blurred lines?" in which she argues: "A lack of education and discussion about sex and consent sits at the core of rape culture and until we address this nothing will change." I agree that open discussion is crucial, but I think there is a flaw in thinking like this about rape culture: It allows perpetrators to argue that they "weren't educated on the fact that

it's wrong to physically attack others", and it leads to these traumatising attacks being treated as misunderstandings. An attack is never a misunderstanding. Ignorance of the law should never be an excuse. According to Lundy Bancroft, consultant on domestic abuse, author, and winner of the 2004 Pro Humanitate Literary Award:

"An abuser almost never does anything that he himself considers morally unacceptable... an abuser's core problem is that he has a distorted sense of right and wrong"

Any abuser found guilty by Imperial obviously needs to realise that what they did was wrong, but since Imperial is not a prison, I do not believe Imperial should ever act as a correctional institution e.g. by issuing consent training. Expulsion is both fairer and safer.

Don't get me wrong: I understand the utopian dream as presented by Cramphorn that education

will prevent a person from doing wrong things in the first place but preventing a person's first offence is an incredibly complicated issue. Given the scale of the issue, and the outrageous prevalence of repeat offenders, let's start with what would also have a great impact, but would be much easier: preventing subsequent attacks from the same person.

**"I don't think it's reasonable for Imperial to not take serious measures to prevent these crimes"**

Roughly one in four (26%) of students at UK universities have suffered unwelcome

sexual advances, defined as inappropriate touching and groping. Imperial has roughly 17000 students, so one would expect roughly 4420 Imperial students to have experienced such an incident. A freedom of information request revealed that the number of sexual harassment/sexual assault/rape complaints dealt with by the College between 2010–2017, in total was 11. This would lead us to believe that roughly 0.25% of sexual harassment/assault cases are reported to Imperial. Clearly there's room for improvement.

Law and policy change at a societal level is difficult and cumbersome but given the current state of how the judicial system handles sexual misconduct, I don't think it's defensible for Imperial to not take serious measures to curb these crimes from happening on their grounds by their students. A frequently cited reason for not reporting such

a crime to the police is that they "didn't think the police could do much to help". I think Imperial should implement a system so good at dealing with sexual harassment and assault that any Imperial student who doesn't believe in the police's ability to help them will go to the College instead. A system so good that no Imperial student will ever think of such a crime as being "too trivial to report": a barrier identified in the recent sexual assault and consent survey at Imperial. I hope Imperial will consider the following:

- Implement an anonymous reporting system equivalent to the one already available for Imperial staff. Students don't want to be harassed, discriminated or bullied either.

- Disallow the Union from handling cases involving sexual misconduct since only the College can expel students. This would

prevent serious cases from ever being passed back and forth between the Union and the College, thus curbing distress. Currently, under 17% of the Imperial Student Disciplinary Procedure from 2017, the Union is "expected" to let the College deal with serious incidents on Union grounds, but I think these cases should be handed over by default, not by expectation.

- Accountability: Tangible and public promises. I think Imperial should issue a promise of how quickly they will resolve cases. This could be of the form "confirmation receipt of your complaint within 24hr" and "completion of X type of case within Y months." This will give victims an idea of what to expect from the College and give the entirety of the student body tangible metrics to hold the College procedural system accountable to.



## How we sometimes want to do too much, and what we can do about it

Comment writer **Abdulrahman Alhadad** talks about the subtle difference between working a lot and giving a lot.

### COMMENT

**Abdulrahman Alhadad**

Comment Writer

We often hear the criticisms of others telling us that we do not do enough of what we are supposed to. Seldom, however, do the words, "you have to do less" fall upon our ears.

In a society where more is merrier, and bigger is better, we strive to accumulate all that we

can as fast as we can. This means more studying for students, more exercising to reach our fitness goals, and more work to earn more money! Therein arise the terms workaholic and the like, which our disdain for is nothing more than a pseudo-attempt to ease our minds at the mention of those who are bigger and better than ourselves. Deep down inside, however, we find our inner voice questioning itself, asking itself "how do they do it?"

I, for one, have lived and breathed the negative sides of too much. For

months on end, I worked and worked. Praised by my family, friends, and acquaintances on my progress, those were but empty words falling upon deaf ears. I wanted more. And so, to get more, one must do more, I guessed. But how wrong I was...

Attached to the good blessings that I accumulated from simply not trying, I could not accept that what was in my hands was steadily and surely slipping away like sand. I worked day and night, grabbing onto every passing grain; and the more I focused on holding

onto one, the more the rest slipped beyond my vision. I was too blind to see that the road I was to take was of another colour and, better yet, of another world.

LESS!!

Less was the route I should have taken embarking on my long and arduous journey. Walk slower, take it easier, worry less! Less is the mentality of a runner, realising that a marathon is not to be sprinted. Less, declare the words of a writer cutting down to linguistic perfection. Less flows the hand of an artist

sculpting a grand masterpiece to a fault of none. As Antoine de Saint-Exupery would say, "perfection is achieved not when there is nothing more to add, but when there is nothing left to take away."

But one may ask, what if I want to get there faster? What if I want to reach the end in half the time? Is more not then the solution? I never said to work less, but rather to worry less. As a sprinter who trains to reach the finish line quicker, so must you first train your ability to accept results as they come in order to further

yourself. Focus not on attaining more, as there is simply too much out there to be attained, but rather on giving more, as that is in plentiful abundance, and how sweet the fruit of the labour of giving. Conquer, and there will always be those who have conquered more. Find, and yet persists the fear of losing. Give, however, and you need never worry about keeping. Give, and you will effortlessly be brought closer to the things and ones you love. Is that not truly why we work?



**#leadthechange**

## **Nominations close**

23:59, Sunday 25 February

## **Candidates Revealed**

Imperial College Business School foyer

12:30, Friday 2 March

Come meet the candidates as we kick off voting and campaigning.

## **Voting begins**

12:00, Friday 2 March

**Stand now or nudge someone**  
**[imperialcollegeunion.org/elections](http://imperialcollegeunion.org/elections)**

# SCIENCE

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## How brain chemicals make you crave alcohol

### SCIENCE

**Sarah Wong**

Science Writer

After a demanding week at university, it is finally Friday and your friends have suggested to go for drinks later that evening. ‘Ok... just one drink’, you replied, but several hours later you are smashed, and walking in a straight line is practically impossible! It is apparent that a hangover is coming your way, and you think to yourself – why did I not stop after the first drink?

Although it is funny to watch your drunk friend hitting on a statue (trust me it is hilarious) alcoholism is not a laughing matter. It gravely impacts on the lives of many individuals, and alcohol-related diseases put a heavy

burden on our healthcare system and the economy. Hence, it is important to understand the disease in order to develop better treatments for alcohol dependence.

A new therapeutic target was investigated by a research group led by Hu Cheng, a senior scientist in the Department of Psychological and Brain Sciences in Indiana, USA. They showed that a chemical in the brain formally known as a neurotransmitter, mediates cued alcohol cravings.

Alcohol cravings, like hunger, can be triggered by smell, sound, and visual cues – for example pictures of alcohol. In our daily lives, we come across this on the high street without even realising it, such as when bakeries entice customers with their distinct aromas! More often than not we end up strolling in, which



Shots, shots, shots // Wikimedia

is due to our brains associating these cues with rewards. This is attributed to a specific neurotransmitter called glutamate, which is a key regulator in the reward pathways.

In our brains, levels of neurotransmitters are maintained with a fine balance. A tip of this delicate equilibrium is associated with diseases

such as depression and Parkinson’s disease. Since the anterior cingulate cortex (ACC), along with glutamate are both involved in the brain’s reward network, unsurprisingly, a change in the level of the neurotransmitter has been linked to alcohol addiction.

Previously, it has been reported that ACC

activity is related to other forms of addiction such as nicotine and illicit drugs; however, the underlying neurotransmitter changes related to alcohol craving was unknown.

For this reason, the research group studied and compared brain scans of different groups using imaging technology such as magnetic resonance spectroscopy, with a focus on the level of glutamate in alcohol-dependent patients versus a control group. The research group demonstrated the area involved in glutamate signalling overlaps with the brain regions that responds to alcohol-related cues, thus implicating the role of ACC and glutamate in mediating addiction.

Furthermore, when the alcohol-dependent group were shown pictures of alcohol, glutamate concentration in the ACC

significantly dropped. In the control group with no alcohol dependence little or no change was seen in their glutamate level. This result nicely demonstrates the important role of glutamate in cue-induced relapse in humans, thus new therapeutics may now seek to target glutamate levels to manage addictions!

Though the study population size is quite small with only 17 patients studied, one cannot just yet reduce alcoholism to a problem to be treated by pills. Nonetheless, it is a great step towards understanding the biological causation of addiction. Moreover, we can start helping those in need as well as breaking down the social stigma against those who are physically dependent on alcohol.

## Connect with conservation – photographing extinction

### SCIENCE

**Steve Allain**

Science Writer

Looking forward to the future of species conservation, the depressing and sobering truth is that some species may not be around for future generations to enjoy. The only evidence of their existence will be media, and written reports or books documenting their ecology and distribution. How will future generations know what some of the more obscure endangered species looked

like, such as insects and other less charismatic animals? The chances are that photos taken by both amateurs and professionals will stand the test of time.

One gentleman, Joel Satore, has made it his life’s mission to photograph the approximately 12,000 species of animals currently residing in zoos, aquariums, and rescue centres. In 2005, Joel started the ‘Photo Ark’ in an attempt to capture portraits of all of these species in to raise awareness of their plight. Each species is photographed against a black or white background in order to ensure that each portrait

is comparable. The stark contrast draws attention to the eyes of the subject, therefore connecting the observer with that particular species. As of the time of writing, a total of 7,521 species have already been photographed and become part of the growing Photo Ark! Joel estimates that it will take him an additional 15 years to finish photographing the remaining ~4,500 species.

Joel’s goal is simple- to try and show the world of biodiversity in a new light, and attempt to get everyone to care about the species currently facing extinction, whilst there is still time to act. This project has recently

joined in a partnership with *National Geographic* in order to help raise awareness and funds to aid Joel’s mission. The fortunes of some species since the start of the project have changed for the worse. One of these is a species of frog which became extinct in September 2016, when the last known individual of the Rabb’s fringed-limbed tree frog, nicknamed ‘Toughie,’ passed away. The species suffered heavy declines in Panama due to disease; the last known individuals were taken into captivity to establish a captive breeding program.

Unfortunately, this



Not the tree frog that went extinct... // Wikimedia

failed with the last female dying in 2009, meaning the species was functionally extinct until Toughie’s death. Hopefully the other species on the Photo Ark will gain

the awareness, funding and the protection they need in order to recover and remain in the wild for future generations to enjoy.

# SCIENCE

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## Smells like Quantum?

*Can physics provide a solution to an age-old biological question?*

### SCIENCE

**Jonathan Davies**

*Science Writer*

In recent years, science has given us incredible insights into the way our universe works: we have sequenced the entire human genome, broken matter into the most fundamental building blocks, and looked back to the seconds following the Big Bang. You might think that by now we would have answered simple questions such as ‘how exactly does smell function?’; however, you may be surprised to know that academics are still unsure as to the precise mechanics of one of our five basic senses.

This problem is slightly more complex than you might think. A simple view one might have would be that when smelling a substance, a chemical reaction of some sort may occur, whose products in some way triggers a neurological response.

Consider limonene: (S)-limonene smells of lemon, while its mirror image (R)-limonene smells of oranges. Consequently, researchers began to investigate, and this led to the development of the ‘lock-and-key’ hypothesis, which states if the receptors are presumed to work as locks, only a complementary key (or odorant molecule) of exact shape would bind and trigger a response.

This sheds some light to the above example. The two mirror images (also known as ‘enantiomers’) of limonene have slightly different shapes and so will bind to different receptors, and thus will

smell differently. Fans of murder mysteries may be able to spot a fundamental flaw in this theory. Using the example of cyanide (which has a very characteristic almond smell due to the chemical benzaldehyde), the two enantiomers of this molecule have very different shapes yet smell almost identical. Furthermore, there is also the issue of the fact that the sense of smell is incredibly selective, as indicated by the orange-lemon example.

**“A number of examples show the lock-and-key model is not correct for our sense of smell”**

The proteins in our nose, however, are prone to ‘non-specific binding’ such that if the key is not a direct fit, binding would still occur. In a recent investigation, bees were able to tell the difference between two versions of the same molecule, with deuterium substituted for hydrogen in one of the odorants.

Hereafter, physical chemists decided to take on this problem. This question is one of many in recent years where scientists have turned to quantum mechanics to explain a peculiar process. In this case, the suggested culprit was ‘quantum tunnelling’ which forms the basis of what is known as ‘the vibrational theory of olfaction.’

The theory indicates that the way in which we classify odorants is by



Stop and smell the flowers // Wikimedia

their chemical bonds. For instance, molecules containing hydrogen-sulphur bonds all seem to smell of rotten eggs, irrespective of their shape.

The model states that upon smelling, electrons pass between energy levels in neighbouring atoms within our scent receptors, thus stimulating signals that are sent to our brains. The energy difference between these levels is greater than the energy that the electron possesses itself.

Classically, these transitions would be prohibited, but in quantum mechanics there is a probability that electrons can make these seemingly impossible jumps. This is made possible by a process known as ‘inelastic quantum tunnelling’.

In order for this to take place, the electron must offload a precise amount of energy, which is only possible if there is something there to absorb the energy, such as a molecular bond. Tunnelling will only occur if the vibrational frequency of the molecular bond is

exactly the right value to absorb the electron’s offloaded energy. We therefore have a mechanism through which our noses can distinguish different smells by their bonding, rather than their shape. The problem, it seems has been solved.

Not so fast! We have already seen that our noses can differentiate between enantiomers of the same molecule, but the vibrational theory in no way accounts for this. Thus, the model might be a bit more complicated than first thought. Some have suggested that in ‘combination modes’ where the molecule not only vibrates but also twists, tunnelling properties may vary sufficiently between enantiomers enabling them to be distinguished.

Unfortunately, it has been found that this process only works for a handful of molecules, as electron tunnelling is heavily dependent on pressure and temperature. Higher pressures result in the molecules ceasing vibration, as they constantly collide with other mole-

cules. This implies that beyond a certain pressure we should stop being able to smell.

The two competing theories appear to have reached a standstill in their ability to explain this everyday phenomenon.

**“The two competing theories have been combined into the ‘swipe-card’ model”**

One solution to this is obvious – combine both theories into one. The ‘swipe-card’ model has recently risen in popularity to become the leading hypothesis for the true nature of smell. It is thought that an odorant encodes information about its smell in both its shape and molecular bonds.

The model is so-called

due to the process it is thought to be analogous to, which is exactly how credit card machines operates.

Firstly, the card must be the correct thickness to physically fit in the machine and secondly, the information encoded on the card is electromagnetically read. The process may be similar in olfaction whereby the odorant is first identified by its shape, by binding to a complementarily-shaped receptor, and then is classified by its chemistry through electron tunnelling.

This theory still requires much work; however, many individuals in the field are convinced that we are on the brink of finally being able to truly understand one of the key facets of the human sensory experience!

It seems that the realm of physics, much derided for its lack of applicability in the modern world may yet offer answers to the most real-life of questions.

# SCIENCE

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## Frontiers in Traumatic Brain Injury 2018

### SCIENCE

#### C3NL

Research Group

Following the success of the inaugural Frontiers in TBI (FITBI) conference in 2017, we welcome you to the 2<sup>nd</sup> FITBI conference this July at Imperial College London.

A two-day programme of talks, debates, and poster sessions that will cover scientific advances into the fundamental understanding of traumatic brain injury and its clinical management.

The conference has a broad scope and will be of interest to a range of scientific and clinical disciplines working within TBI. There will be a programme of invited talks from early stage researchers, as well as a faculty of internationally renowned scientists. Topics covered in this year's conference will include:

- Neurodegenera-

tion and TBI: Prof. John Hardy

**“It’s an excellent opportunity for researchers to showcase their latest work”**

- Functional disorders and TBI: Dr. Alan Carson
- Computerised cognitive assessment and training: Dr Adam Hampshire
- Disorders of consciousness: Dr Srivas Chennu & Dr Davina Fernandez-Espejo
- Non-invasive brain stimulation: Dr Lucia Li
- Pre-hospital care: Prof. Mark Wilson
- Computational modelling of TBI: Dr Mazdak Ghajari

• Advances in neuroimaging: Prof. David Sharp

• Sports and military TBI

• Paediatric TBI

This year we are introducing a podium poster presentation session for a selection of the top submissions for the conference. Quick-fire presentations (~5min) will allow a wide range of submitted work to be highlighted. This is an excellent opportunity for early career researchers to showcase their latest work.

FITBI 2017 included two lively interactive debates (available online <https://goo.gl/Th4qr8>). Mark Wilson & Ian Walker debated whether cycling helmets should be compulsory. David Sharp & Lee Goldstein clashed over whether ‘concussion’ is a term best consigned to retirement. These were very entertaining and similar debates will be included in this programme.

This will be a dynamic



and intimate conference, small enough to facilitate networking and the formation of new collaborations. Abstract submission

for the poster competition and Early Bird registration will be open until the 26<sup>th</sup> of May (£180/£130 students/trainees).

For more information and how to register, please visit: [www.frontiersintbi.org](http://www.frontiersintbi.org) @FrontiersinTBI



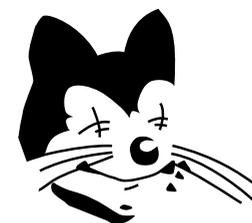
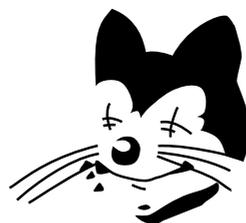
# Felix

## WEEKLY

## New Year, New News!

Felix are setting up a weekly newsletter, delivered straight to your inbox. Get all the best news, culture and sports every week.

Get the cat on the go!



# Sweat analysis – a new direction for wearables

*A wearable microfluidic sweat analytics device has progressed from the lab to use in numerous organisations.*



Gathering information from perspiration // Creative Commons

One drawback of this sweat analytics system is that the information is provided through colour changes that the research team claims qualitatively relates to concentrations of different substances. This raises the question of whether the colours can be clearly distinguished by people who have a certain type of colour blindness, for instance red-green colour blindness.

**“Contained are reagents that react with sweat to produce color changes”**

## TECH

### Krithika Balaji

Tech Writer

Northwestern University professor John A. Rogers last Friday published, along with other scientists, his research on a wearable microfluidics sweat analytics device in the journal *Science Advances*. He is now collaborating with many partners such as Gatorade, the Seattle Mariners, and the U.S. Air Force to further develop, test and bring the device into wider distribution.

The device was initially introduced in 2016 and, as the name suggests, it analyses sweat and its biomarkers produced from eccrine sweat glands with high accuracy and in real time. Information about hydration levels is communicated to the user with a simple visual read-out – nothing fancy. The device

is soft and flexible and it sits on the skin. It is a little larger than a quarter coin and is roughly around the same thickness as well. Earlier designs included measurements of chloride loss, glucose, lactate, and pH levels in sweat.

**“The sweat analyser is soft and flexible, and it sits straight on the skin”**

Over the past year and a half, newer designs also measure concentrations of heavy metals such as lead and arsenic, along with urea and creatinine levels.

This device allows people to monitor their sweat rate and electrolyte loss so that they can keep hydrated and replenish their electrolytes when

needed. It also provides real-time information on how their sweat chemistry changes during the day or when doing a set of exercises.

“Now we have devices that fill sequentially in time. This is important because variations in sweat biomarkers give a sense of fatigue level as you’re exercising. We didn’t have that capability previously,” said Rogers.

The target consumers are widespread. Not only can it be used on a daily basis to monitor hydration, it can also be used by athletes and military personnel as the information provided will be detailed enough to suit their needs. If a person is using the device while working out, however, this doesn’t mean that they have to pause their workout to comprehend the information collected by the device. This is because sweat travels through the microscopic channels within the device and into

different compartments. In those compartments there are chemical reagents that react with the sweat to produce visible colour changes. Those colour changes relate to concentration of different substances like chloride or electrolytes.

**“These devices can measure the user’s sweat underwater”**

“Most people want to know if they are losing a lot of chloride, a little bit or almost none,” Rogers said. “They can just eyeball the device and determine if their electrolyte levels are high, medium, or low.”

A unique aspect of these devices is that they can measure the user’s sweat underwater, for instance

during aquatic sports. This is achieved by using new adhesive materials and microfluidic designs that have water-tight seals. This ensures that only sweat, and not water surrounding the person, enters the microfluidic channels. The sweat analytics system is now routinely used by the swim team in Northwestern University as it allows the coach and the swimmers to be better informed on levels of dehydration during a practice session.

Jarod Schroeder, head coach of Northwestern’s men’s swimming team said: “Skin-mounted microfluidic devices from the Rogers group allow us, for the first time, to determine sweat and electrolyte loss continuously, as it occurs in the pool during swimming, without any adverse impact on our athletes... The remarkably high levels of sweat loss that occur in the pool demands careful scheduling for rehydration.”

Other drawbacks are that the device can only be used once for a few hours so the device isn’t ideal for activities that take up a lot of time. A person who uses it regularly would have to keep buying these systems as they use it up.

Despite these disadvantages, Epicore Biosystems, a start-up founded by Rogers’ group through Northwestern’s Innovation and New Ventures Office, has established large volume manufacturing technologies for these microfluidic systems. In the future, along with making it low-cost, the company plans to co-package the systems with products in related lines, for instance nutrition, skin health, cosmetics and sports hydration products. The company is also planning on making them usable in clinics and rehabilitation centers.

## ARTS

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Alan Mahon and Josh Williams are brilliant as the gay couple Mikey and Casey // Keith Dixon

# Love, Life, and Cocaine on an Irish Rooftop

*John Donovan's debut play about identity is a triumph.*

## ARTS

**IF I WE GOT SOME MORE  
COCAINE I COULD SHOW  
YOU HOW I LOVE YOU**



**Where?** Vault Festival  
**When?** Until 25 Feb  
**How Much?** £14.50

**Vaishnavi Gnananathan**  
*Arts Writer*

Casey and Mikey are stuck on a rooftop, waiting for the cops to drive away – they’ve just robbed a petrol station and a house- Casey’s house to be precise. It is on this roof that they’ve found themselves cornered by the police. It’s not all bad though: their robbery has been somewhat successful – they’ve managed to grab a bag of cocaine and a bottle of whiskey to share between them. This is the setting of John Donovan’s debut play – two young men stranded on a roof in

Ennis, a small, rural Irish town.

Despite the deceptively simple premise, *If we got some more cocaine...* is far from straightforward – through its two characters it comes to explore themes of identity and sexuality, family, poverty, small-town mentality, and much more. Yet, somehow, it never feels contrived.

Mikey and Casey are high on adrenaline and, soon, on coke; trying to find a way out of the situation they’re in. Mikey is eager to escape from the rooftop to get to the party they’re supposed to be going to – he wants to ‘show off’ Casey to his friends. Casey, however, is reluctant, almost content to stay where they are for just a little while longer.

Their respective attitudes to their sexualities is one of the main themes of the play. Mikey is out and proud and has been defending his sexuality through fist fights for years now. Casey,

however, is still in the closet, afraid of his violent and homophobic stepdad, who punches him for little reason, and is likely to be even more angry if he finds out Casey is gay. It’s more complicated though: despite Mikey’s apparent pride in who he is, he can’t come to terms with changing attitudes – his ex is getting married to another man, and he can’t understand their desire to publicise their relationship, stuck in a world where he feels he needs to constantly defend his sexuality. Casey is a similar contradiction: he is afraid to be out, but, at the same time yearns for Mikey to say he loves him.

Alan Mahon and Josh Williams are fantastic as Mikey and Casey respectively. Mahon is part of the original cast, having performed in the play since its debut in 2016, whereas Williams has joined the team for the play’s run at Vault Festival. Their differing experience with the roles really doesn’t

show though because they have a truly great chemistry and feed off each other naturally. There’s an awkwardness to their relationship that perfectly captures the confusion of the characters who are struggling to accept who they are to each other.

Williams’ Casey wears his vulnerability on his sleeve – he is so clearly young and afraid that you can’t help but feel for him. Mahon, though, takes this performance to another level entirely. On the surface, Mikey is aggressive and violent, easily picking fights; however, as the play progresses, Mahon peels back the layers of violence to reveal the tender and afraid young man hiding beneath.

The vulnerability of both young men is perfectly captured in a moment where Mikey asks Casey what he sees in him. Casey struggles to convey his feelings, simply stating that what he likes is “just...you”

. When questioned by Mikey, who in turn can’t bring himself to accept this unconditional affection, is convinced it must be his looks, or what he can do for Casey.

**“Within the space of a single conversation, Donovan manages to capture the complexity of entire lives”**

Georgia de Grey’s rooftop set is simple, but effective. Its role here is to allow the actors to own the stage. The intimate setting of The Vaults is perfect for this production and it really benefits from the proximity to the audience. Director Thomas Martin clearly

has a great understanding of Donovan’s work and beautifully captures the intensity of the relationship between the two men.

Despite the play being a single scene for one hour, it never feels tired or boring. The real star of the show, however, is undoubtedly playwright John Donovan. It’s hard to believe this play is his debut work and it’s beyond clear that his IARA award for best new playwright was clearly deserved. Somehow, within the space of an hour and a single conversation, he manages to capture the complexity of entire lives.

*If we got some more cocaine I could show you how I love you* is independent theatre at its best. The Vault Festival is the perfect place for this play and it is more than at home in a programme full of stellar productions and innovative storytelling. It’s a pity that its run at Vault is so short because this play is one that really deserves to be seen.

## ARTS

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Baffling, bright, and bonkers indeed // Clive Baroda

## *Iolanthe*: an odd choice for the current climate

*ENO's restaging of the 19th century comic opera fails to amuse.*

## ARTS

## IOLANTHE



**Where?** London Coliseum  
**When?** Until 2 April  
**How Much?** From £12

**Olly Dove**  
*Arts Writer*

**B**affling, bright, and bonkers would be an accurate way to sum up the English National Opera's take on *Iolanthe*. Having originally been performed back in 1882, the satirical comedy about the House of Lords versus a band of fairies has been somewhat rejuvenated, including a Boris Johnson look-a-like riding along on a bicycle.

To an opera-novice such as myself, the phrase 'Gilbert and Sullivan' had previously meant very little. Now I know that Gilbert and Sullivan were co-creators of a range of

comic operas back in the 19th century, including *Iolanthe*, a baffling tale of Iolanthe the fairy, who was banished from Fairyland for marrying a mortal man. Fast-forward twenty-five years and Iolanthe's son, Strephon, is in love with a shepherdess, but unable to marry her as her guardian and his fellow politicians are all in love with her too. What may sound like a sweet story of fighting for true love is actually a lot creepier than it first seems.

It seemed odd that in 2018, when awareness of sexual harassment is rising, an opera in which a scene with twenty old men arguing over a nineteen-year-old woman would be allowed to go ahead and even be seen as comical. It was an uncomfortable scene made more bizarre by the shepherdess' actual guardian (and therefore father-like figure) allowing it to happen and participating in it himself.

In defence of the show,

it was written at a time when societal rules were drastically different to our own, and, for the time, perhaps the show was somewhat successful in displaying societies with both women and men in leadership roles. Designed as a comical satire, it is evident that the elderly politicians aren't exactly model designs for authority figures, and the lives of both fairies and mortal men are indeed improved by the presence of the other. Or, at least, everyone seemed happier.

Beyond the obvious plot flaws and peculiarities (the fairies feeling giddy over their nephew is nearly as disturbing as the politicians fighting for the shepherdess), the show has its positive moments. The opening of the show was a purely instrumental number, with Timothy Henty doing a grand job of conducting a team of talented musicians. Their work was the most impressive aspect of the night, especially when

Henty politely laughed along with a joke about his bald spot, delivered by a gently fireman-esque character.

The fireman, acting as the emcee for the night, introduced each act with a repertoire of mildly funny jokes and even some impressively self-aware jokes about how middle class the audience was. It was evident that the humour he was attempting at wasn't designed for a twenty-something year old student, but even I would admit his extinguishing of the fire effects during the show was genuinely amusing.

Speaking of humour, most of the jokes throughout the production passed straight over my head. A prime example being the odd farmyard animal – including a unicorn – randomly appearing on stage. What seemed to me as a misaimed pantomime gag clearly worked as laughter erupted around me, but by the fourth sheep I had still not caught

up with the herd.

Cal McCrystal, a director and actor known for his comic consultancy work on films such as *Paddington* and *The World's End*, has recently turned to opera as a new adventure. The director, openly acknowledging the satirical nature of *Iolanthe*, decided to go ahead with the political jokes despite the current situation of British politics. Despite his supposed expertise, however, the few jokes that succeeded were repeated over and over until the audience was left with an uneasy feeling of a sitcom audience following a sign saying 'laugh'. A prime example would be the use of stage hands dressed in black morph suits blindly searching around the stage for the props they were putting out. What was at first giggle-worthy grew into a sigh by the end of the song.

Logistically, the production was an overall success. The stage was

colourfully decorated, an impressive large train bursting through a background garnered the awe it deserved, and the costumes were aptly colourful and fairy-like. The only two factors that would have benefited from alterations would have been the volume and subtitles. At times, the cast were on the quiet side, which was irritating during speech, but would have been fine during the songs as the songs were subtitled, had the subtitles always been on view. Repeated lines were sometimes only shown the first time of hearing. If you missed the line that crucial first time, tough luck.

Overall, *Iolanthe* had a community-hall feel about it, but the singers, despite whatever creepy lyrics they were singing, performed very well. Though, if you find yourself desiring an exploration of opera, it's probably best to start with another one.

## ARTS

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## Solo performance delivers insights on life

## ARTS

## GIRLS &amp; BOYS



**Where?** Royal Court  
**When?** Until 17 March  
**How Much?** From £12

**João Baptista**  
*Arts Writer*

I was not ready for it. Completely unprepared for such a simple but unbelievable performance by Carey Mulligan. Rather than overwhelming complexity, it is the simplicity of this beautiful show that leaves one overwhelmed, emphasised by the cosy atmosphere of the Royal Court Theatre.

With a small stage, no props, and a simple set, Carey Mulligan takes us on a personal journey, told

by a friend. Perhaps recognising how biased her opinion is, she provides details - memories that mattered to her and made her story unique. How lost she was in those early years of adulthood, how Southampton showed up on/in her way and how she told destiny to fuck off and went to Paris. Often, her easy speech brings out laughter in the audience.

Her story glides along, until she introduces us to her husband - the way they met, the way she had a complete disgust for the man. The simple and funny way of life of that man and how easily she, bit by bit, makes us fall in love with him too. How could we not? - that is the question.

The attraction of a normal and predictable way life shines over this couple as well: kids,

a house, jobs. At the beginning, this ideal life story seems to represent something for us, just like it had for her - but as she goes on, we are compelled to wish it does not anymore.

**"The simplicity of this beautiful show leaves one overwhelmed"**

She does not dwell on the major moments of her life, neither incidences of extreme sadness or joy. Much more relatable than that, they are the cherished moments that need no justification, and as the story follows its own way, it sets out the factors that

bring her life to where she is now.

In an impressively emotional performance, Carey Mulligan turns something that might have been a feel-good show into a much more insightful play about the most important aspects that rule our lives. Sometimes, there are things we cannot control, things that do not go to plan, life is a mess, it hurts, but we can make it work. Situations will leave us baffled, torn apart, but people are brave and bravery can be seen in the simplest acts of someone's life.

*Girls and Boys* is a simple show full of intention behind every sentence. Carey Mulligan begins with an ordinary story, where we find ourselves laughing at the most quotidian situations. However, she unexpect-



Carey Mulligan dazzles in *Girls & Boys*// Marc Brenner

edly transforms the story in such a way that we almost cannot accept that the person starting the story is the same one that finishes it.

As Carey's bright and conflicted husband bril-

liantly puts it, sex with a pretty girl without a soul is like wanking to a dress. So is watching a play that does not inspire reflection. Clearly, *Girls and Boys* was not the case.

## Flamenco absent in this Flamenco Festival show

## ARTS

## ISABEL BAYÓN AT FLAMENCO FESTIVAL



**Where?** Sadlers Wells  
**When?** Until 25 Feb  
**How Much?** From £12

**Jingjie Cheng**  
*Arts Editor*

I like flamenco dance and music, and was thus particularly excited about this show; however, perhaps because I chose the wrong show out of the various nights on offer, or because the festival's theme was not as I had anticipated - Isabel Bayón and Israel Galván's show, *Dju-Dju* was spectacularly bad - so bad, in fact, that I noticed several audience members

leaving halfway through the show.

For something billed as part of the Flamenco Festival, one would expect some, well, flamenco dancing. Instead, the audience were treated to a Jesus look-alike walking around the audience hugging random people, a keyboardist wearing, of all things, a dressing gown, and a white Christmas tree on remote-controlled wheels. Isabel Bayón, who is a classical flamenco dancer, hardly danced - there were only two scenes where she danced an appreciable amount of flamenco. Even then, these dances were only teasing - just as we thought we would finally get a decent amount of dancing, she stops - no dance lasted more than three minutes long.

When she did dance, Bayón was great - I caught snippets of the grandeur, energy and spontaneity of the flamenco art form that originated from the folk dancing of Southern Spain. There were elements of the dextrous footwork and fluid hand movements that make flamenco so well-loved.

Granted, the theme of this particular show was black magic and voodoo - practices that are entrenched in Gypsy culture, and thus, expressible in the flamenco dance form. However, I was expecting classical flamenco dancing inspired by motifs of black magic, but what we got was a bizarre narrative with flashing lights, stomping, lots of walking around, and only a light sprinkling of actual dancing. Perhaps



Some of the precious few bits of flamenco in the show// Alejandro Espadero

I should have known better - the choreographer, Israel Galván, is known for his avant-garde twist on flamenco performances.

In this case, the 'avant-garde' flavour was excessive, so excessive that it was simply bizarre, and almost disrespectful. The comic elements, such as Jesus controlling the Christmas tree or Bayón riding her broomstick,

quickly got tired and took on a crass flavour. I was almost angry watching it, angry at its debasement of the flamenco art form, and the joke on us that we were watching this thing on stage. At one point, the show was cut by a ridiculous video projected onto the stage, of some indistinct blurry footage that served no purpose whatsoever. In another instance, Bayón's fellow

dancers danced around while gliding around in a chair - what value that would add, I have no clue.

Fortunately, this show is only on one night of the festival, and it is over. I am sure the other nights of the Flamenco Festival will be better, or at least I hope so. If you decide to attend, I wish you a more enjoyable experience.



## Candidates Revealed

Come meet the candidates in The Leadership Elections at a special event to kick off voting on Friday 2 March. Candidates will be revealed in the foyer of Imperial College Business School at 12:30. Voting also begins 2 March and continues until Friday 9 March.

There are only a few days left to nominate yourself or nudge someone for a role. Nominations close 23:59, Sunday 25 February. Candidates for full time positions will also face off in a debate at the start of voting.

See the full schedule, stand for a position or nudge someone at [imperialcollegeunion.org/elections](http://imperialcollegeunion.org/elections).



## Only a few days left

The deadline for booking your VarsityFest ticket is fast approaching. You will not be able to buy a ticket after 10:00, Monday 26 February. This is one of the biggest events in the calendar so you don't want to miss out!

Imperial Medics go head to head with Imperial College London in 14 sports over several days of competition, culminating in the big event on Saturday 3 March at Heston.

Tickets include transportation, t-shirt, and entry to the afterparty. Book now at [imperialcollegeunion.org/varsityfest](http://imperialcollegeunion.org/varsityfest).



## Beat the stress

Free massages, mindfulness meditation sessions, games and giveaways? It must be time for Under Pressure 2018! The stress busting campaign is back next week to help us cope with the pressures of university life.

From Monday 26 February - Friday 2 March, the Union will be running activities to help everyone relax or find strategies to cope. Find us in the JCR at South Kensington Campus everyday 12:00 -14:00, or at any of the other sessions being run throughout the week.

For a list of all the activities, and for other resources to help you cope, visit [imperialcollegeunion.org/under-pressure](http://imperialcollegeunion.org/under-pressure).



## Support the strike

Imperial College Union continues to stand with staff in the battle to protect their pensions. The University and College Union has begun strike action to protest changes to their pension scheme. Here's how to show support:

**Picketing:** join staff at College entrances from 7:30 every day of strike action.

**Write to Provost:** Union President, Chippy, has already written to Provost, James Stirling, on behalf of the Union to express solidarity with staff. Help pile on the pressure by dropping him an email urging compromise.

**Talk to friends:** Talk to others about the reason for the strike and how to help. For more, go to [imperialcollegeunion.org/standwithstaff](http://imperialcollegeunion.org/standwithstaff)

# BOOKS

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## Raising the portcullis: uncovering queer literature

As part of the UK's LGBT History Month, Books Editor **Jingjie Cheng** introduces her rainbow reading list in the second article of the series.

### BOOKS

**Jingjie Cheng**  
Books Editor

The book that first led me to the wonderful world of queer literature was *Oranges are Not the Only Fruit* by Jeanette Winterson. As one of our A level texts, *Oranges* provided me with a first hand account of what it was like to grow up as a lesbian girl, especially within a conservative, ultra-religious family. A bildungsroman of a lesbian girl involves self-discovery, and an honest exploration of sexuality and identity. Packed full of quotable lines, both for their humour and insight, Winterson's novel was immensely enjoyable, and opened my eyes to queer narratives.

A few years after, I came across another Winterson book – *Written on the Body*, which was a loftier look at lesbian love, from a narrator that seems more settled in her identity than

in *Oranges*. I read it as a female narrator, but their sex is never specified – meaning that reading it as a same-sex relationship says as much about the reader as the author; or perhaps, how much the reader knows about the author.

The narrator is involved in a blissful relationship with a married woman, one that embodies passion, kindness, and innocence. In contrast, the heterosexual marriage is destructive and breaks things apart. Using descriptions of body parts to anatomical detail, the narrator sings her love and desire for her partner, embodied in the lyrical metaphors that worship her body in all its beauty and flaws.

Carol Ann Duffy's poetry celebrates same-sex relationships in lyrical form, painting images and creating metaphors that turn heterotypical romance and sex on its head. In her poem 'Girlfriends', the graphic nature of 'your mouth to the red gold, the pink shadows' is balanced



Andrew Garfield as Prior in National Theatre's 2017 production of *Angels in America*//Helen Maybanks

by the gentle, feminine colours, and the softness of 'shadows'. Lesbian sex is described as delicately beautiful - in the moment of climax she saw her 'fingers counting themselves, dancing' in the air. Rather than being focused on lesbian relationships, as the above are, Jackie Kay's *Trumpet* is a nuanced look at the ambiguity of gender demarcations in relationships, and the strength of love that transcends all societal boundaries.

The relationship between Millie, and her husband, Joss, who is a biological man living as a woman, has been distilled to the most pure form - not one between a man and a woman, nor between two women (as society tries to pigeonhole them as), but one between, simply, two people. The book follows the media's dogged pursuit of the matter of Joss' 'real' gender, as we see a family torn apart by attempts to label their relationship. *Trumpet* is an incredible exploration of how inflexible, yet in-

herently superficial, labels can be, and what it takes to shake them off.

The classic tale of gender fluidity has got to be Virginia Woolf's *Orlando*, where a young aristocratic man changes his sex halfway through the book and becomes a woman.

Gender fluidity and ambiguity permeate every aspect of the book, from Orlando's object of attraction as a man to her independent nature as a woman determined to publish her poetry. The moment of sex change is described as entirely mundane, where simply, 'he was a woman.' And then he went to have a bath. The unceremonial nature of the scene emphasises the smooth transition between the sexes, as if it was not a big deal at all. Orlando's gender identity at any point in time is determined by his 'performance', and is not an inherent fact.

LGBT themes have also flourished in fiction inspired by more recent history. Larry Kramer's

*The Normal Heart* is a play based on his own struggles to get AIDS in the gay community of 1980s New York recognised by the government, which, at the time, was seen as a 'gay disease' and largely ignored as people continued to die. This forms a significant part of the solidarity of the gay movement and fight for recognition.

**"The exciting diversity of the human community needs to be accessible and available"**

Just slightly further ahead in time, Tony Kushner's *Angels in America* explores the situation of AIDS in New York and how it impacts individual lives and relationships. Drawing parallels

between the relationship of a gay couple and the larger trajectory of America's society, the play explores the idea of 'movement' - society's relentless march towards progress, and the danger of stalling. 'The world only spins forward,' says Prior, a gay man stricken with AIDS, expressing hope for the future of the gay community - 'we will be citizens' - as well as hope for the future of America and its national consciousness.

Everyone's journey into queer literature is personal, and will be shaped by the specific books we chose to read at a specific times in our lives. These were the books that touched me and helped to lift the veil of the largely heterotypical literature out there by telling the stories from the margins. The exciting diversity of the human community needs to be accessible and available - as a celebration of difference, but at the same time also to combat bigotry and to tell others that they are not alone.



Carol Ann Duffy's poetry turns heterotypical romance on its head// Flickr/Lancaster Litfest

# BOOKS

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## ‘Black, lesbian, mother, warrior, poet’

*A celebration of Audre Lorde – poet, essayist, and radically powerful voice.*

### BOOKS

**Indira Mallik**

*Books Writer*

Speaking at a conference on modern language in 1977, in a speech that would later be published as *The Transformation of Silence into Language and Action*, the poet-activist Audre Lorde reckoned with her mortality.

A few weeks prior, she said, she’d undergone a mastectomy to remove a tumour that in the end turned out to be benign, but in the three weeks it had taken for the results to come back, the “final silence” of death had seemed all too imminent.

“I was going to die, if not sooner than later, whether or not I had ever spoken” she remarked, “my silences had not protected me. Your silence will not protect you. But for every real word spoken, for every attempt I had ever made to speak those truths for which I am still seeking, I had made contact with other women while we examined the words to fit a world in which we all believed, bridging our differences. And it was the concern and caring of all those women which gave me strength and enabled me to scrutinize the essentials of my living.”

This confessional call-to-arms - at once bold and vulnerable - was the reiteration of a lifetime’s philosophy for Lorde, whose essays and poetry had established her as a vital and necessary voice at the forefront of the intersectional feminist movement.

Thrillingly, Lorde’s writing demands nothing less than utter revolution:

critiquing not only the patriarchal, heteronormative society that oppresses women, but also examining what she regarded to be the false principles within feminism. Rather than rejecting the terms and philosophies that are often weaponized against women, she reclaims them.

In her essay *Uses of*

**“Thrillingly, Lorde’s writing demands nothing less than utter revolution”**

*the Erotic*, Lorde untangles eroticism from pornography, which “emphasises sensation without feeling”, and elevates it to the spiritual. “Recognising the power of the erotic...can give us the energy to pursue genuine change” writes Lorde, concluding that such a thing would never be possible “within the context of male models of power”.

Her 1979 essay *The Master’s Tools Will Never Dismantle the Master’s House* is a further exploration of the idea that a complete overhaul is necessary. Written to express her disappointment at the lack of inclusion of black and lesbian women in feminist conferences, in the essay she forcefully decries white feminism - accusing it of being too academic, too wilfully ignorant of poor women, of women of colour and their issues, too reliant on the power structures of the patriarchy to defend their exclusions.

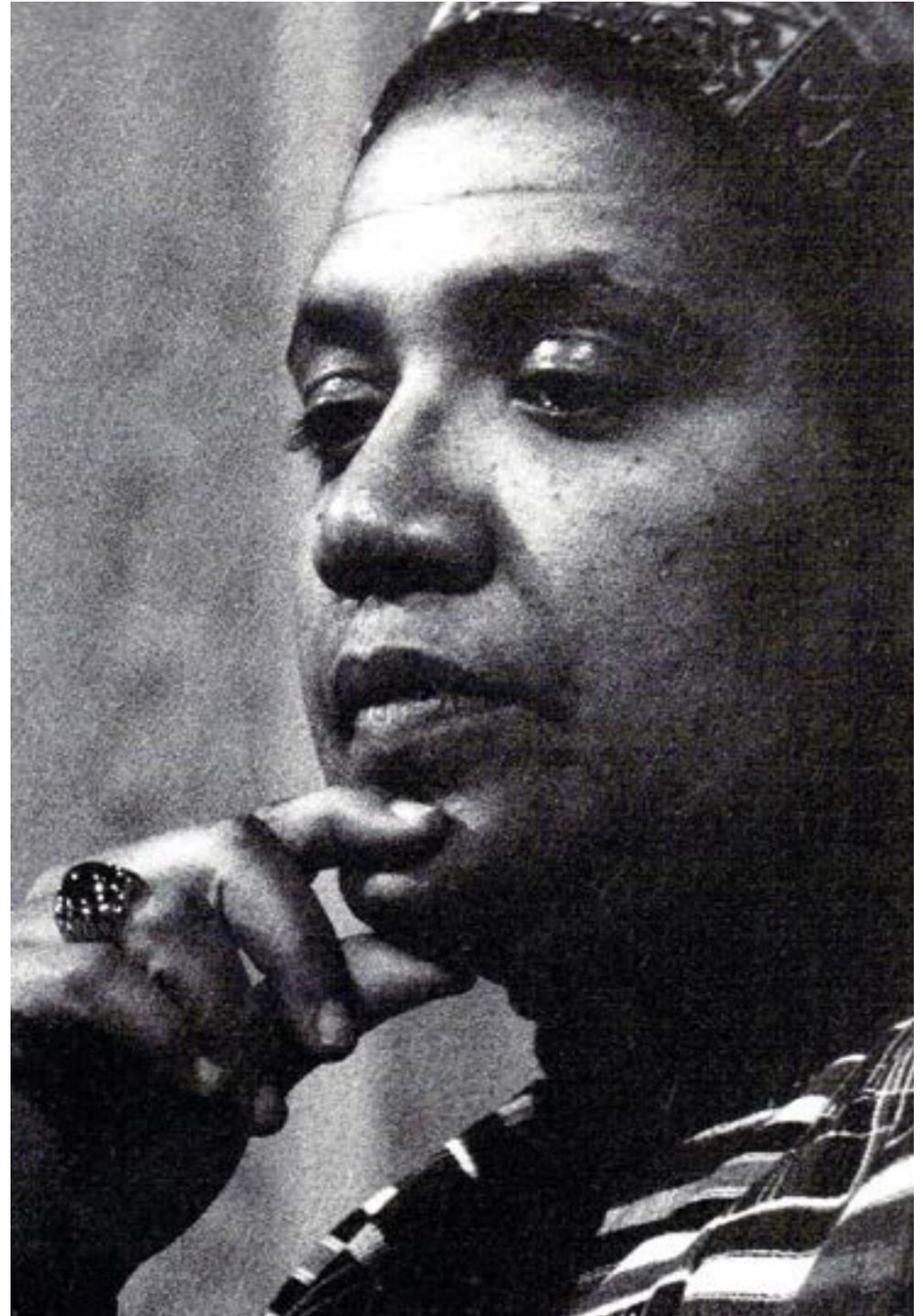
She returns to the issue in *Age, Race, Class and Sex* - “by and large within the women’s movement there is a pretense to a homogeneity of experience covered by the word ‘sisterhood’ that does not in fact exist”. Throughout her work, Lorde calls on the reader to reject a system that disregards divergent experiences, reject “cosmetic changes” and build one that celebrates differences: “in our world” she implores, “divide and conquer must become define and empower”.

The immediacy of Lorde’s call for greater inclusion must in part arise from her own life: for her, the political was intensely personal. As a “black lesbian feminist socialist mother of two, including one boy, and a member of an interracial couple” Lorde cannot help but be inclusive, it keeps her “honest” - the complexities of which she brilliantly describes in an essay exploring the challenges of raising a boy as a lesbian mother in *Man Child*.

In *The Silence Will*

**“Lorde’s poetry is angry yet what draws the reader back is an undercurrent of hope”**

*Not Protect You*, Silver Press’ new edition of Lorde’s work, her essays are brought together with some her poems. Somewhere in the middle of the slim pink



‘Black, lesbian, mother, warrior, poet’ Audre Lorde // Wikimedia

paperback is a transcript of a conversation with the poet Adrienne Rich. This sweeping interview, rich with detail, we learn that prose never came naturally to Lorde, who expressed herself from an early age through poetry. Indeed her poems, packed with punchy imagery are a potent distillation - reducing down pages of prose into a short few lines.

*Good Mirrors Are*

*Not Cheap* rehashes *The Master’s Tools*: “It is a waste of time hating a mirror/or its reflection/ instead of stopping the hand that makes glass with distortions”.

Sometimes filled with brutal imagery, Lorde’s poetry is unflinchingly angry and fearless: she is not one to sugarcoat or mince words, yet what draws the reader back is the undercurrent of belief in a better future,

a skein of light that is also threaded through her prose. Hurling rocks, barbed wire, and dogshit dumped on the porch may litter *Outlines*, a poem about Lorde building a life with Frances Clayton, a white woman, but it ends with love and hope: “we have chosen each other/and the edge of each other’s battles/is the same/if we win/there is no telling”.

# GAMES

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## London Anime & Gaming Con 2018

*Games Editor Saad Ahmed gives their two cents on the recent Anime and Gaming Con and of conventions in general.*

### GAMES

**Saad Ahmed**  
*Games Editor*

Conventions, be it Comic Con or last weekend's Anime and Gaming Con, are usually the kind of thing where only a small group of people really know what they're all about. Most people either don't know they exist or are hesitant to go out of fear or uncertainty about what it actually is and what it might involve. From my brief time at this weekend's convention, I'll give you my quick rundown of the event and comment a bit about conventions in general.

The convention was held at a small complex owned by London Metropolitan University, taking place over two main floors. The lower floor was more dimly lit à la a nightclub with a small stage, a bar and a few stalls with games and handicraft products on sale. There were also

some back rooms where people could go and chill out. One such room had a collection of retro gaming rigs set up with consoles such as the Nintendo 64, the SEGA Genesis and the PlayStation 2 (feel old yet?).

The upper room was larger, with a bigger stage, more seats and a larger variety of stalls with an even larger collection of colourful merchandise on sale. I'd honestly say it's worth going, just to buy

**“The explosion of geek culture is a bit jarring at first, but it's something you warm up to”**

some cool artwork, shirts and trinkets. However, we're all on a student budget here so make sure you watch your wallet when you venture forth.

Compared to MCMC



So much merch, but only so few student loans! // Saad Ahmed

Comic Con held in May and October, this one was smaller in scope and number of people. However, I personally thought that this worked out in its favour; it was nice to get a change of pace from a more grandeur event. For example, when the karaoke event took place, it felt like around half the attendees were present. I know the more socially awkward of you readers will freak out

at this but honestly, it made the event feel more like an intimate affair. It seemed like it was geared towards being more social and interactive with other guests, another thing which you awkward peeps may object to.

One thing that's noteworthy in any convention is the sheer amount of geekiness you're exposed to. Seeing the explosion of geek culture is a bit jarring at first, but it's something you warm up to. It's endearing to see so many people, passionate about their interests and hobbies, and generally being welcoming and non-judgemental towards each other. The quality of cosplay is also a real joy to watch; as cliché as it sounds, it's like the characters have literally jumped out of the screens into real life.

Unfortunately, I had a busy weekend and was unable to hang around for the full three day event, let alone a full day for that matter. Had I stuck around, there would have been a variety of different

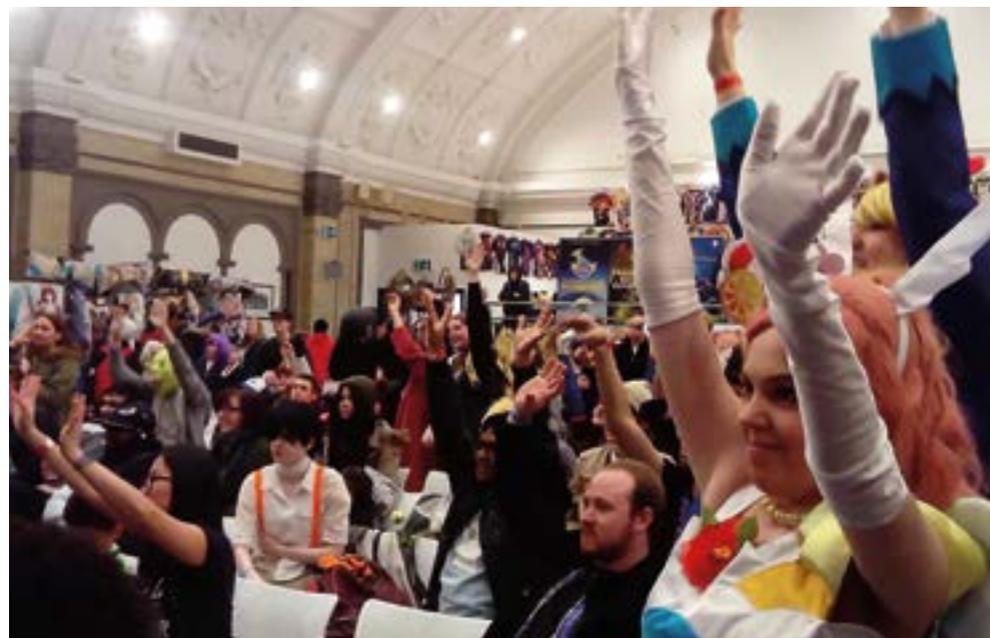
events to take part in and have some fun with. There were gaming tournaments on Saturday and Sunday over a wide selection of games like *Super Smash Brothers*, *Overwatch*, *League of Legends* and more. As an incentive to take part, there were cash prizes, although to be fair, you'd probably get

**“Rick trying to sell his portal gun to DC's Deathstroke is just amazing to watch”**

wrecked by someone who takes the game seriously. There were also Q&A sessions with artists and voice actors, talks about aspects of gaming and anime, and an assortment of different activities. These included, but were not limited to, live band performances, a big Geek Quiz and a cosplay

auction (with proceeds going to Epilepsy Action)

A lot of this might seem a bit daunting and worrying. If you decide to attend a convention, there's honestly nothing to worry about it. You don't have to take part in any of the stuff that happens. Watching from the sidelines (which I was forced to do) can be just as fun and you'll get an experience unlike any other. Rick trying to sell his portal gun to DC's Deathstroke is just amazing to watch; it is literally something you'll not see anywhere else in your life. And it's just one of the bizarrely awesome things you'll get to encounter if you attend. It'd be worth going along with a couple of friends so you don't feel too out of place. The next conventions are MCMC on the 25-27<sup>th</sup> of May and a second Anime and Gaming Con on the 6-8<sup>th</sup> of July. And no, they're definitely not paying me to say this (although if anyone reading this is willing to pay me, that'd be great!)



Why can't people in group projects be this enthusiastic? // Saad Ahmed

# TWO WEEKS TO GO

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## MUSIC

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## MGMT: transformed, transfigured, transcendental

*Little Dark Age marks the end of the band's own dark period as they plunge into synthy waters, reinventing themselves and creating some interesting new music along the way.*

MUSIC  
LITTLE DARK AGE

**Artist:** MGMT. **Label:** Columbia. **Top Tracks:** Hand It Over; Little Dark Age; Me And Michael. **Fans Of:** Metronomy; Ariel Pink; Unknown Mortal Orchestra. *44 minutes*

**Martin Flerin**  
*Music Writer*

It is fair to say that MGMT have had some trouble reconciling their own musical vision and their fans' auditory desires. But perhaps their new album, *Little Dark Age*, is proof that abstract expressionist Barnett Newmann's view - that the encounter between art and audience can be considered as a meeting between two sentient beings, where either one can be changed by the experience - can hold true for music as well. Transposing this notion onto MGMT's discography, the trajectory of their creative process and content of their output begins to make far greater sense. This exploration seems fitting for a band that has had such a turbulent relationship with its listeners.

Beginning their careers as budding musicians at Wesleyan University, New Yorkers Andrew VanWyngarden and Ben Goldwasser, known together as MGMT, started making music as a side project in college. Their first few songs, originally released on the EP *Time to Pretend* (though some would find their way onto debut album *Oracular Spectacular*) were originally meant to

be a sardonic exercise in trying to make the most commercially-sounding music possible. The only problem was, against all their expectations, the public loved it. Maybe too much for the pair's liking.

A record deal with Columbia followed, but the public adulation and countless commercial deals were more disheartening than encouraging, for people were taking their jokes seriously; the songs that were supposed to be subverting the status quo of popular music, or at least showing its problems, were actually

**“They acknowledged their dwindling listenership and decided to no longer take themselves so seriously”**

blending into it. So they turned on their own sound. In fact, they decided that they would take a detour off the highway to pop stardom with their next LP, 2010's *Congratulations*. And, well, if that was a detour, 2013's self-titled album drove the bus off a cliff.

And off the face of the earth they disappeared... A five-year gap in albums and a two-and-a-half-year gig hiatus might have begun to look terminal, but midway through 2017 they started teasing material for a new album, and it became evident that

the break had been good for them. The gigs were exciting, the tide was beginning to turn, people were warming to their new and exciting sound.

Over the course of their previous albums, the mood deteriorated as quickly as the quality of their sound, resulting in jolly tunes such as 'I love you too, death' and 'Your life is a lie'. But now, their art seems to have finally benefited from the increasingly negative public push back. They acknowledged their dwindling listenership and decided to no longer take themselves so seriously. They enlisted the help of Ariel Pink and Conan Moccasin (the man who Mac Demarco considers the best guitar player he knows) for their new record, whose sound is a welcome 180 degree turn from previous efforts.

Kicking off the album is the absurd 'She Works Out Too Much', a track with enough groove and reverb to be at home in an 80s aerobics video - spandex and all. But despite its goofy lyrics and double-entendres (working out as a partner juxtaposed with physically working out), the message is pertinent to society. It tells the story of a technological generation that has become too fickle and superficial, but it doesn't do it in a headache-inducing way (anyone remember Arcade Fire's 'Love is hard / Sex is easy' line? Yeah, me neither), nicely setting the tone for the album. The entire thing excellently toes the line between the absurd and meaningful, and by the end, the common thread throughout the album is one that MGMT themselves have



MGMT stands for 'My Gaudy Münch Take' // Columbia

admitted to having lost for a while after their debut; they completely forgot that making music, like life, was also about having fun. And so the lyrics from 'When you die': "And words won't do anything / It's permanently night / And I won't feel anything / We'll all be laughing with you when you die" ring especially true when considering their creative journey. It

**“The entire thing excellently toes the line between the absurd and meaningful”**

is simultaneously creepy, funny and moving.

'Me and Michael', a great song as well as the centre of hilarious and unexpected colab with Filipino band True Faith (just check out the music video), is another highlight of the album. It's about friendship and sticking together in the face of adversity. Sadly, the two songs that follow are potentially the weakest on the record. 'TSLAMP' (Time Spent Looking At My Phone), is another critique of the tech addiction facing modern society, but besides one great lyric ("Find me when the lights go down / Signing in, signing out / Gods descend to take me home / Find me staring at my phone"), it is slightly dull, repetitive, lacking in any hooks and generally slows down the album.

'James' is another stray bullet, sounding like regurgitated Ariel Pink - except far worse. After these, the vibe picks up again, with instrumental 'Days that got away' acting as a poignant segue into the final three songs, which are capped off with the delicious, Tame Impala-esque 'Hand It Over'.

The best song on the album, though, is the second title track. It features a handful of powerful lines; a wavy, gothic, synth backdrop; a drum that packs a punch; and vocal effects which only serve to enhance the feeling of dread conjured by the lyrics. The song, just like the album as a whole, shows that MGMT have learned much from their sabbatical, and the rapidly sold-out London show tells us that listeners took notice.

# MUSIC

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## Roxy Music's *For Your Pleasure*

*There are tragically few art-rock bands with a dedicated oboist.*

### MUSIC

**Adrian LaMoury**

*Music Editor*

In a time when Elton John dominated radio play and sales, crowds flocked to catch a glimpse of David Bowie's on-stage theatrics, and the bulk of underground intelligentsia attributed artistic merit to Pink Floyd, it was pretty hard to break into the British music scene. No surprise then, that Roxy Music are often overlooked when ruminating on the golden era of glam.

Formed in 1970, these art college kids were always a bit different. Not content to deliver the big rock riffs of Led Zeppelin and Queen, they strove to establish a new sound, and a fresh approach to making music. Frontman

and founder Bryan Ferry was an old-school crooner: a silver-tongued, tuxedo adorning Prince Charming with an eye for all things avant-garde. Joined by a gaggle of impeccable, yet somehow unlikely, musicians, their line-up was beyond solid.

Setting them apart, however, was none other than the man with the Midas Touch, one Brian Eno, making his first steps in the world of music. Often seen sporting heavy eye makeup, long hair and a collection of feather boas, Eno could play no instruments. He'd had no formal training and no songwriting experience. What he did have, however, was a brilliant mind. A mind that saw the world through a kaleidoscopic lens, distorting all that was surely known and finding clarity in chaos, something that has paid

dividends throughout his long and illustrious career. That and a Revox reel-to-reel tape machine.

the band to veer towards a more straightforward soft-rock sound, his experimentalist glaze



Too many joy-rides in Daddy's Jaguar // Island

Though creative differences with Ferry would eventually lead to Eno's departure, leaving

can be found shimmering over their first two albums, 1972's *Roxy Music* and 1973's *For*

*Your Pleasure*. The latter is generally considered to be their magnum opus, and features some of their most daring and memorable compositions.

Frenetically swerving between high-octane stompers ('Do The Strand', 'Editions Of You', 'Grey Lagoons'), smooth groovers ('Beauty Queen', 'Bogus Man'), and chilling soundscapes ('Strictly Confidential', 'For Your Pleasure'), Roxy display the full arsenal of their auditory assault. The pivotal track is 'In Every Dream Home A Heartache'. Backed with a sinister rock organ and very little else, Ferry's fragile monologue gradually unveils a disturbed man, deeply apathetic towards modern society's materialistic obsessions. Opulent but empty, only one object evades his disdain: an inflatable doll,

bought mail order. Upon the uttering of "Inflatable doll / Lover ungrateful / I blew up your body / But you blew my mind", Phil Manzanera's muscular guitar kicks in with a spiralling solo, backed with a thunderstorm of drums and Eno's signature phase-shifting tape effects.

As the eerie reverberations of the album's progressive closer fade out and the heavy clouds begin to wither, it's clear that this is an extraordinary album by a band way ahead of their time. Amid the frequent pace changes and ominous undercurrents, it's far from an easy listen, though one that inspired a host of musicians. Inexplicable and at times impenetrable, the album ends with a fitting vocal contribution from Judi Dench: "You don't ask / You don't ask why"

## DAMN. Kung Fu Kenny!

*Fans were treated to a musical and visual masterpiece as Kendrick brought the DAMN. experience to London.*

### MUSIC

**Andrew Djaba**

*Music Editor*

I feel like I've spent the last five months as *Felix* Music Editor almost exclusively writing about Kendrick Lamar. Nonetheless, please indulge me one more time... I'll try to keep it brief. Kendrick Lamar completed the UK leg of his *DAMN.* world tour last week, performing six nights and shutting down arenas in Birmingham, Manchester, Glasgow, and London.

The show played out like a kung fu film, with a recurring theme of martial

arts running throughout and the concert beginning with a short film depicting "the damn legend of Kung Fu Kenny". The night got off to a frantic start as Kendrick kicked off his set with a literal BANG before launching into the explosive 'DNA.', complete with a ninja sharing the stage with him. This breathless start to the show set the pace for the rest of the evening as Kendrick proceeded to perform a medley of up-tempo fan favourites, including 'ELEMENT.' and 'King Kunta'. It wasn't until after performing his feature verse on ScHoolboy Q's 'Collard Greens' that Kendrick gave the



DAMN. Kendrick! // Andrew Djaba

crowd a moment to catch its breath, before taking us back with 'Swimming

Pools (Drank)' and 'Backseat Freestyle' from 2012's good kid,

m.A.A.d city. The intro to 'FEEL.' played out whilst an accompanying dance performance took place on stage as King Kendrick made his way to perform 'LUST.' and 'Money Trees' in an elevated cage in the centre of the regular standing section, amongst his adoring subjects. Kendrick standing within spitting distance of me was arguably the highlight of my evening and that moment was only matched by the a cappella rendition of 'HUMBLE.' as the concert drew to a close. There was something magical about hearing the 20,000-strong crowd echo back every line from the track and even Kendrick seemed touched, pausing

to witness the extent to which his music has impacted the culture and pervaded the mass consciousness of our generation.

This was quite simply the best concert I've attended, worth every penny of the £80 ticket price. If his masterstroke in executive producing the *Black Panther* album weren't enough proof that Kendrick is an artist at the peak of his powers, seeing him perform live proves his artistry seemingly knows no bounds. Not to sound cliché, but only one word can describe the extravaganza Kendrick put on for us: DAMN.

# FILM

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Mothers and daughters // A24

## *Lady Bird*: Love and cinema in Sacramento

*Greta Gerwig's debut turn in the director's chair reveals a phenomenal talent, in this tale exploring the bonds between parents and children.*

### FILM

#### LADY BIRD



**Dir:** Greta Gerwig. **Script:** Greta Gerwig. **Starring:** Saoirse Ronan; Laurie Metcalf; Lucas Hedges; Timothée Chalamet. 108 minutes

**Fred Fyles**  
Editor-in-Chief

Don't you think maybe they are the same thing? Love and attention?"

Christine "Lady Bird" McPherson (Saoirse Ronan) is in her last year of high school, at a catholic institution in the city of Sacramento, California. Her dream, like innumerable other teens across the states of America, is to get as far away from her surroundings as possible; a liberal arts college on the East Coast would offer her just the escape she is seeking.

Taking place across Senior Year in the early 2000s, we see Lady Bird pick up and drop boyfriends, best friends, houses, pastimes, and names, as she tries to figure out her place in the world. What remains constant, however, is her relationship with her mother Marion (Laurie

**"It can be difficult, when watching *Lady Bird*, to remember this is Gerwig's first time alone in the director's chair"**

Metcalf) – by turns sweet and confrontational, the relationship between Lady Bird and Marion

exemplifies what often occurs between parents and late adolescents, who are itching to leave the family nest.

Gerwig cut her teeth in the world of screenwriting with mumblecore films and collaborations with Noah Baumbach, such as *Mistress America* and *Frances Ha*. But while those previous films relied on a breezy, screwball-esque energy associated with their New York settings, in *Lady Bird* Gerwig has opted for a more naturalistic, relaxed tone; it's more intimate, more nuanced, and – dare I say it – more enjoyable than her previous work.

It can be difficult, when watching *Lady Bird*, to remember that this is Gerwig's first turn alone in the director's chair. Her direction is calm and assured, and you could easily be watching the work of someone at the height of their creative powers, rather than somebody just starting out on what is hopefully a

lengthy directorial career. She handles complex topics with a gentle grace and even-handedness, which belies the emotional power of the film as a whole.

One of the most impressive aspects of the film is how it deals with the city of Sacramento, where Gerwig was born and brought up. While the setting of *Lady Bird* certainly impacts on the nature of the film, Gerwig never allows the time or place to overshadow the narrative. References to the early noughties abound in the film, but always indirectly – Gerwig builds up her own image of Sacramento through small details, and the result is a sense of setting that gets deep into the viewer's bones. *Lady Bird* shows us how where we grow up never really leaves us, for better or worse, and that an appreciation for our home towns often appears after we've left to greener pastures.

What *Lady Bird*

skewers particularly well, in my opinion, is the experience of growing up as a member of the struggling American working class, and the feelings of inferiority such an upbringing generates in *Lady Bird* when she compares herself to her more well-off classmates. While Lady Bird's family are by no means living in poverty, the film bombards us with plot elements – shopping in thrift shops, socks at Christmas – that highlight both the momentous impact an East Coast college placement could have on Lady Bird's finances, and the distances her parents will go to keep the family's head above water.

It is this knowledge that makes Lady Bird's rejection of what her upbringing offers that much more impactful. Of course, she is at an age when it is normal to reject what you're offered by your parents, but what *Lady Bird* does exceptionally well is to

show us the effects such rejection can have. When Lady Bird refers to her house as being 'on the wrong side of the tracks', for example, it cuts deep to a mother who never expected to be raising two kids there.

*Lady Bird* could easily be just another coming-of-age drama, in which the protagonist leaves behind her small-town upbringing for bright lights in the city; but thanks to Gerwig's brilliant direction and well-crafted script, *Lady Bird* manages to be much more than that. Gerwig has managed to find the beauty in Sacramento, in the agony of adolescence, in teenage heartbreak, in disappointing sex, in the ingratitude of children, in letting your parents down, in trying to be the best you can be, even if it's not good enough for others. It's film-making that requires a lot of attention. And, yes – it feels like love.

# FILM

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## Guillermo del Toro shows us the shape of his dreams in this fantasy romance

*In The Shape of Water, Guillermo del Toro has created a complete fantasy world, in which the viewer is able to completely immerse themselves.*

### FILM

#### THE SHAPE OF WATER



**Dir:** Guillermo del Toro.  
**Script:** Guillermo del Toro, Vanessa Taylor. **Starring:** Sally Hawkins; Michael Shannon; Richard Jenkins; Doug Jones. *123 minutes*

**Fred Fyles**  
*Editor-in-Chief*

**D**isobedience is one of the strongest signals of your conscience of what is right and what is wrong” said Guillermo del Toro when promoting his masterpiece *Pan’s Labyrinth*, “when you disobey in an intelligent way, you disobey in a natural way, it turns out to be more beneficial than blind obedience. Blind obedience castrates, negates, hides, and destroys what makes us human.”

More than a decade on from the film that made his name in the world of cinema, he returns to the same themes – those of choice, duality, and the battle between natural chaos and artificial order – in *The Shape of Water*, a beautiful, twisted fairy-tale for our own age.

As usual with his films, del Toro asks us to suspend right from the off any sense of disbelief that may cling to us as we settle in our seats. Starting with a sequence in which the camera floats weightless through an apartment building flooded with water, *The Shape of Water* is a sensory experience

like no other; throughout the two-hour runtime, del Toro bombards us with images and scenes of such beauty and intensity that to leave the cinema seems like an affront, since it necessitates breaking the delicate spell the film weaves.

As with *Pan’s Labyrinth*, set in Franco’s Spain, *The Shape of Water* is a film shaped by a strong sense of time and place: in this film the location is Baltimore, and the year is 1962. The Cold War is at its full height, racial discrimination is rife, and a mute woman called Eliza (Sally Hawkins) works as a cleaner at a top secret government facility. Her regular order is one day disrupted, when a new acquisition is brought into the laboratory by a glowering army colonel called Strickland (Michael Shannon) – it’s an amphibious humanoid, obtained from South America, where it was worshiped as a god, and played with beautiful physicality by regular del Toro collaborator Doug Jones.

From the off, Eliza is captivated with the creature; she begins a silent courtship, teaching him sign language and introducing him to the music of Benny Goodman in a series of wonderfully-crafted scenes. But, of course, this cannot last. With hopes the creature could give them the edge needed to succeed in the Space Race, the government orders his vivisection, and Eliza is forced to break him out – with the help of her closeted neighbour Giles (Richard



Michael Stuhlbarg, Sally Hawkins, and Doug Jones in *The Shape of Water* // Fox Searchlight

Jenkins), Soviet spy Dr. Hoffstetler (Michael Stuhlbarg), and African-American co-worker Zelda (Octavia Spencer).

**“As in his previous films, any notion of whimsy is undercut by an ever-present sense of violence”**

As in del Toro’s previous films, any notion of fairy-tale whimsy is undercut by an ever-present threat of violence, as well as a raw sexuality that frequently interspers-

es the action. Del Toro is a director who knows that desire and lust are but two aspects of the same object, and this allows him to keep his characters from floating away on a sense of whimsy.

While there is ample acting talent in the supporting cast – Jenkins is particularly excellent in his role, all simmering anxiety and concealed tensions – the emotional centre of the film is Hawkins, whose performance as Eliza captivates. Unable to speak, she conveys her thoughts and feelings with subtle changes to facial expressions and body language – a hard-won achievement that she makes look effortless. Her Eliza manages to be both free-floating and grounded, going from scenes where she joyfully dances around

the amphibian’s tank, to confronting Giles with sign language so pointed it reveals her immense rage with perfect ease.

*The Shape of Water* is, ultimately, a film in thrall to the power of cinema, and the delicate but potent beauty it can create. Del Toro is clearly a director who is so obviously in love, both with his own creations, and those that came before him; *The Shape of Water* is indebted to both classic musical numbers of movies gone by and schlocky Universal Monsters from the B-movie era.

It’s not a perfect film, by any means: some of the plot elements don’t quite gel together, with some side-elements seeming superfluous; and the links del Toro draws between sexuality, race, and disability can seem

ham-fisted. But ultimately, *The Shape of Water* is best enjoyed with the sense of weightlessness that comes through suspension of over-analysis; it’s a hand-crafted fantasy-world, build by a director who is at the height of his powers, both in terms of creativity and scale. To interrogate it too deeply would destroy its magic; it would be a shame.

“Seems like I was both both too early or too late for my life,” reflects Giles at one point – an illustrator living in a time of photography; a gay man existing during a period of hate. Luckily, for us, this film has arrived at the precise right moment: *The Shape of Water* is del Toro’s world, and you should take the time to live in it, even for a little while.

# FILM

film.felix@imperial.ac.uk

## Baftas 2018: A predictable awards ceremony that leaves the road to the Oscars clear

*This year's Baftas cemented what we already knew, in a disappointing year.*

### FILM

**Fred Fyles**

*Editor-in-Chief*

Even for those at Imperial who aren't particularly interested in film, the presence of the 2018 Baftas was difficult to miss. For one thing, the evening was hosted at the Royal Albert Hall, allowing some students and staff the chance to engage in some star-spotting (insert pun about Blackett astro group here), but annoying countless others by blocking off a large portion of Prince Consort Road, adding valuable seconds to coffee-run times.

But for those of us who are interested in film, the Baftas proved an annoyance in a slightly different way: it was, quite simply, monumentally dull. Widely acknowledged as the last hurdle to pass on the long road to the Academy Awards, which are given out next

weekend, the Baftas provide films, directors, actors, and screenwriters one last chance at success. While in the vast majority of years the Oscar front-runners are set in stone by this point, the Baftas have been known to provide some upset in recent years – for example, last year, when Dev Patel pipped Mahershala Ali to the Bafta for Best Supporting

**“This year's Baftas cement the award season as one of the most predictable in recent years”**

Actor.

What happened this year, however, cements this award season as one of the most predictable in recent years. This is par-

ticularly true of the acting categories – Frances McDormand, Gary Oldman, Allison Janney, and Sam Rockwell have won their respective categories in the Critics' Choice Awards, Screen Actors Guild awards, Golden Globes, and Baftas, meaning their success at the Academy Awards is all but assured.

Similarly Best Director seems to be a lock for Guillermo del Toro, who was recognised for his fantasy *The Shape of Water* at the Baftas, and Martin McDonagh's *Three Billboards Outside Ebbing, Missouri* is set to win Best Original Screenplay. *Call Me by Your Name*, one of the best films of the past year, will have to settle for Best Adapted Screenplay at the Oscars – given James Ivory's Bafta win this week, the prediction seems assured, but it's a disappointing haul.

The only major category that seems to provide the possibility of upset is Best Film, and even then it's only being



Three Oscars outside Ebbing, Missouri // Fox Searchlight

contested between del Toro's *The Shape of Water* and McDonagh's *Three Billboards*. While the fact the Academy has moved away from awarding Best Director and Best Film to the same work means it could be *Three Billboards*'s year, the growing backlash to how McDonagh has taken a sledgehammer to the tricky subject of police brutality and institutional racism means *The Shape*

*of Water* could take it.

Nevertheless, it's sad that works like *Call Me by Your Name*, *Phantom Thread*, and *Lady Bird* will likely fall by the wayside.

The Baftas did provide us with one joyous award: Park Chan-Wook's exceptional film *The Handmaiden* took home Best Film Not in the English Language. While *The Handmaiden* was locked

out of the Oscar race – South Korea didn't even choose it as their entry – Park will have to console himself with winning last year's *Felix* Film awards.

All we can hope for now is the wrong name to be read out of the envelopes at the ceremony on the March 4<sup>th</sup>, although I hear they haven't invited Faye Dunaway back...

# PHOENIX

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# FILM

film.felix@imperial.ac.uk

## *Black Panther*: Ryan Coogler breaks the mould of a superhero film

*Arriving in the UK with a wave of hype, will Black Panther live up to expectations? Well the newest addition to the Marvel Cinematic Universe has this writer ready to switch passports.*

### FILM

#### BLACK PANTHER



**Dir:** Ryan Coogler. **Script:** Ryan Coogler, Joe Robert Cole. **Starring:** Chadwick Boseman, Michael B. Jordan, Lupita Nyong'o, Danai Gurira. *134 minutes*

#### Chimdi Igwe

*Film Writer*

Arguably the most anticipated film of 2018 arrived last week. *Black Panther*, the latest addition to the Marvel Cinematic Universe canon, and directed by Ryan Coogler, was released in cinemas worldwide this February.

*Black Panther* is set in the fictional country of Wakanda, a technologically advanced nation in Sub-Saharan Africa which has separated itself from the rest of the world as a means to protect its immense resources of 'vibranium', a fictitious element which has featured many times in the Marvel mythos.

The film follows T'Challa (Chadwick Boseman), who, upon the death of his father the king, returns to take up the mantle of the Black Panther, protector of the realm. His authority and right to the throne, however, is challenged by Erik Killmonger (Michael B. Jordan), an American-born usurper who seeks to bring Wakanda out of its isolationist ways and share its technology with oppressed (read: black) people across the

globe.

A surface critique of the film is that it follows the formulaic pattern which has given Marvel films the large box office returns they so often command – action, comedy, and a dash of romance to boot (because why not). However, such a rudimentary analysis of the film fails to capture its more nuanced facets.

The film touches on interesting points regarding morality, good and evil: by removing colonialism and systemic injustices from the equation, the existence of Wakanda allows for the presence of black people on screen without the burden of a plotline which includes racial injustice or oppression. It shows a culture

### **"Black Panther shows a societal framework free from European influences"**

of people untainted and free to evolve – the vision of an Africa in which advancement is not separate from tradition or culture; a societal framework free from European influences.

Furthermore, it is arguably the women who drive the plot: from Okoye (Danai Gurira) the head of the Dora Milaje (the all-female palace guard), to Nakia (Lupita Nyong'o), covert



Don't mess with them // Marvel

Wakandan agent and T'Challa's love interest; not to mention Ramonda (Angela Bassett) the Queen Mother or Princess Shuri (Letitia Wright), arguably the most brilliant mind in the country. The emphasis of black womanhood is clear, but very noticeably without the 'strong independent black woman who don't need no man' trope – these are all women whose actions speak for them; fully realised in their humanity, something that is often only afforded to white male characters.

Of course, at its core, *Black Panther* is a superhero film. And it squarely ticks that box – the action sequences are breath-taking (I'm told even better in 3D), and the fight scenes are nothing short

of bad-ass. But the beauty of the film comes in its setting – for once in a superhero film the setting isn't New York City or a Western metropolis. It's a distinctly African country: the architecture, the fashion, the soundtrack are all deliberately tailored to portray a rich and vibrant culture.

One thing that has certainly mis-attributed to *Black Panther* is that it is the first film to feature a black superhero (see: *Blade*, *Hancock*), however that in no way diminishes its cultural importance: for many people, this film is the first opportunity to see Africa and African culture as something to be celebrated, particularly in light of comments from President Trump referring to such

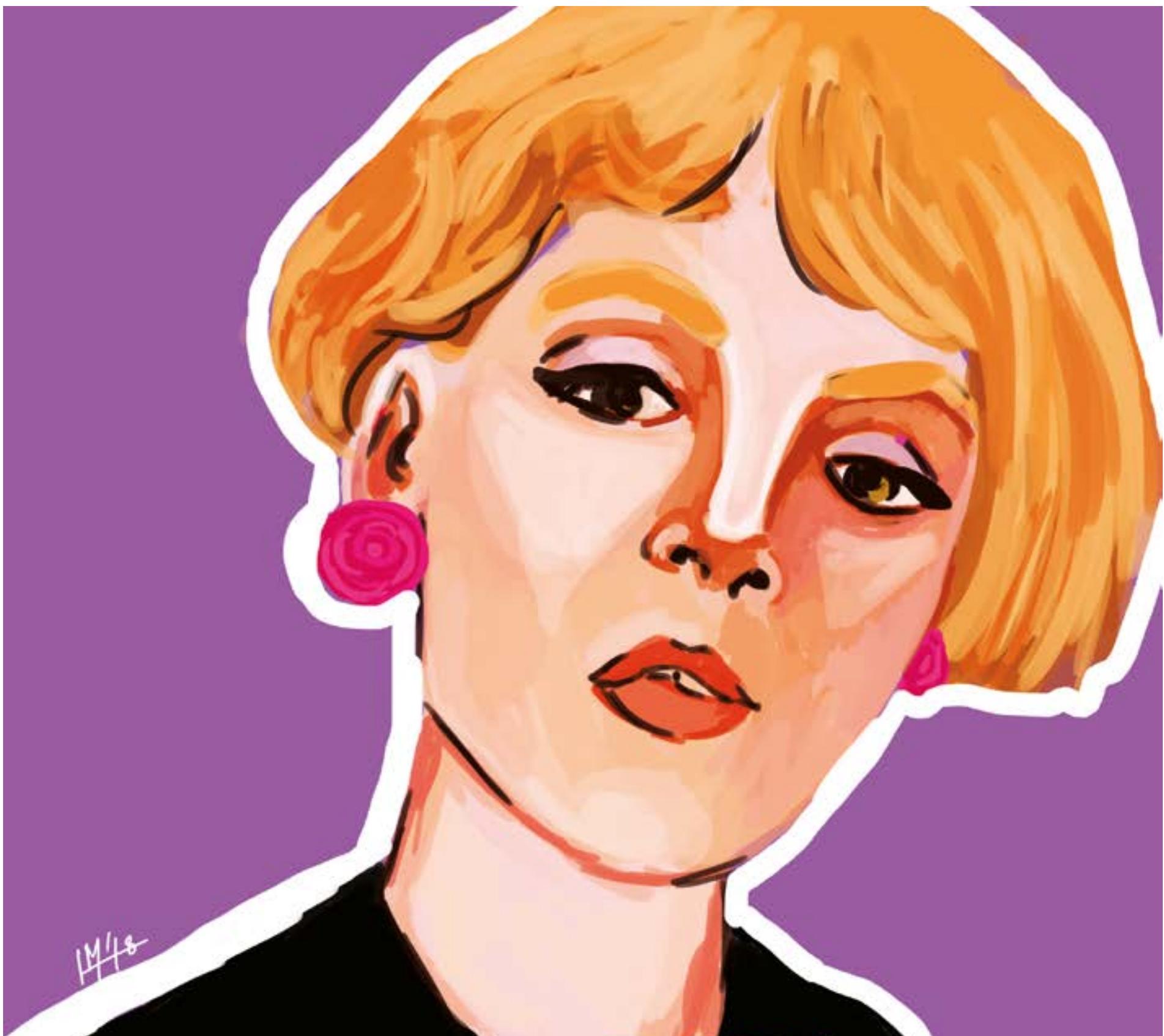
countries as "shitholes". *Black Panther* has provided an opportunity to change perceptions of Africa, as evidenced by the hundreds of people showing up to screenings in traditional African garb (myself included).

But it's also a story of a longing for something unattainable. Part of the plot's undertone is the complex relationship of African-Americans with their distant heritage; simultaneously one of yearning and of antipathy. Through this, the 'good-evil' narrative so native to the superhero genre is subverted in the conflict between T'Challa and Killmonger – at times, it is difficult to side with either.

If this is not convincing, its performance at the

box office so far speaks for itself: in the four-day period since opening it earned \$427 million worldwide, surpassing the returns from Justice League's entire run in theatres. If nothing, this is proof that black stories do in fact, sell – something which Hollywood will do well to remember.

The real triumph of *Black Panther* is its success in highlighting that black culture is not in any way monolithic. In a universe in which Norse gods, alien empires, and primordial mystic beings are freely explored, it is a refreshing reminder of the wealth of story-telling that can be gleaned from the vast repository of existing cultures here on Earth.



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SPEAK OUT**  
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**fill in the Felix survey today**  
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# LIBERATION

icu-mentalhealth@imperial.ac.uk

## It's time to take five: Under Pressure is here!

*Imperial can be like a pressure cooker. It's time to take a break, and learn how to cope with the stress.*

### LIBERATION

#### Ariana Sadr-Hashemia

*Mental Health Liberation Officer*

Coming up on March 1<sup>st</sup> is University Mental Health Day; dedicated to promoting awareness for student wellbeing across the country. Without a doubt, studying at Imperial is incredibly stressful, which can take a serious toll on a student's wellbeing; there are a lot of deadlines, revision, and exams throughout the year; and, at some point, everyone has felt a bit out of their depth. That's why over the next week the Under Pressure campaign is taking over the campuses to give students an opportunity to have fun and learn strategies to cope with stress.

During the week, there will be a multitude of stress-busting events for you to take part in. At South Kensington, there will be:

- Several meditation sessions through the week, with a session Monday 13:05-13:35 focusing on Christian traditions, a session Tuesday 12:05-12:50 focusing on using mindfulness with meditation and a session Friday 13:00-13:50 focusing on Buddhist traditions (all meditation sessions will take place in the Chaplaincy Multi-Faith Centre, 10 Prince's Gardens).

- Free massages in the SAF Foyer on Tuesday 11:00-13:30 – slots for



Take your stress out with a stress ball... // Wikimedia

that went very quickly last year so get in early!

- Relaxation Arts and Crafts activities and smoothie making in Metric and Beit Quad on Friday from 11:30-13:00. Come along to have a free smoothie, give mindful colouring a go, and make your own stress ball!

There will also be activities on Charing

**“Under Pressure gives you an opportunity to learn strategies to cope with stress”**

Cross Campus, with board games and arts and crafts running in the Reynolds

Bar on Monday 11:00-15:30 and free massages running in the Reynolds Bar on Tuesday 14:30-17:00.

The highlight of the week, however, will be the University Mental Health Day celebrations on Thursday; from 11:00-15:30 there will be a fair-ground on Queen's Lawn! There will be plenty of games and fun to enjoy so take a break out of your day to check out the activities on offer.

A list of all activities and times can be found on the Union Website, so check it out if you are unsure what's going on. Other resources are also available there, such as stress busting and revision tips, a weekly meal plan template, and a list of resources that give help and advice.

These activities are not the only thing that's happening as part of Under Pressure! The Union Shop

will be selling fidget cubes at a reduced cost of £3.95, which are a great tool for anyone's pencil case during exam season. Each face of the cube contains a different stimulus with a variety of textures, some noisy and some silent, to provide easy and discrete anxiety relief anywhere from lectures to public transport. Stress balls are designed for people to release tension when stressed, however this is not always how people react to stress! If you instead fidget when stressed, especially if you bite your nails, twist your hair, click pens or tap your fingers on surfaces, I would recommend giving a fidget cube a go.

Overall, this week is here to help every student relax and equip themselves for the exam season ahead, so make the most of it!

## Run for a liberation position!

### LIBERATION

#### Ariana Sadr-Hashemia

*Mental Health Liberation Officer*



This year, liberation has really taken off as a priority for Imperial College Union. Campus has seen awareness-raising events and celebrations including Black History Month, Disability History Month, Interfaith week, and the ongoing LGBT History Month (as shown by the currently-rainbow-hued Queen's Tower).

Campaigns on everything from gender neutral bathrooms to divestment have been plastered across Felix, dominated meetings, and sparked conversations on what can be done to improve equality and student wellbeing on campus. This is a fantastic first step to giving liberation work on campus the respect it deserves, but it cannot end here; that's why we need keen students to run for the Liberation and Community Officer positions in this year's upcoming elections.

All the Liberation and Community Officer positions have similar responsibilities: representing their liberation group in high-level Union meetings, supporting student campaigns and leading lobbying and policy change within the Union and wider Imperial community. The roles open for election are:

- Black & Minority Ethnic Officer
- Disabilities Officer
- Ethics & Environment Officer
- Gender Equality Officer
- Interfaith Officer
- International Officer
- LGBT+ Officer
- Mental Health Officer

Nominations close midnight on Sunday, so if you're keen to help move liberation work forward nominate yourself now!

# FOOD

food.felix@imperial.ac.uk



Nosteagia offer bubble waffles in Shoreditch // Nosteagia

## Worth the hype: Bubble waffles

Food writer **Bláithín Dockery** heads to Nosteagia in Shoreditch to see whether bubble waffles are an upgraded version of ice cream or just a pointless online-fad.

### FOOD

#### Bláithín Dockery

Food Writer

**B**ubble waffles, also known as egg waffles, have recently risen from relative obscurity to become the next online sensation. An import from Hong Kong, egg waffles originated as a street snack in the 1950s and are made with a sweet egg-rich batter cooked on a special frying pan with small round cells.

### “Plenty of photogenic delicious toppings”

Although traditionally eaten plain, bubble waffles have been inspired by the

traditional ice cream cone to become the next hip dessert. By curling the bubble waffle and placing it in a cardboard holder, a good-sized scoop of ice cream and plenty of photogenic delicious toppings can neatly fit. As well as impressing passers-by, creating beautiful food is essential to stimulate a buzz online and attract hungry customers, with phones poised for their next snap.

Having been bombarded by pictures of this upgraded ice cream, I decided I ought to try a bubble waffle and see if it tasted as good as it looked.

#### First Impressions

As there are a number of outlets selling bubble waffles it was relatively easy to source a location for my taste-test, so I decided on venturing to foodies’ paradise, Boxpark in Shoreditch. Located in “Unit 58” was

Nosteagia, a self-professed bubble waffle specialist, featured in Secret London. Naturally, as Unit 58 is essentially just a booth, there is not much to remark about the actual venue, but the menu board above the counter did impress me with its range of flavours (for both the waffle and ice cream) and exciting toppings.

#### The Food

After spending a good few minutes debating which flavours and toppings to pick, I decided to stick with a relatively simple combination: original bubble waffle, matcha ice cream, blueberries, and Nutella.

As the waffle is made on order it was really interesting to see the batter being poured into the round cells on the special frying pan. My bubble waffle was assembled carefully, with blueberries being delicately

arranged and Nutella artistically drizzled. It certainly looked appetising! However, in reality the dessert itself is not particularly practical, and I began to worry how I was actually going to eat it. Thankfully a spoon was provided to attack the rather oversized dessert, and I eagerly dipped into the ice cream and its toppings.

### “I braced myself and took a rather awkward bite”

The matcha ice cream had a nice soft subtle flavour which was complemented by the sharp juicy blueberries and the rich chocolately Nutella. But really the ice cream was not what I had come for, so I braced myself

and took a rather awkward bite of the bubble waffle. The outside of the waffle had a crunchy sweetness while the inside was light and fluffy, but disappointingly the waffle did not have that much flavour

overall. When I finally managed to combine the waffle with the ice cream it was rather pleasant and refreshing as it was not too sweet. Nevertheless, it definitely looked better than it tasted.

#### Worth the hype?

No. Bubble waffles are an online sensation due to their photogenic arrangements and endless topping combinations. However, in reality it is a rather awkward dessert with nothing particularly special (at least flavour-wise) about it.

#### Price

Bubble waffle, ice cream, 2 toppings: £5.50

#### Best part

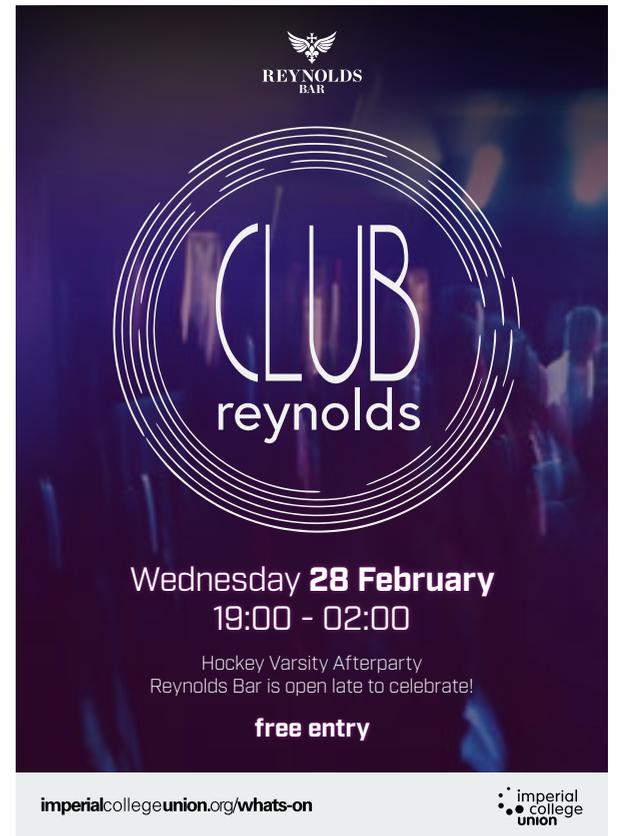
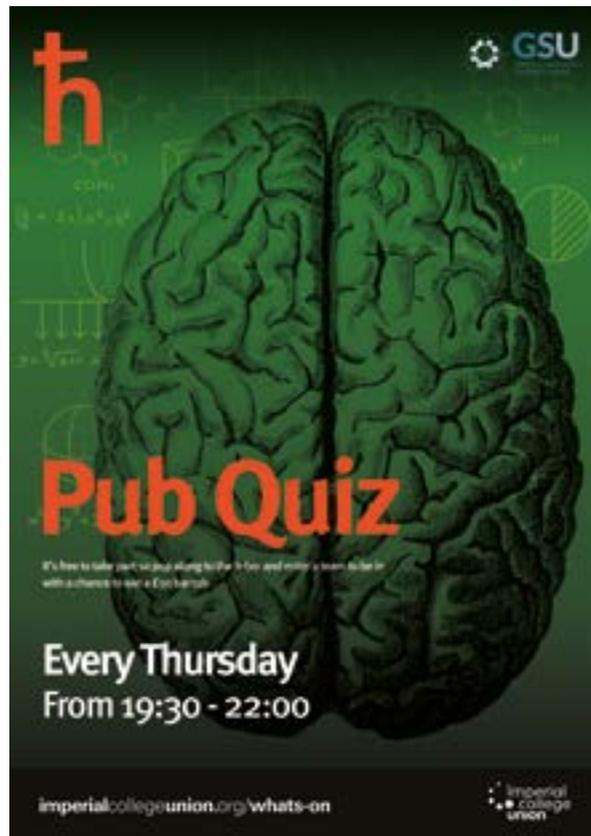
How pretty it looked

#### Worst part

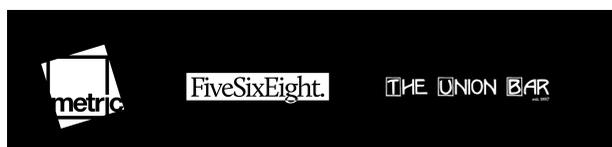
Awkwardly trying to eat it

# Your Union events

Friday 23 February



## Coming up in our bars



**Super Quiz**  
Every Tuesday  
20:00-22:00

**Cocktail Night**  
Every Tuesday  
18:00-23:00

**CSP Wednesday**  
Every Wednesday  
19:00-01:00

**IPOP**  
Friday 2 March  
20:00-02:00

**Find us on Facebook!**  
[fb.com/beitbars](https://www.facebook.com/beitbars)



**Cocktail Club**  
Every Tuesday  
19:30-23:00

**Pub Quiz**  
Every Thursday  
19:30-23:00

**PGI Friday**  
Every Friday  
16:00-23:00

**Find us on Facebook!**  
[fb.com/hbarpub](https://www.facebook.com/hbarpub)



**Free Pool**  
Daily  
17:00-23:00

**Pub Quiz**  
Every Tuesday  
18:30-23:00

**Club Reynolds**  
Wednesday 28 February  
18:00 onwards

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[imperialcollegeunion.org/whats-on](https://www.imperialcollegeunion.org/whats-on)



# TRAVEL

travel.felix@imperial.ac.uk

## The trip must go on: moving on up in Corsica

Felix catches up with **Georgios Chatzitheoklitos** and his team who share more about their adventurous trip to Corsica, trying to tackle the toughest trail in Europe.

### TRAVEL

#### Georgios Chatzitheoklitos

Travel Writer

#### Day Six: Stage Five

A day behind our schedule due to the storm on day four, we began hiking at 6:30am just as the sun was rising. The first two hours were relentless climbing in 70mph winds that kept blowing us over. At the top, the wind was so strong that we could lean our whole body weight into it without falling over! We kept our sheltered break short, before starting the long but gentle descent to the end of stage five, arriving just after midday. It was far easier underfoot than in the previous stages, but even so it was 15km, and by the end of the stage we were split as to whether we should do a double stage to get back on schedule and escape

the 80 Belgian paratroopers that were hiking the same trail and crowding the pristine wilderness. Concluding that it was more important to finish trekking for the day than out-hike the paratroopers, Carla and Diane stayed with the boys and enjoyed a relaxing afternoon of wine, beer, and tuna pasta with our hiking friends Alexandra and Mandus. Meanwhile, Max pressed on to the next stage alone, escaping the testosterone of 80 commandos, who were singing their intimidating chants “SEX, DRUGS, GUNS, AND DANGER – THAT’S THE LIFE OF THE AIRBORNE RANGE” during the night, only to hear us reply with our RSM ones: “WE ARE MINERS!”

#### Day Seven: Stage Six

Without our leader to guide us, we opted for a more laid back 9am start for stage six, knowing it was one of the easier

stages. After a late night in the hotel bar saying goodbye to Victor and Lila (some hiking friends who were ending their GR20 experience), we were glad for a lie-in that morning – especially Harry who may have had one too many beers! One benefit of the army men taking over the camp was the boxes of free ration pack snacks they left behind for anyone to help themselves. We got a bit carried away with the concept of free food (the refuge food was very expensive – I’m talking €6 for four slices of ham expensive!) and we started the day with packs multiple kilograms heavier!

The gentle climb and descent to Lac Du Ninu presented no problems. We had a paddle in a painfully cold lake and many breaks throughout the day, thoroughly enjoying the Corsican landscape instead of having to glue our eyes to the tricky terrain at our feet. We also found River Tavignanu,



Who has the better mane? // Georgios Chatzitheoklitos

and we are convinced it has some link to Diane’s ancestors.

**“We had a paddle in a painfully cold lake, and many breaks throughout the day, thoroughly enjoying the Corsican landscape”**

The sun was still blazing in the sky upon our arrival to Refuge Manganu so we went for a swim in the river and sunbathed on the granite rocks. The paratroopers and their huge muscles were still around, so the boys tried to find an isolated spot for sunbathing to avoid any

comparisons...

#### Day Eight: Stage Seven & Eight-B

Having appointed Carla the new team leader the night before, everyone was soon to regret that decision when we were awoken by a 2.30am alarm for a 4am start up the mountain – all because a French man told us that the highest point of that day provided a view of the best sunrise in Corsica...

We were not disappointed. After two hours of relentless scrambling, we reached the summit at 6am while it was still dark, and a dim red glow was visible on the horizon. Also, joining us on our twilight climb was a dog that guided us all the way up – whenever we got lost, we could see his eyes glowing red and we knew where the right way was! We called him Max to complete the team once again. As the sun began to rise, we wriggled back into the comfort and warmth of our sleeping

bags and enjoyed the landscape before us, relishing the fact that the hard work was over and everyone back at the refuge would have only just begun to stir. It was one of the best moments of our GR20 expedition. We spent an hour taking photos and listening to Hans Zimmer’s *Inception* in our sleeping bags before emerging back into the chilly morning air to begin traversing along the arete.

There were some awkward slabs, boulders, gullies, and short scrambles to negotiate, including a very steeply inclined slab with chains underneath a boulder that practically required sliding down on our bums. At this point, Harry sped ahead down to the refuge because he was desperate for a poo, and upon arrival was disappointed that the toilets were holes in the ground to squat over. Meanwhile, Diane, Georgios, and Carla took advantage of the head start on the other hikers



Breathtaking views in Corsica // Georgios Chatzitheoklitos

# TRAVEL

travel.felix@imperial.ac.uk



Only 100 miles to go...// Georgios Chatzitheoklitos

and spent many hours sunbathing with Max the Dog and posing for photos in the morning sun.

**“Diane, Georgios, and Carla took advantage of the head start on the other hikers and spent many hours sunbathing with Max the dog”**

We arrived at Refuge de Petra Piana just before midday, had lunch, and then decided to push on to Refuge de l’Onda with Alex and Mandus who caught up with us while we were sunbathing. Although only four hours long, the second stage of the day was hard on everyone – the wind picked up and fog descended while we were climbing up to the ridge. But it was the last two

hours of descent that were the hardest – we had been walking for 13 hours and had covered thousands of metres of ascent and descent by the time we arrived so our feet were sore from the constant impact on the rock. Upon arrival, we found Max (the person as well as the dog!), and Diane thoroughly spoilt the dog with left-overs from her dinner. In fact, she became way too attached to the dog, and Carla was surprised to find her bed occupied by him when she came back from dinner in the refuge! He was swiftly kicked out and spent the night sleeping in the tent outer instead.

## Day Nine: Stage Nine-A

Having started at 4am the day before, we relaxed the start time by five hours and set off at 9am. Since Max didn’t have such a long day previously, he was off before we woke up, negotiating stage nine – the last stage of the northern part of the GR20. Much to our dismay, the dog was also nowhere to be seen, despite us treating him so well the night before! We had a few hours of steep ascent

followed by a long but mainly gradual descent. Getting up to the peak was tricky and involved some scrambling. Even in places that didn’t require scrambling, we found the steep incline very tiring after the previous double-stage. On the way down, we found a waterfall with a deep pool underneath so we took

off our boots and took the plunge – many times in Carla’s case. We then proceeded to sunbathe for an hour or so, and when Harry eventually suggested moving on, Georgios and Diane responded rather unenthusiastically as they lay back down to sunbathe! We also came across a British couple just before we left, and

Harry tried to lecture them about the Geology of Corsica – I don’t think they were quite as enthusiastic as him!

The last part of the day was nearly luxury for the GR20 – an almost paved path leading down to Vizzavona where the guidebook had promised us a pizzeria. There was indeed a pizzeria but, much to our horror, we were told their pizza oven had broken! Nevertheless, we treated ourselves to a meal in the restaurant with Alex, Mandus, and Max.

## Day Ten: Stage Ten

We were planning to leave at 9am that morning but it was 9:30am by the time Georgios and Harry had finally put their tent down. It didn’t matter though because the day’s route was easy, and we covered ground very quickly. We could already see the difference between the terrain in the south compared to the north. From one of the highest points reached that day, the Aiguilles de Bavella were visible in the distance – pointy peaks of

the penultimate day on the trail and a reminder that we were closing in on Conca. Most of the day consisted of walking through a forest, with much shallower inclines than we were used to. In fact, the terrain was so much flatter than on the previous days that we passed the time by singing musicals, ABBA, Queen, and Eminem. There was a particularly good spot on a rock overlooking a forested hilly landscape, where we took a break and Harry sang ‘The Hills are Alive’. That night was very windy and the door of the boys’ tent inverted in the wind, leaving them with little sleep.

## Further adventures

In the next article: tensions rise between the team after twelve hours of heavy rain and wet sleeping bags, the boys manage to get ready earlier than the girls, and the reason behind Diane’s heavy rucksack is revealed! So stay tuned.



The team cheering on their success // Georgios Chatzitheoklitos

# CLUBS & SOCIETIES

felix.clubsandsocieties@imperial.ac.uk

## BANGLADESHI SOCIETY – REMEMBERING OUR HISTORY

When most people think of Bangladesh, they think of “that small country next to India”. What most people don’t know is that Bangladesh is a country full of rich history and culture, despite only being 47-years-old this year. Initially it was recognised as ‘East Pakistan’ after the British rule ended, but the people of East Pakistan wanted independence. International Mother Language Day is officially held on the 21<sup>st</sup> of February. This is to recognise the 1952 language movement of Bangladesh, which involved the death of Bangladeshi University students for campaigning the right to speak Bengali. Bangladesh was founded in March 1971, after the Bangladeshi liberation war, or ‘Muktijuddho’. This saw the death of over 500,000 people, although nobody knows the exact number and Bangladesh Government figures suggest this number can

be as high as three million.

As young British Bangladeshis, this tragic past serves as a constant reminder to appreciate our heritage. In honour of this, Imperial’s very own Bangladeshi Society have held a range of events to commemorate the wars. On the week starting 19<sup>th</sup> February, we held several stalls and exhibitions to educate other students on this history. As part of these stalls, we created a banner for students to personalise with their names in their own languages. This banner was then taken to Altab Ali park, on the 21<sup>st</sup> February, where Imperial was joined by Bangladeshi societies from other universities. Everyone came together to pay respects to students who lost their lives for our language, and other fighters who fought for independence. Our final flagship event ‘Anupranto’, meaning ‘To Inspire’ was held as means to connect our extraordinary history to a future that holds a lot of potential. A range of Bengali speakers from various fields were

brought in to discuss their success and inspire students both Bangladeshi and non-Bangladeshi alike.

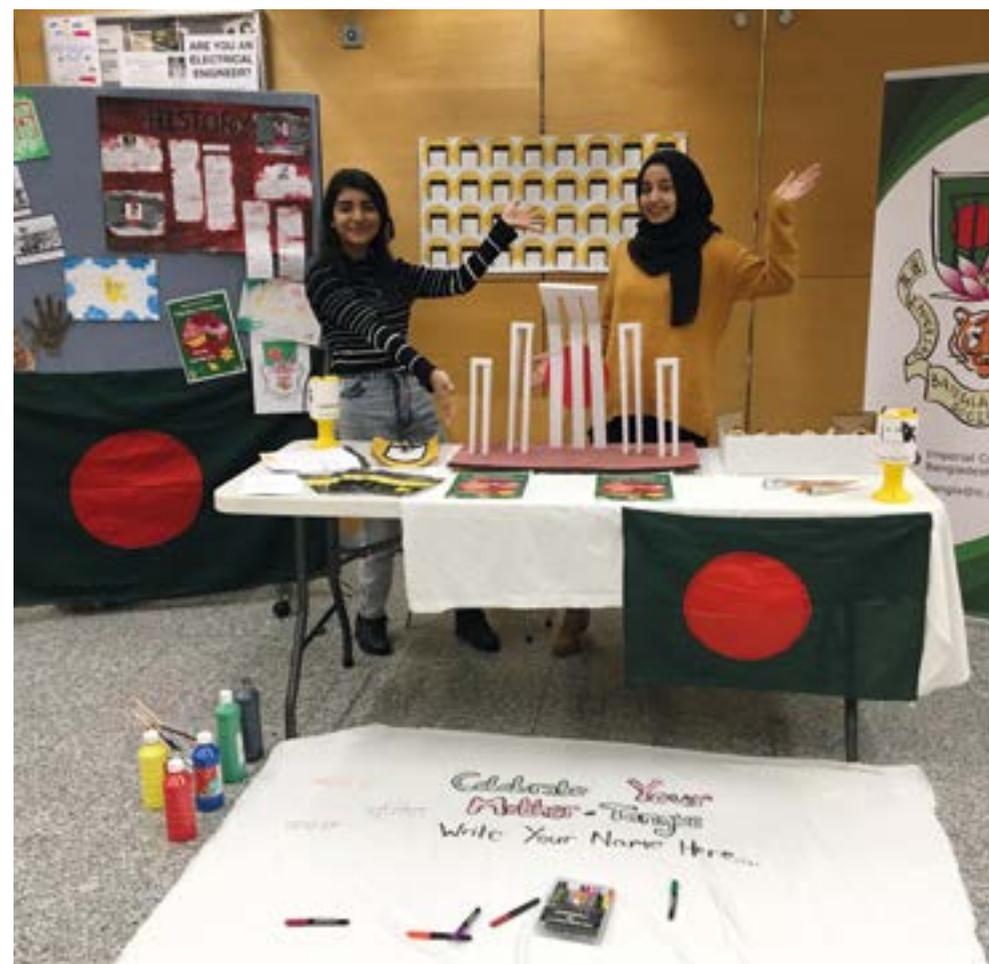
Perhaps the most rewarding aspect of all the events, is that all proceedings will be donated to JAAGO, a charity that supports educational projects in Bangladesh while also providing opportunities for UK students to volunteer in Bangladesh.

We hope this week has been a chance for you to learn about the history of Bangladesh and not just “that small country next to India”. As for those of you who missed the exhibitions, stay tuned for more BanglaSoc events where you can learn all about Bangladesh and its amazing culture.

*Simran Mahmud*

## IC RADIO – COME AND GET INVOLVED!

Are you in a band? Want to get more exposure? ICRadio has



Pictures from exhibition in SAF on Monday and Tuesday 19th and 20th February // Bangla Society

started streaming bands live from the Jazz and Rock room in the West Basement from 8pm to 9pm on Thursdays, and we’re looking for bands to come on and play! The IC sessions are a great opportunity for your band to get some exposure, as well as the practice gigs without the pressure of an audience in front of you. We don’t discriminate on genres, so whether you play metal, funk, jazz, pop, covers or original material we’ll be happy to have you on. We’ve had four shows so far and it’s great fun for both the band and for us, the presenters and sound engineers.

Want to record some songs? We can now record your band (for free!) and either give you the multi-track for you to mix and master yourself, or we can do it ourselves for a fee. This is done based on when our sound engineers have time – we are still Imperial students after all!

Not in a band? You can still get involved! We’re looking for people who

are interested in sound engineering and want to learn how to record and stream bands or even how to mix and master tracks in a post production environment. If you’ve been to the West Basement, you’ll have seen all the shiny kit we have, which too few people know how to use, sadly. That’s why we’re looking for anyone with any sound experience or who is just very eager to learn to get involved.

Just want to do a normal radio show? Go for it! While getting shows at other student radios can be difficult, at ICRadio its really easy – just ask and we’ll give you a slot. We don’t place any restrictions on what you do on air (other than no swearing), meaning you are free to do whatever you want and talk about any subject that takes your fancy. Of course, you’re still streaming live on the internet (and all shows are recorded), so be sensible!

Interested in IT? We’re currently looking for people interested in becoming our next IT

manager. Exactly how we stream Radio and schedule shows involves a decent amount of black magic which is absolutely essential to our society functioning, so if you want to get some practical experience with web pages, server maintenance, or Linux audio let us know!

ICRadio is a really fun society to get involved with, so don’t hesitate to do so. If you’re not that interested (a concept I find hard to fathom), you can always listen to us at icradio.com.

For requests to play live on the radio, email [manager@icradio.com](mailto:manager@icradio.com) with the subject ‘IC Sessions’. If you want to get involved with production or want to record some songs, email [production@icradio.com](mailto:production@icradio.com). If you want to start your own show, email [micheal.hain16@imperial.ac.uk](mailto:micheal.hain16@imperial.ac.uk) for training and then talk to [programming@icradio.com](mailto:programming@icradio.com) to get your weekly show slot. Prospective IT managers email [manager@icradio.com](mailto:manager@icradio.com).



Photo of the display board, showcasing the history of the language movement // Bangla Society

# CLUBS & SOCIETIES

felix.clubsandsocieties@imperial.ac.uk

## RAINCATCHER IMPERIAL – HELPING CHANGE LIVES AROUND THE WORLD

The sky is still dark when Christina leaves the house. She lives with her family in a small village, where more than half a year may pass without a drop of rain. During these dry spells, it is her daily job to fetch more than twenty litres of water from a creek four hours away. She wants to go to school, but cannot, because she has to walk so far to gather water. Christina is only ten.

There are many children like Christina in the rural villages of Tanzania. The climate of Tanzania has a pitiful annual rainfall, hence water scarcity is one of the greatest problems faced by the local community. This is where we enter the story.

Founded in 2002 by two Imperial students, the student-led charity Raincatcher Imperial has since completed 14 major summer projects and clocked over 12,096 hours in Tanzania. We have constructed numerous rainwater harvesting systems and

provided essential water and sanitation training all around Tabora. More than two million litres of rainwater harvesting capabilities have been built, benefiting thousands of rural villagers, essentially removing the arduous trip Christina and the other countless children have to take daily.

This year, we are moving our focus to Zeze, a rural village in the Kasulu district of Tanzania. After extensive research, boreholes have been identified to be more effective than rainwater harvesting to solve water scarcity (And no, we will *not* be changing our name to Boreholer Imperial). Therefore, in the coming summer, we will be spending up to eight weeks in Zeze constructing boreholes with the local community. Furthermore, we will set up locally-sourced, sustainable bio-sand filters and, conduct hygiene and microfinance courses for the local people. We might even hold a science camp for the local school!

Before travelling to Zeze, we are organising fundraising events and applying for sponsorships throughout the whole



All smiles // Raincatcher Imperial

year to fund our research and summer trip. Our upcoming fundraising event is the absolute highlight of the year, the annual Water Walk!

Water Walk 2018 will be held on the 3<sup>rd</sup> March, to commemorate the UN World Water Day, in advance. In order to raise

awareness of water related issues in Tanzania, we will be carrying ten litres of water each and walking ten miles across Central London. Participants will get a taste of what the daily water collection trek feels like. All our fundraising events are open to public, so feel free to get involved

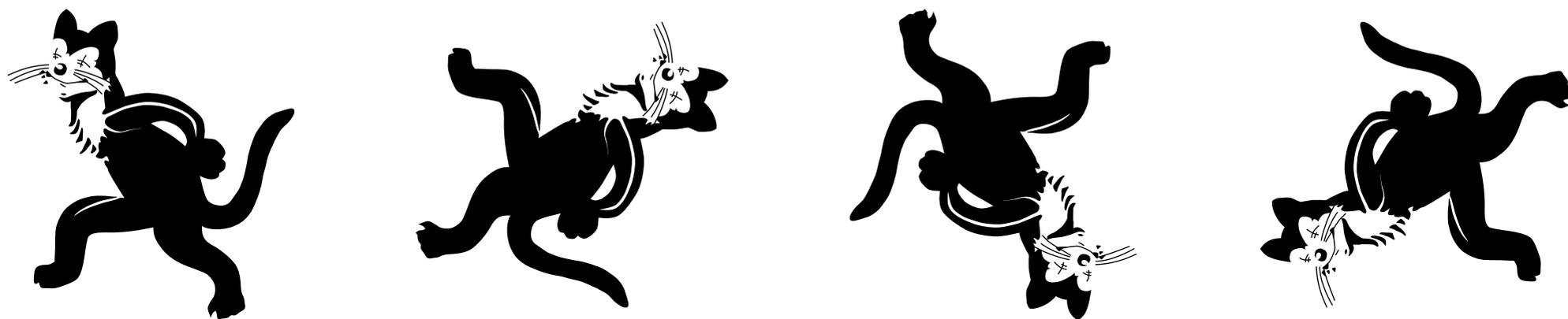
with your friends, family, neighbours, and pets!

Walk for water, volunteer for water. In order to achieve our goals, we need your help. If you are interested in what we do, you can follow us on Facebook or come down to our meetings every Tuesday. We welcome

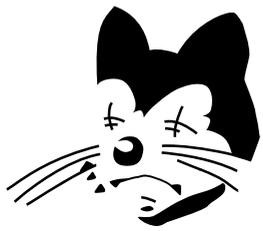
any new members! Stay tuned for more information on our summer trip to Tanzania and see you there!

*Kecheng  
Raincatcher Chief  
Executive Journalist*

## *Felix is recruiting!*



**We want you – yes, you! We're looking for writers, photographers, editors, illustrators, reporters, computer experts and grammar nerds to join our team. No experience needed – we'll teach you everything you need to know. If you're interested, send us an email on [felix@ic.ac.uk](mailto:felix@ic.ac.uk)**



# Hangman



Make it rain gurl make it rain // ICU

## Sabbatical officers to be paid in Yoyo points in remuneration shake-up

### HANGMAN

**Negafelix**  
Editor-in-Chief

*Sabbatical officers will be paid 478,000 Yoyo points next year, amid concerns over the long-term financial future of the Union.*

Imperial College Union (ICU) this week announced plans to restructure remuneration for sabbatical officers, who will now be paid in Yoyo points.

The seven sabbatical officers – Union President, four Deputy Presidents,

Felix Editor, and ICSMSU President – had previously been paid roughly £30,000 per annum, but from next year they will be receiving 478,000 Yoyo points to use at Taste Imperial outlets, amid concerns about the long-term financial future of ICU.

Patrick Gingerly, ICU's Head of Finance, Services, and Cashless Food-Based Mobile Applications, told *Hangman*: “the last couple of years have seen an explosion in the number of clubs and students, meaning the Union needs to spend more than ever before to guarantee the same great student experience. At the same time, the long-running “Bud Light Boycott”

has meant our income has taken a hit. After a long and difficult period of reflection, we decided the best solution would be to keep all of our employees, but pay them in a useless

**“Currently it is unclear whether Yoyo points can be used to pay rent or bills”**

virtual currency that can only be spent at Imperial outlets, rather than something useful, like actual cash.”

Currently, it is unclear whether Yoyo points can be used to pay rent, electricity bills, or anything that's not on offer at the Library Cafe. However, with the amount of Yoyo points they are due to be paid, next year's sabbatical officers would be able to afford to purchase seven portions of curly fries every day FiveSix-Eight is open.

Reaction to the move has been mixed. Niel Blast-off, the Union's Deputy President (Edutainment) told *Hangman*: “I think that this plan sounds like a great idea. I know that the Union has had long-running concerns over funding for the last couple of years, and this sounds like a really fair

way to settle the issue. Of course, this will in no way at all affect me, and I'll be out of here next year, but don't let that change how much my opinion

**“One potential candidate told**

**Hangman: ‘Yoyo points can't be used in Fusion? Fuck that’”**

matters.”

One student, who wished to remain nameless, told *Hangman* the

changes had made them reconsider running for a position: “I didn't have a graduate job lined up, so I thought doing a sabbatical role would be a good way of getting very well paid while not doing a huge amount of work, and having little real accountability. At first the Yoyo points thing didn't put me off, but then I realised you couldn't use them at Fusion. Fuck that.”

Students across campus had a range of opinions on the move. Comments from students *Hangman* spoke to included “that's way too many Yoyo points”, “what the fuck's a sabb”, and “turn that recorder off before I fucking bottle you.”

# HANGMAN

negafelix@imperial.ac.uk

## UCU forced to change plans for strike action

### HANGMAN

Negafelix  
Editor-in-Chief

*UCU strike plans have backfired, as students actually kind of enjoy having some time off from lectures and teaching.*

The Universities and College Union (UCU) has had to change their plans for strike action, after students turned out to not be inconvenienced at all, and actually really quite enjoyed having some time off.

This week was supposed to see the first two days of 14 total days of strike action, in a dispute between UCU and Universities UK (UUK) over changes to pension schemes. However, by the second day of strike action, representatives of Imperial UCU were forced to change tack, after plans to disrupt the student experience didn't come to fruition.

"I told my class I was going to be striking," one lecturer told *Hangman*, "and they all started cheering. Some of them were actually crying tears of relief. I had a whole speech planned out about how difficult this decision was for me, and how I

was doing it to save the future of their education, but they don't deserve it. Little shites."

*Hangman* spoke to Hubert Brack, a final year physics student whose lecture this Thursday was cancelled: "I turned up at 9am for my morning lecture, feeling all sick and depressed as usual. But then they told us lectures were cancelled, and it was as if a huge weight had been lifted. I felt free. I went around Hyde Park, and just listened to the sound of birds; I smiled at the children passing by; I... I even laughed, for the first time in four years! D-Do you... Do you know how much I missed laughter?"



Cancellations led to a "palpable sense of relief" in the student body // Flickr/Rob Wells

As a result of the cancellations, *Hangman* has heard reports of numerous students emailing the Provost to offer more of their money, and asking for higher tuition fees.

The UCU, who had hoped to cause as much disruption to College as

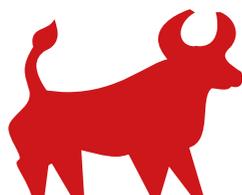
possible, had to quickly divert their tactics. "The traditional approach has clearly not worked, for whatever reason," said Rosa Klebb, UCU spokeswoman, "so we have reverted to Plan B. From now on we're going to be having an

anti-strike. We're going to be working overtime, and just piling on the problem sheets and coursework. That way these students will really have something to complain about."



**ARIES**

This week you're the *Felix* Editor, and you're so proud to see everyone picking up the paper on a Friday. They're only reading *Hangman* and the centrefold.



**TAURUS**

This week you're mainly languishing in prison after getting slightly too excited at the Baftas and launching yourself at Hugh Grant.



**GEMINI**

This week you join the picket line during the strikes, thinking it's about Fusion's price rise. By the time you've realised your mistake you've already been elected branch representative.



**CANCER**

This week you accidentally send a confession of love to *Felix* instead of your crush. They think it's a comment piece, and publish it. Lucky nobody reads the Comment section, eh?



**LEO**

This week you finally get paid for that UROP you did over last summer. Unfortunately you've already taken out a series of payday loans to pay for halls, and someone's been hired to break both your kneecaps.



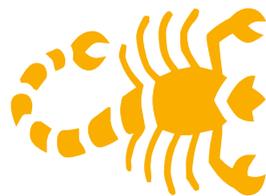
**VIRGO**

This week you're Deputy President (Clubs and Socs). You plan to visit loads of societies, but underestimate London traffic, and arrive at Harlington having missed every match you came to watch.



**LIBRA**

This week you're on the Union's elections team, and you've messed up. Again.



**SCORPIO**

This week you're the News Editor, and you've got to pretend to be interested in Theresa May's tuition fee reform. Someone has to.



**SAGITTARIUS**

This week your only source of entertainment is watching couples break up in Central Library. You twisted fuck.



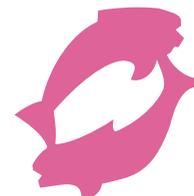
**CAPRICORN**

This week you get too deep in your feels about *Black Panther*, and end up writing your materials coursework on vibranium. You get a third.



**AQUARIUS**

This week the strikes mean tutorials are cancelled! Oh, except yours. Yeah, they're definitely still on for you. Don't forget to do those problem sheets.

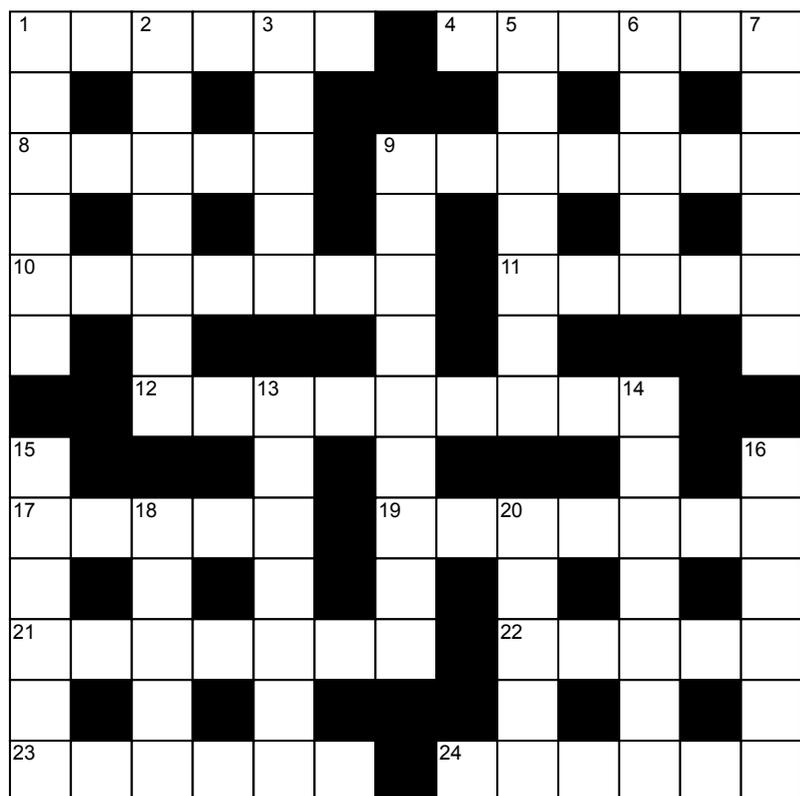


**PISCES**

This week you're the Horoscopes Writer, and you can't figure out any more ways to jam Leadership Elections into your work. It's just so fucking boring.

# PUZZLES

fsudoku@imperial.ac.uk

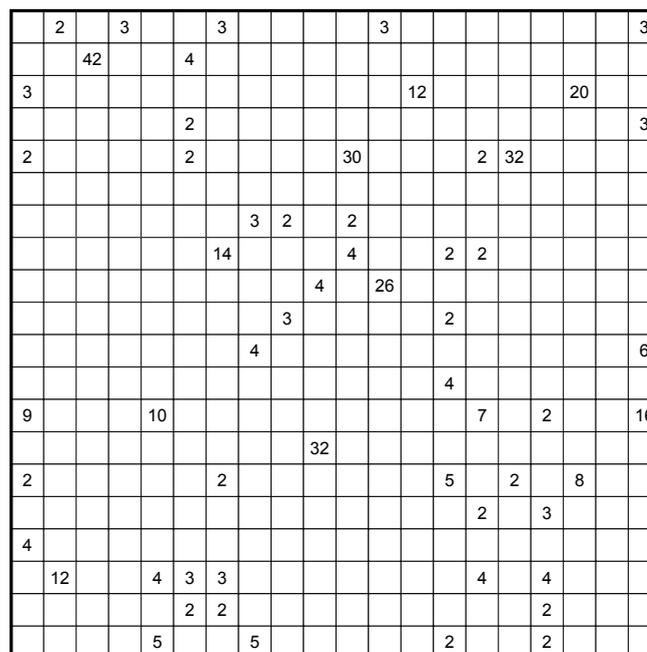


**Across**

- 1. Plot (6)
- 4. The silver state (6)
- 8. Raid (5)
- 9. Pharmacy (7)
- 10. Fruits of your labor (7)
- 11. Classical Roman priest (5)
- 12. Solaced (9)
- 17. Performed (5)
- 19. High and dry (7)
- 21. Small wood (7)
- 22. Cable support (5)
- 23. Cowboys' home (6)
- 24. On the house (6)

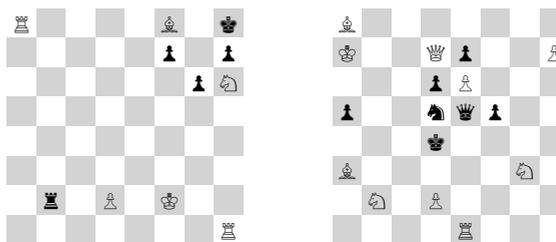
**Down**

- 1. Browser (6)
- 2. Unorthodox believer (7)
- 3. Municipal leader (5)
- 5. Graceful and refined (7)
- 6. Imitating (5)
- 7. Dessert (6)
- 9. Usual (9)
- 13. Embodiment of virtue (7)
- 14. Pair (of spectral lines) (7)
- 15. Brought up (6)
- 16. Handsome youth (6)
- 18. Spin round (5)
- 20. More mature (5)



**Boxes**

Divide the grid into rectangles with a single number in each, indicating the area.



**Chess**

White to move first with a forced checkmate in two moves for both problems.

**FUCWIT**

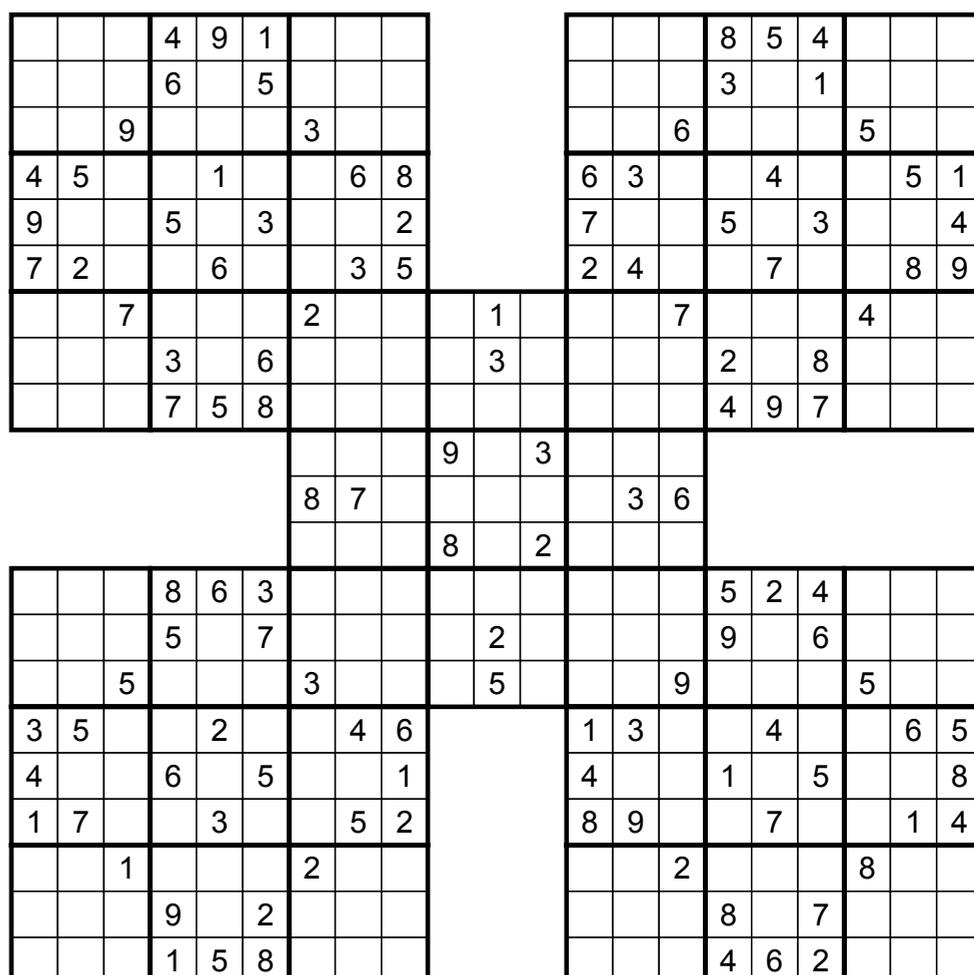
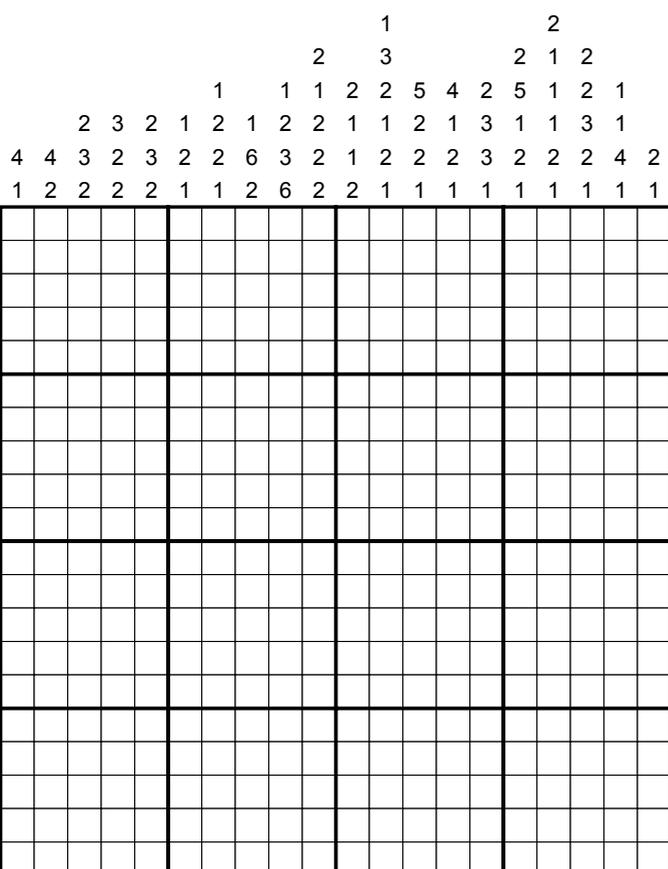
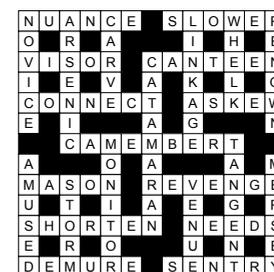
1	Nonogram of Ketamine	273
2	Q	215
3	Puzzle Snuggle Cuddle Couple	204
4	TioUdin	195
5	OK	175
6	Doctor Sudokwho	131
9	Luncheon Pals	116
10	Abelian Grapes	115
13	The Indoor Sundial	86
15	Straight outta Skempton	63
21	Snails	33
25	Maxiane	25

Send in your solutions to [fsudoku@imperial.ac.uk](mailto:fsudoku@imperial.ac.uk) before mid-day Wednesday!

**Points Available**

Crossword	4
Boxes	4
Chess	6
Nonogram	4
Samurai Sudoku	4
<b>Total</b>	<b>22</b>

**Solutions**





## Student Support Fund

If you suddenly find yourself in **financial difficulties** or experience an unexpected change in circumstances, you may be eligible to apply for **emergency financial help** through the Student Support Fund.

**CONTACT THE STUDENT  
FINANCIAL SUPPORT TEAM  
TO FIND OUT MORE:**

+44 (0)20 7594 9014

Student Hub, Level 3,  
Sherfield Building

[www.imperial.ac.uk/fees-and-funding](http://www.imperial.ac.uk/fees-and-funding)

## SPORTS

sport.felix@imperial.ac.uk

## ICXCAC elites set off to the BUCS indoor competition

*Sheffield, the land of silverware and, apparently, BUCS competitions. A bushy tailed and bright eyed newbie reports on his findings at the opening event of the athletics calendar.*

## SPORTS

**Jack Mitchell**  
ICXCAC elite athlete

**B**UCS indoors. The first big event of the athletics season was upon us. Our thirteen-strong team of elite athletes jetted off to the Northern lands of Sheffield for a full weekend of cheering, racing, and, of course, dancing the night away. Held at the English Institute of Sport, the championships offers a chance for university athletes from across the country to kick-start their season and get a sense of where they're at before the year ahead.

After a harrowing train journey full of cancelled reservations and rammed corridors, we eventually reached our destination, with some members of the club already on the track and competing less than an hour after arrival (#hardcore). Given that I had no events on the Friday, I just made for a glorified cheer-squad, so spent my day cheering on Marta in the 60m hurdles, Kate and Sarah in the

women's 800m and James and Jonathan in the men's 800m. The first day of the competition primarily consisted of heats, where athletes competed to

**"A special shout out to Sarah Johnson for making the 3000m final and Sarah Abrams who made the long jump final"**

qualify for the semi-finals or final of their event.

To finish the day, we set off to check into what turned out to be a top-quality hostel (thankfully athletics' captain Max Thorp has good taste) and for an evening cooking together as a team. Led ably by Hyde Park Relays organiser Kate Olding, we went on to produce a military amount of amazing carbonara (and it was proper carbonara too). With much of the team com-



Alpha elite squad looking mean in their IMP gear // ICXCAC

peting the following day, we then turned in early to get ready for the big day ahead.

On to Saturday we went – the busiest day of the competition, with many of our members competing (myself included). On the way to the stadium, I discovered all of the events would be filmed and streamed online, which personally I found hilarious given what a beginner to the sport I am. As long as none of my family could find the stream, I was safe. Men's Captain Lewis Jackson turned out an excellent performance in the men's 1500m, as did Kate Olding and Sarah Grover, who had both progressed to the semi-finals of the 800m. A special mention too for Women's Captain Anna Lawson who delivered a PB in the 1500m, as well as Stephanie Hewitt and Oliver Newton for their performances in their 3000m heats. Last, but not least, we had ex-Athletics' Captain Raul Rinken

throwing strong in the shot-put. It would be fair to say I hardly set the world on fire in the high jump, but the chance to experience competition at such a level and watch the other athletes leaping gracefully over ridiculous heights with ease was pretty damn inspirational (I'm talking over 2 metres here...).

After cheering on the rest of the team until the late afternoon, the day drew to a close. Having decided we had all earned it, we set off in matching ICXCAC tie-dye t-shirts for the finest Chinese all-you-can-eat that Sheffield had to offer. Following on from this, the half of the team that had finished competing went off into the night to sample the renowned Sheffield nightlife. They were not disappointed, if their appearance the following morning was anything to go by.

And then it was Sunday: finals day. Or in my case, the start of the

200m heats. No one could manage to explain to me why the entirety of the 200m competition was being run all in one day,

**"Watching the other athletes leaping gracefully over ridiculous heights with ease was pretty damn inspirational"**

but if I'm honest, it was never likely to affect me anyway. I finished an honourable sixth of six in my heat, but who can argue with a new PB? Once my heat was done, I joined the rest of ICXCAC to watch the finals – a special shout out here to Sarah Johnson for making the 3000m

final and Sarah Abrams who made the long jump final! They did not disappoint. One of the best things about going to this event was that not only did you get the chance to compete, but you got to sit and watch some of the best athletes in the country battling it out in real time (for free!). Much drama followed, from shock disqualifications, to last minute dives over the line to take the gold. What more could you ask for?

All in all, an amazing event to take part in! If you've not worked it out yet, I'm completely new to athletics, but I can honestly say getting out of your comfort zone and giving it a go is not something you'll regret. So if you fancy yourself as the next Usain Bolt, or if you just want to try it out, come along to one of our many athletics sessions!

If you want more information, you can contact our Athletics' Captain Max at [max.thorp14@imperial.ac.uk](mailto:max.thorp14@imperial.ac.uk)



The women's 4x200m team still smiling after a tough relay heat. // ICXCAC

## SPORTS

sport.felix@imperial.ac.uk

## DOUBLES SQUASH, IS THAT EVEN POSSIBLE!?

*Double-concentrated squash too strong for BUCS. IC Squash set up their own inter-university doubles competition.*

## SPORTS

**Hui-Ling Wong***Women's 1st team***David Newman****Patrick Brandl***Men's 1st team*

**Y**es, and it's safe too! IC squash hosted our Inaugural Doubles Open at Ethos, with teams hailing from our own club, Imperial alumni, students from all the various London universities, and doubles enthusiasts enticed via social media.

The tournament started on Saturday morning and featured three fields: Grade A, Grade B, and Mixed. Much to the delight of some players, a livestream on social media offered the opportunity to witness the early matches without disruption to their sacred morning routines. Starting off in group stages, the

pairs showcased not only their technique but also their ability to adapt to the traditional English ruling (11 points, best of three), which caused for some confusion about who had to serve. The first day of the tournament ended with curly fries in the union, evoking happy memories of years gone by for the numerous alumni attending the tournament.

The Mixed Final kicked things off on Sunday with the pair Victoria Leow/Alex Li (LSE) seeing off IC's former men's No1 Ian Jubb playing together with Carrie Elliott (women's 2nd team captain) in two clear games. The women's final went the full distance and LSE's pair Clara Ng/Alexa Tzarnas (LSE) triumphed over Melissa Lee (LSE)/Pamela Hathway (IC). Germany's former national player stayed on court for another final, when she was joined by Patrick Brandl (IC men's 1st team) to compete in the Grade A final. Hathway/



Winners and runners up after the prize giving ceremony // IC Squash

Brandl proved that not only can a mixed team play in Grade A, but they can even make quite an impression – they hadn't dropped a single game on their journey to the final. They faced the tournament favourites, Marco Alves / Puvendren Subramaniam (IC men's 1st team) who were also yet to drop a game.

Much to the delight of the spectators and online-viewers, the match turned out to be a close one, with both pairs being tested by long rallies (we even saw the odd dive to retrieve some balls). Unsurprisingly in a doubles match on a singles court, the referee got involved, and the players welcomed the opportunity for a friendly debate with him. Hathway/Brandl adapted their strategy to the shot-making of Subramaniam and the clean hitting of Alves, which forced lengthy and deep exchanges on the hot and humid courts at Ethos. In the end, Alves/ Subramaniam were able to exert their authority, and Hathway/Brandl had to settle for the consolation

prize of being the only pairing to claim a game off them all tournament.

We wanted the tournament to provide a competitive inter-university doubles competition, otherwise lacking in the BUCS setup, but also to serve as a means for players from different universities and different

**“Doubles can be a lot more fun than singles and is, arguably, more multifaceted”**

backgrounds to come together socially. It may come as a surprise to learn that squash doubles is played at an international level and that there is even a world championships, despite it not being commonplace at club level. It even features at the Commonwealth Games and at the Southeast Asian (SEA) Games.

Unlike in Tennis

and Badminton, where doubles is an integral part of BUCS matches, doubles squash is not played as part of the league, or as a standalone event. Singles squash seems to overshadow its high paced and ultra-tactical doubles cousin. There is also the common misconception that it is not possible to play doubles on a regular singles court. There are indeed specialised, wider courts, but these are few and far between in the UK, and you are unlikely to find one down at your local club. But it most certainly is possible to play doubles on a singles court – in fact, it makes it all the more tactical as you try to outmanoeuvre your opponent and find space where there is not much to be found.

Doubles can be a lot more fun than singles and is, arguably, more multifaceted. The game is much less about heavy hitting and fast running, and more akin to a chess battle with your opponent, thinking several moves ahead about how you are going to move them around the court, as well

as how you are going to use your partner for that killer blow to win a rally. Whereas singles is mostly won on fitness and power, doubles is won with the mind. The result being that a victory can feel as satisfying as completing the Felix crossword.

The winners of each field walked away with the latest top of the range squash rackets courtesy of Blade; with the runners up each taking home a racket bag. IC Squash would like to thank Blade Squash for sponsoring our prizes, members of the committee for helping to run and promote the tournament, Ethos for providing the squash courts for two full days, and all participants for making it a fantastic, competitive and, most importantly, highly sociable event. We hope to see you at next year's edition, but if you cannot wait that long, why not drop by the squash courts sometime to meet some of our club members? We would love to help you get into this exciting sport! Email us at [squash@imperial.ac.uk](mailto:squash@imperial.ac.uk) or find us on social media.



Tournament organiser Hui-Ling Wong (right) and Vice-tournament executive Richard Boyne (left) // IC Squash

# SPORTS

sport.felix@imperial.ac.uk

## Imperial Squash regains the Roehampton Cup

*16 universities entered the Roehampton Cup and Imperial comes out on top. Having the strongest 2nd team, and the 1st team winning the cup.*

### SPORTS

**James McCouat,  
David Newman and  
Patrick Brandl**

*Men's 1st team*

Last weekend saw Imperial Squash return victorious from the Roehampton University Cup. This highly prestigious tournament, held at the classy Roehampton Club, is a highlight of the squash calendar, and featured teams from 16 universities.

On Saturday morning we arrived fresh and raring to go. Imperial had entered both their 1<sup>st</sup> and 2<sup>nd</sup> teams. The 1st team, made up of Puvén Subramaniam, James McCouat, Patrick Brandl, Pamela Hathway, and Dave Newman stormed through their group, prevailing 5-0 over Bristol 2s, Southampton 2s, and Leicester 2s. The 2nd team, comprising of Tom Readshaw, Sam Horne, Andre Bharath, David Anderle, and Francesca Lim lost to Durham, but

a convincing win against the Kings 2s saw them progress, along with the 1st team, to the quarter-finals – the only university 2<sup>nd</sup> team to do so.

Later that day there was an exhibition match between Daryl Selby (former world no. 9) and Robbie Temple, famous for his two-handed ambidextrous style- he actually swaps his racket hand during rallies. Our very own Patrick Brandl

**“There was an all Imperial affair in the quarter-final”**

volunteered to referee the match (former chair Tom Readshaw took him by surprise seconds before the game started), and brought with him a charisma never seen before in officiating. At a contentious point, Patrick stamped his authority on the match by accusing the world no. 9 of ‘acting suspiciously’ (Selby

appeared to concede his own pick-up and after not hearing a call from the referee, changed his mind) and awarded the point to the other player. The players were both confused and somewhat reluctantly appreciative of this unorthodox but entertaining refereeing style. The match proved to be a hit with the players and the crowd. It was a fantastically entertaining way to mark the half way point of the tournament. There was a formal dinner provided after the match and Daryl thanked Patrick in his after dinner speech, admitting he “very much enjoyed his suspicious refereeing”, but not without mentioning that he “got the ball in question”. After indulging in a few group photos with Daryl, and once Pamela Hathway had finished catching up with her former colleague on the PSA world tour, the Imperial teams retreated for the night to rest up for the following day’s big matches.

The first fixture on Sunday was an intriguing one: an all Imperial affair in the quarter-final. The



Both Imperial teams celebrated the win. // IC Squash

1s progressed through to the semi-finals, but not without the 2s putting up a tough fight, providing the sternest test so far of the 1st team’s fitness and technique. Imperial 2s then faced the play-offs for places 5-8. They pushed LSE and King’s 1s right to the wire and finished the tournament comfortably the highest placed 2nd team in the competition – a superb achievement.

In the semi-final, the Imperial 1s team faced defending champions Leicester, who had brought the same winning team as last year. Imperial had lost to them at the semi-final stage in the 2017 edition of the tournament, but this time they stormed to a convincing 4-1 win. Everyone played out of their skin, especially our number 1, Puvén Subramaniam, who beat the Leicester number 1 (a PSA world ranked player), in a match many said was more exciting than the exhibition match the previous evening. Revenge tasted almost as good as the club sandwiches on offer in the members’ bar.

In the final, Imperial would come up against a Surrey team brimming with confidence after cruising through the rounds on their side of the draw. Surrey’s team were extremely tough competition and despite exceptionally brave performances at 2nd and 4<sup>th</sup> string, Imperial found themselves 2-0 down and

**“From 2-10 Imperial claw their way back to a 15-14 win, winning the cup”**

staring down the barrel after two closely contested matches. Captain Puvén Subramaniam then stepped on court and truly showed what Imperial was made of. He won his match by playing some fearlessly attacking squash. Both his opponent and the crowd were left completely stunned. At this point, still 1-2 down, Imperial’s 3<sup>rd</sup> and 5<sup>th</sup>

strings, Patrick Brandl and Dave Newman, took to the court, each knowing nothing short of a win would suffice. It was a tense affair: after drawing level in his match, Dave found himself 2-10 down in the final game. What followed was a truly nail-biting comeback that saw him win on a tense sudden death point with 15-14 – nothing short of a miracle. That’s why we call him the iceman. Spurred on by the cheers from the crowd, now flocking to see the conclusion of his title deciding encounter, Patrick found some exceptional form in the final game to win in style against a very solid opponent. Against all the odds, it meant victory for Imperial!

As a prize for winning the tournament, Imperial received a large glass trophy, VIP tickets to the Canary Wharf Squash Classic, and a year’s squash membership to Roehampton Club. Fancy getting involved with the teams and maybe helping us defend our title in 2019? Email us at [squash@imperial.ac.uk](mailto:squash@imperial.ac.uk) or find us on social media!



After-dinner speaker and Squash Pro Daryl Selby with IC Squash members. // IC Squash

# SPORTS

sport.felix@imperial.ac.uk

## Vive la surprise wins and sesh

### SPORTS

#### Ailsa Morrison

ICFC Treasurer

Eleven brave members of IC Fencing travelled to Paris to fence in the annual Challenge X-Systra – a student run fencing competition held at the École Polytechnique, including individual and team events, attracting fencers (including national team fencers) from all over Europe. Everyone competed in their respective individual events on Friday, fencing in pools, then direct elimination knock-out matches. Highlights included Ailsa and Peter finishing L16 in women's/men's foil, Jesus finishing L8 in men's foil and our favourite 2<sup>nd</sup> year

Sherry finishing with a bronze medal in women's sabre! The evening then continued with abundant wine and socialising in the uni bar and games area. Of course the Imperial fencers wanted to make the most of their trip, so got the last bus back to

**“Sunday morning started off with Filip up bright and early for his 6.10am bus to the venue”**

the accommodation, and settled down for a solid four hour sleep...

Sunday morning started off with Filip up bright and early for his 6.15am bus to the venue. Unfortunately, after falling asleep on the bus, he found himself coming all the way back to the hotel and met by the second wave of fencers. Our men's foilists were also looking pretty rough however that didn't stop Imperial having a completely unexpected but incredibly successful day. Filip, Ailsa, Ben and Sherry each teamed up with fencers from other universities, whilst we had an all-Imperial men's foil and men's sabre team. Filip, Ailsa and Sherry's teams all breezed into the finals, finishing 2<sup>nd</sup> in men's epee, 2<sup>nd</sup> (losing 43-45!) in women's foil, and Sherry added a team gold to her medal collection!

Ben's team and our



Careful – it'll poke your eye out // ICFC

men's sabreurs were knocked out in the middle stages of their events, whilst our men's foilists were had won their easier matches and were somewhat waking up. They continued winning and made it through both tough quarter and semi-fi-

nals! They were fencing better than they ever had and worked as a team. With huge support from the Imperial squad, they eventually won the final 45-39 in a closely fought match against UCL! Massive congratulations to Jesus, Javi and Peter. An

amazing day was finished off with fireworks, a free bar, dancing and snowball fights and after an hour of tourism on Sunday, and around 14 hours sleep each over the course of the trip, the snoring on the Eurostar home was excusable.

## Win-perial fencing: gold, silver, and bronze at BUCS

### SPORTS

#### Ella Rice

ICFC President

Last weekend, 26 fencers made the trek up to Sheffield to compete in the BUCS Nationals. On Friday, seven of the fencers competed in the Men's Epee and Women's Sabre. In the epee category, after initial rankings Jake Reynolds was ranked 3<sup>rd</sup> but came up against teammate Filip Anies in the knockout rounds. Filip won and proceeded to the top eight, where he met teammate James Odgers; the match was close, but James won, taking him to the semi-finals where he went on to win a bronze medal – particularly impressive



The fencers happy with their medals // ICFC

as he was recovering from injury. In Women's Sabre, Niamh was ranked 24<sup>th</sup> after initial rounds but battled her way to the quarter finals. Overall result: James Odgers 3<sup>rd</sup> (Bronze Medal), Filip Anies 8<sup>th</sup>, Niamh Spence 8<sup>th</sup>, Jake Reynolds, 17<sup>th</sup>,

Sherry Xu 31<sup>st</sup>, Louis Jennings 45<sup>th</sup> and Noah Blackmore 107<sup>th</sup>.

On Saturday, Women's Foil started bright and early, and in the first round of knockouts, two teammates, Francesca Cavallo and Ailsa Morrison, faced each other. After

a tough match, Ailsa won and made it all the way to the top 16. Men's Sabre followed shortly after, with top 64 placements achieved by Chris Erickson and Filip Anies. Overall Result: Ailsa Morrison 16<sup>th</sup>, Guilia Mandelli 30<sup>th</sup>, Frances-

ca Cavallo 40<sup>th</sup>, Chris Erickson 43<sup>rd</sup>, Sherry Xu 49<sup>th</sup>, Filip Anies 58<sup>th</sup> and Raymond Wang 81<sup>st</sup>.

On Sunday, it was Men's foil and Women's Epee turn. Francesca Cavallo was ranked 11<sup>th</sup> after the first round but fought every knockout round with amazing determination and made it to the semifinals, which was a very close match but she pushed through to win 15-14. The finals were close and Francesca fought hard but sadly lost 15-12, resulting in a silver medal overall. In Men's foil after the initial rounds, Guillermo Delberge was ranked 3<sup>rd</sup> but then faced a tough knockout run. He stayed determined and worked very hard, qualifying for semi-finals. It was close, but he went on to win 15-13 and pro-

gressed into the finals. The finals match was tense and started as a close match, but Guillermo pulled ahead, winning 15-9 and hence winning the competition. Overall result: Guillermo Delberge 1<sup>st</sup> (Gold), Francesca Cavallo 2<sup>nd</sup> (Silver), Peter Udvardi 32<sup>nd</sup>, Caroline Colagrossi 41<sup>st</sup> and Georgie Stroud 49<sup>th</sup>, Nic Gruse 66<sup>th</sup> and Javier Hernandez 68<sup>th</sup> Jesus Garcia Conando 83<sup>rd</sup> and Ben Fry 133<sup>rd</sup>.

Congratulations to the entire squad who travelled up, there was an overwhelming amount of hard work, determination and support. Up next for fencing are the BUCS team championships with several of our teams heading for a medal!

# SPORTS

sport.felix@imperial.ac.uk

## IC Netball take on Brighton town

*The netball team heads down to the south coast for a weekend of dancing, drinking, and cheesy chips. Oh, and maybe some netball...*

### SPORTS

**Siu Teo**

*ICNC Honorary Secretary*

To start the year with an absolute bang, IC Netball went to Brighton for one epic weekend consisting of a side of netball and LOTS OF SESH. After a day's grind at Imperial, the netball girls set off to Brighton by train and arrived in time for a solid night out at Coalition. Good news: we did not cause too much havoc on the train ride there, but can confirm the night was absolutely hectic. Dance moves came out and drinks were flying – all in all a great night out ending with a breezy walk alongside Brighton Pier and cheesy/curry chips (or in the case of Liv, a whole haddock and fries) to satisfy our stomachs. After all, did you even go to Brighton if you didn't get post-night

fish and chips?

Feeling robbed of our six pounds spent on chips, we got up bright and early the next day and headed down to the local Spoons – a classic really. Brunch was strong and absolutely essential (for most), before we headed down to the Manor for two hours of netball. Let's just say not everyone was in their best form, but there was still some decent play throughout! Though we definitely had some spectators sleeping/recovering from the night before's damage on the sidelines. Winners took home a hefty bottle of prosecco, ready for another night of carnage at Pryzym. After an hour and a half of netball, the UK weather decided to take a turn as per, and it wasn't long before we were drenched and desperate to jump into our Ubers back to our 'luxury' hostel. We spent the rest of the day chilling and spending our life's savings in the

arcade, where we won a billion lollipops and tacky keychains.

**“Feeling robbed of our six pounds spent on chips, we got up bright and early the next day and headed down to the local Spoons”**

We even adventured down the lanes of Brighton, and definitely treated ourselves to more chips and churros. In netball tradition, we all headed to Pizza Express to line our stomachs before Pryzym. Absolutely necessary. Then we headed



The crew before taking Brighton by storm // ICNC

back to the hostel for a solid pre-sesh consisting of tons of roasting and absolute savagery in Mr and Mrs and other group games. To ball out in style, we bagged ourselves a fancy VIP table at Pryzym and danced the night away! Can confirm, we were the youngest women

in the club but nevertheless, it was a great night. Highlights of the night include: Ellen getting absolutely binned, Olivia going to church at 2am to pray for Ellen, and Emily getting 100 pounds out of the ATM for a serving of chicken nuggets. These were just a few of many.

All in all, we ended the amazing bonding trip with a big Sunday brunch at an all American diner before heading back to gloomy London and to resume our Imperial lives. It definitely was a tour to remember, and we are all looking forward to next year's tour carnage!

## IC 3s beat GKT!

*The Netball girls are gearing up for this year's Varsity, practicing with a closely-run game against GKT, in which they emerged victorious.*

### SPORTS

**Siu Teo**

*ICNC Honorary Secretary*

34	32
Imperial Netball 3 <sup>rd</sup> Team	GKT Football 1 <sup>st</sup> Team

In the run up to Varsity, the 3s showed fighting spirit and cohesive team play in their match against GKT. Although it was a tough match, with only seven players and no subs and GKT being higher in the league than us – we were the winning team with a close score of 34-32. We started the game well with a 2-point score lead, with

defence showing consistent fighting spirit, getting many interceptions and turnovers as well as centre court and attack working well together around the D especially.

Although the 2<sup>nd</sup> and 3<sup>rd</sup> quarter were intense and very fast paced, we managed to maintain our point lead throughout with the player of the match going to both defence (GD

and GK) – Emily Jones and Ren Elvidge. Well done to these girls who played to a high standard consistently throughout the match, getting the largest turnovers as of yet! We hope to continue this amazing match play in hopes of taking home the gold medal at varsity.



The Netball team during the match // ICNC