



UCL

Department of Mathematics

Yearbook 2021



Artwork provided by student Sophia Dryden

The Graduating Class of 2021!



Ahmed Abdulla
Hashim Abdull-Radha
Hamza Abu
Fayez Ahmed
Ishaq Akbar
Erkut Akgok
Sarah Al-Ali
Rhea Alexander
Joshan Amalendran
Zhongqi An
George Anastasiades
Harriet Armitage
Tiernan Aspden
Ben Baker
Farouk Baly
Shiyng Bao
Langning Bao
Mark Barry
Rohan Barua
Adam Bedwell-Smith
Orlando Beeny
Ismail Beqiri
Emily Brown
Stella Buhalis
Rahman Butt
Meiling Cao
Xingyu Cao
Jun Cao
Chi Chan
Mingqin Chen
Fanfei Chen
Yizhi Chen
Yining Chen
Peikai Chen
Dijia Chen
Joy Cheng
Chrysanthi Christoforou
Emma Christy
Calvin Chunia
Christopher Cooper
James Cowan
Rong Cui
Shuning Dai
Antonio D'Alfonso Del Sordo
Yaqiong Deng
Chloe Ding
Xuanyin Ding
Vlad Dinu
Bofu Dong
Tamara Duncan

Christopher Dunkin
Filip Dzieciol
Heshan Fernando
Scott Forbes
Linda Friso
Mia Gardiner
Elisenda Gascon Arnal
Fangyan Ge
Peter Gibbs
Vassiliki Gini
Rica Go
Alexandros Groutides
Zhengyi Gu
Sinon Guo
Yash Gupta
Umut Halil
Hooman Hamzavizarghani
Ming Hao
Longjia Hao
Benjamin Harding
Joshua Harrison-Moerman
Callum Haynes
Yueang He
Yurou He
Joseph Hills
Alec Hong
Dawei Hu
Kexin Hu
Xiyan Hu
Yuxin Hu
Shayan Imani
Sajad Jabarivasal
Gurinder Jagpal
Renato Jasi
Soo Ji
Yutong Jia
Jimmy Jin
Jiemin Jin
Yuxi Jin
Priyesh Jitendra
Ariel Junaidi
Nikolai Juraschko
Hedi Kalai
Abinayah Kaneshalingam
Seul Kang
Christoforos Kassianides
Joseph Kenny Tipton
Reema Khanom
Donghyun Kim
Jiduk Kim

Adelaide Kitson
Raj Kundi
Artem Kutovoy
George Lambert
Eliza Lawless
Katy Lay
Ho Lee
Yoojin Lee
Myung-Kyoo Lee
Zoe Leibowitz
Zhaochen Li
Chenjing Li
Liyang Li
Ruining Li
Qinyu Li
Mofan Li
Xinyue Li
Yuzhi Li
Tingzhenhui Lin
Hongyu Lin
Haifei Lin
Jing Ling
Wangtian Liu
Dinglin Liu
Lanxuan Liu
Yanran Liu
Edmond Lo
Wenjin Lu
Edward Lui
Aengus Lynch
Zhiru Lyu
Jingwen Lyu
Yuyao Ma
Wenqi Ma
Yeung Mak
Fatima Mammadova
Yanren Mao
Emilio Mcallister Fognini
Xiaohan Meng
Kacper Micek
Will Morton
Shiza Naqvi
Georgios Nathanael
Erum Naz
Nicholas Newman
Michael Ng
Duki Nguyen
Barbara Nieto Aguirre
Kexin Ning
Haram Oh

The Graduating Class of 2021!



Patt Panayong
Ritik Patel
Shubham Patel
Reiss Patel
Esha Patel
Johanna Paul
Sheila Perez Garcia
Cameron Peters
William Phoon
Ismet Pilev
Putong Qi
Kaisheng Qi
Niall Ramphal
Sachin Ranadev
Asad Rasul
Chris Richards
Aidan Roberts
Joe Robinson
Finn Robinson-Jones
Harveer Rothar
Irene Ruan
Edgar Sait-Jones
Luke Seenath
Nirojana Shanthakumar
Yumeng Shao
Anastasia Shaura
Xueying Shen
Tianle Shi
Sevdalina Shiderova
Lingfeng Shu
Miranda Si
Tanveer Sidhu
Hugh Sipiere
Yixuan Song
Jiaxuan Sun
Yujia Sun
Zhinan Sun
Yuexin Sun
Jacky Tan
Yingzhi Tang
Selina Tang
Felicie Tard
Nabil Thoo
Haozhe Tian
Tristen Tjokro
Sonia Tomaskinova
Ingimar Tomasson
Wai Tse
Maria Olympia Tsianni
Nasan Tuyá

Jedidiah Ubaldo
Saif Uddin
Sadanand Ugale
Eylul Unlu
Muhammad Usman
Tomas Vaicius
Paul Valsecchi Oliva
Jacob Veerapen
David Villringer
Oliver Vince
Ashnaa Vyas
Tianchen Wang
Jiayi Wang
Yubing Wang
Chen Wang
Yubo Wang
Yue Wang
Shuo Wang
Qifei Wang
Tianyu Wang
Rachel Wang
Ziqi Wang
Chen Wei
Chenghao Wei
Xinyi Wen
Alice Wen
Carl White
Chalani Wickremasinghe
Tom Wray
Wenqi Wu
Tianqi Wu
Yuhang Wu
Zengxi Xiang
Shuwen Xiu
Shizhe Xu
Yiwen Xu
Jiajie Yang
Jiahao Yang
Yifeng Yang
Hanxue Yao
Shutong Ye
Shalaka Yerawadekar
Keqing Yin
Shuhan Yu
Zihe Yu
Linhong Yue
Inés Zayas Sánchez
Farheen Zehra
Xuanbei Zeng
Yiyao Zhai

Anqi Zhang
Fengqi Zhang
Yixuan Zhang
Paul Zhang
Shiyu Zhang
Zerong Zhao
Niyuan Zheng
Hanyun Zheng
Wei Zhong
Xinyi Zhou
Jiaying Zhou
Zhefan Zhou
Hao Zhu
Botong Zhu
Lin Zhu
Xuanzheng Zhu
Hong Zou

The graduating class of 2021!

You have taken your degrees very much in two halves.

It's tempting to have our thinking dominated by the second half - the online teaching, the Covid precautions, the isolation - and that will, of course, always be a part of your university experience. But I hope that when you look back on your years at UCL, your memories will be dominated by the better times, the ordinary times. Memories of each other, and of us, your lecturers; of student housing, and 9 o'clock lectures in far-flung corners of UCL; and of course, of all the social aspects of student life.

Most of you started here in autumn 2018, just as I started as Head of Department. You're a special group to me! You were the group who witnessed Professor Halburd's heart attack, early in your first term (and overruled his insistence that he was OK, and got help - thank you for that!). I'm sure you'll be pleased to see him at graduation. I taught you a few lectures of Methods I while we sorted out who would cover the module for the rest of the term. And you were the first class I taught after I took over the vector calculus half of Methods II. You were a lovely class to teach!

Since your first year, you have learned so much, and changed so much. UCL Mathematics degrees are tough, and you have worked hard to achieve your results. You have learnt a lot of mathematics (of course). You may go on to forget some of the details - but you have also learned a wide range of skills which will stay with you into your working life, from technical things like statistical literacy and coding to the more general things like time management, technical writing, and critical thinking. These will stand you in good stead whatever you are doing

next, be it further study or the beginning of your graduate career. You have also learnt a lot about how you, as an individual, learn. Your learning does not stop when you graduate; you are now a much more effective learner than you were when you arrived here three or four years ago, and I trust you will keep learning (and, yes, even learning more mathematics) as you go through life.

We in the Mathematics department **love** to know what happens to our graduates. So please do keep in touch.

Join the alumni community; keep following [@MathematicsUCL](#) on twitter; drop an email to your personal tutor when you have some news; and of course, do come to the De Morgan Dinner next year!

I wish you the very best of luck in your next steps.

Helen.



Best wishes for the future. I'm sure it will be



-Ted Johnson

All the best, Robb McDonald

Dear students: thank you for your hard work and dedication, especially during this pandemic. It always motivated me to see how you attended the remote lectures and asked relevant questions. This demonstrated your commitment to watching the recorded videos during the week. I wish you the very best for the start of your careers. Enjoy the journey. I'm sure that you'll make all of us proud! Best wishes, Alex Diaz.

Congratulations and all good wishes for a bright future!. From Dr Kwasigroch – Michal Kwasigroch, new starter from Jan 2021

Thanks to all my Open-Day Helpers and Best Wishes to all of you! Good Luck.
Robert Bowles

Dr John Talbot

Dear Class of 2021,

Well done, you made it!

It seems an age since I first met you all (you were keen freshers at my "Introduction to University Maths" lecture in October 2018).

Even while lecturing to a group of 200+ students you can still form connections with some of the audience: either they answer or ask a question; or maybe they're the one person to laugh at your not-so-funny joke. I've always enjoyed the interaction in lectures and I've certainly missed it.

It has been a pleasure teaching you all, either as personal tutees, 1st year Analysis help classes (aka "extra torture via epsilon-delta methods"), 2nd year Algebra 4 or 3rd year Graph Theory.

Those of you in my Algebra 4 class may remember that we almost made it to the end of ring theory before everything closed down. Hopefully my video editing skills have improved since those early examples!

Who could have known we'd still be only slowly re-emerging now.

Your generation has in many ways been expected to put your lives on hold during the last 18 months. I do hope that when you get the chance you will make up for the lost time by doing many amazing and wonderful things.

I would like to wish you all the very best for your future: be that careers, further studies, a well deserved year off or whatever path you choose.

Please do keep in touch, and feel free to drop by office any time you're passing!

All the best,
John



Yuxin Hu - Student contribution

I have grown and gained a lot during the three years of study in University College London. It's time to say goodbye in a twinkling of an eye, and I hope the future will be bright for all of us!



Aengus Lynch

Favourite memories:

A good fiery debate at the whiteboard on 5th floor over an analysis homework.

Summary of my time:

My mind never had a chance to rest. I'll miss that.

Inspirational quotes:

"17" - Parnovski



Ishaq Akbar



Lanxuan Liu - Student contribution

*Our first
and only
selfie in Y1*



Last three years at UCL have been so incredible. I've been so grateful to all the amazing lecturers, staffs and friends I met at UCL, who had inspired me in all their aspects. There is no doubt that we all had a tough time during COVID-19, but UCL has always kept us together with vigorous support academically and mentally. Thanks, UCL! You made me who I am today.

*Pretend
to have
a selfie
at Y3*



Farouk Baly - Student contribution



Math life



Edmond Lo

Rohan Barua

"I have thoroughly enjoyed my experience as a mathematics undergraduate, meeting new and exciting people while also exploring fascinating concepts which I'll treasure for the rest of my life."



Yuzhi Li

"This is a really great time to spend with you guys. I will miss the time without you. If you need any help at anytime, please be free to contact me. I hope you all have a good future!"



Wenjin Liu

Yizhi Chen



My favourite memory from mathematics and statistics would be the time that my group members and I worked very hard on our coursework. Teamwork, self-study, and the help we got from tutors impressed me a lot.

My overall university life at UCL is enjoyable and unforgettable.

Yiwon Xu



Yaqiong Deng

"No matter what anybody tells you, words and ideas can change the world."



**Andreea
Alecu**

Hooman Hamzavizarghani - Student contribution

“With so much drama in the U-C-L
Its kinda hard being after the M-S-c,
But I, somehow, someway
Kept up-to-date with all my modules, like, every single day.
May, I, kick a little somethin’ for the G’s and
take my notes with me through the week-end,
Two in the mornin’ and the library still jumpin’
Cos my coursework is due;
I got books in the study room gettin’ it on
And we aint stoppin’ til six in the mownin’
So what we bout to do? shieeee,
I got a mug full of coffee and my homeboys do too;
So turn on the lights and close the door,
But (but what?) we don’t got a clue!
So we gon' do our best for this,
Books up, phones down, while you other students bounce to this.”





Qinyu Li



Reiss Patel

Memory lane





ADM Society message

**A
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Dear All,

Congratulations on your graduation!

It has been an absolute pleasure to have led the UCL ADM Mathematics Society during the past year. As you all know, the 2020-21 academic year will certainly go down in history as one of the strangest academic years filled with uncertainty and change of plans. So, to say that it has been a smooth ride is a big lie.

Last March, when things were still somewhat normal, I decided to run for the presidency of the ADM society with the idea of creating a society built on core values of positivity, equality, diversity, and integrity. One in which a welcoming environment allows the voices of all students to be heard, their ideas to be effectively implemented, and positive value to be added to their lives. After you kindly elected me as your president, my team and I met multiple times during the summer and created plans for events that held a great balance between social, academic, and career-related activities and would abide by those values. However, with the pandemic spreading the way it did, UCL moved all teaching and learning online later in the summer and, therefore, we had to plot our plan of action all over again. In doing so, we still tried our very best to respect those values and proceeded to create inclusive events that virtually brought students of all backgrounds together, giving them the opportunity to network, learn, and most importantly have fun. So, I would like to thank you all for your engagement and contributions. I hope you have felt heard and have walked away from our events having made new friends and learnt something new.

I would also like to let you know that I am extremely proud of every single one of you graduates. Three, or four, years ago you summed up the courage to pursue an immensely challenging degree in the field of mathematics. Since then, you have stayed the course and overcome many hurdles that would otherwise change the trajectory of your lives. Some of these obstacles were the ordinary ones that are inherent parts of a mathematics degree at UCL, e.g., trying to balance social and academic life while getting consistent quality sleep, attending back-to-back lectures on Friday afternoons, ensuring that you can re-create the proof to the Arzelà–Ascoli theorem, and etc. However, many of these challenges were totally unprecedented and extraordinary. In particular, you have had to persevere through three national lockdown periods, keep yourselves physically and mentally fit, learn new methods of social interaction, practice virtual approaches to learning, and undertake your exams in a completely new setting.

Having done all that, I am certain that nothing else can stop you on your way to seek new vistas. So spread your wings and soar high as no bad weather can determine how high you fly!

I so appreciate you, once again, for trusting my leadership for the past year, and many thanks to the Mathematics Department for supporting our ideas and events.

Yours sincerely

Hooman Hamzavizarghani

President of the University College London Augustus De Morgan Mathematics Society 2020-21



As UCL alumni, you're a crucial part of UCL's vibrant global network and there's a huge range of useful services and exclusive benefits available to you.

Sign up for your UCL alumni card and get discounts and travel deals, access to the UCL library and much more. Plus, you can keep a UCL email address for life.

Services you have access to are:

- Free E-Journals: access to thousands of academic journals
- Alumni Online Community: connect with other Alumni using the exclusive social networking platform
- UCL Alumni Card: access to benefits and discounts available for alumni
- Alumni account: update your details to choose how we stay in touch
- Email for life: be instantly recognisable as a UCL graduate by keeping a UCL email address
- Lifelong learning: Much like Helen mentioned in her message at the beginning of this yearbook, learning does not have to stop when you graduate

Head to <https://www.ucl.ac.uk/alumni/> for more information on the alumni community, including

- Mentoring
- Professional development events
- Career advice
- Further study



Dr Sergei Timoshin

To all students graduating in the summer 2021 – my warmest congratulations on your magnificent achievement. In the last year or even a year and a half you experienced a different kind of university education, with much more emphasis placed on taking things into your own hands – from how you organise your working day to using textbooks, lecture notes and online resources to fill the gaps in preparation for the exams. I bet it was harder than the conventional, carefully guided, first- and second-year studying, but this is exactly what made you stronger in the end. You have proved to your lecturers, your parents, and first of all to yourselves that now you are well prepared to handle any future challenge. I enjoyed meeting many of you in my lectures, office hours and informal online conversations where I had plenty of opportunity to witness your mutual support, intellectual resilience, and a disarming sense of humour (especially when it came to watching my recorded lectures). It has been a privilege to work with you. Good luck with whatever you are planning to do next!

Dr Ian Petrow

To all the students in Prime Numbers 2020-21: thanks for your hard work and dedication to the course. You all fought your way through some truly tough problem sheets, but I saw firsthand the improvement and learning that resulted from this hard work. Bravo and well done! You were truly an enthusiastic and dedicated bunch of young scholars and I'm happy to have had the chance to be your teacher this past year. I hope you enjoyed the module as much as I enjoyed teaching it.

Dr Riaz Ahmad

Congratulations to you (and of course parents) on reaching this wondrous milestone. I daresay you've enjoyed the last 3/4 years, the associated challenges, and social aspects of university life. I hope you and your families have stayed well throughout these unparalleled times. Now is the exciting period to make all that hard core study work for you. Whether you are starting work, embarking on graduate study, or taking a break - all the best for good health, success, and prosperity in all that you do. Do remember technology is all around - and it's an industry sector that'll continue to grow at unprecedented levels!

Dear students,

I hope that you enjoyed your experience at UCL and that the Department of Mathematics has provided you with the necessary "toolkit" to go into the world and use this kit adequately - irrespective of what "adequately" means for you personally. Here is a quote that I have always found inspiring and would like to share with you:

"I tell my students [...] when you get these jobs that you have been so brilliantly trained for, just remember that your real job is that if you are free, you need to free somebody else. If you have some power, then your job is to empower somebody else.

This is not just a grab-bag candy game."

(Toni Morrison)

With all my best wishes for your future.

Betti Hartmann

Associate Lecturer

Yanqi Cheng (Joy) - Student contribution

It is a great experience to study at UCL. Though it has been a long time, I can still remember the wonderful time we spent at our maths common room, where we discussed questions and having parties together. The friendly and supportive environment in the department is the thing I always appreciate and enjoyed!

A big thank you to everyone, my lovely classmates and amiable staffs, who kindly support me during the past three years! It is my honour to meet and learn from you, I wish you all the best in the future :)



Yujia Sun - Student contribution



Bofu Dong, Shuhan Yu, Yujia Sun



Yuhang Wu, Yujia Sun, Shuhan Yu,
Putong Qi

Yuhang Wu, Yujia Sun, Shuhan Yu, Putong Qi



Yujia Sun, Yiwen Xu, Shuhan Yu





Fengqi Zhang



Shizhe Xu



**Dijia
Chen**

Jiduk Kim



Ruining Li

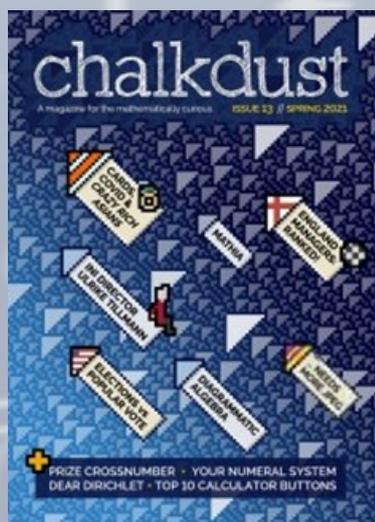
UCL Maths UG Yearbook Chalkdust Article

It's been a challenging year for Chalkdust magazine – hasn't it been for everyone – however we have managed to publish our normal two issues each packed full in interesting and fun maths, and plenty of high-quality jokes! While there have been many challenges producing a magazine when the team cannot meet properly, it has actually been an opportunity for us to expand our team with members at universities across the country.



The last time the Chalkdust team were all in one place

Across the two issues since last September we have explored topics ranging from the maths of pandemics (including conditional probability and an interview with Christina Pagel), to deciding once and for all who was the best England Football manager. All our issues are free to read on our website chalkdustmagazine.com so why not check them out if you have a spare moment.



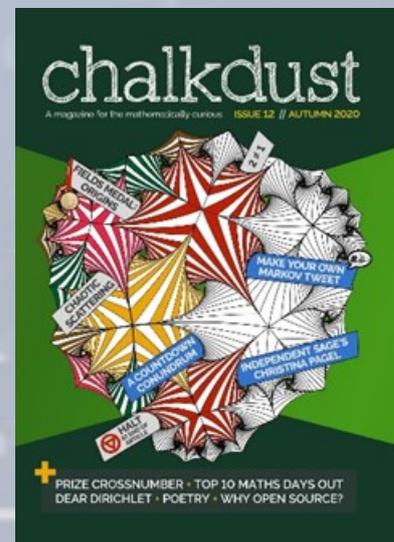
But Chalkdust is nothing without our community of readers, and we are glad that many of you have enjoyed reading our magazine, and engaging with us. We really hope that while you may be moving on from UCL, you will always feel a connection to the department, and to Chalkdust, and you won't be a stranger – maybe you'll even write an article for one of our future issues!

The last two years have been difficult for everyone; whether you are finding new ways of working and learning, or figuring out how to publish a magazine remotely, we have all been presented with unexpected challenges. While there is nothing to recommend these circumstances, nevertheless they have been an opportunity to develop new ways of working and living, hone new skills, and question some of the principles we hadn't thought about before.

Viewed in this way, this is everything that a university degree is designed to do, albeit played out much more urgently than normal. Whether you move on to use Maths every day of your life, or never want to see an equation ever again, you will leave university better equipped with the skills to succeed in a world of opportunities and challenges.

We wish you the very best of luck in everything you pursue, and hope that wherever you end up, you can keep a small place on your bookshelf for a magazine for the mathematically curious.

The Chalkdust team



Student contributions

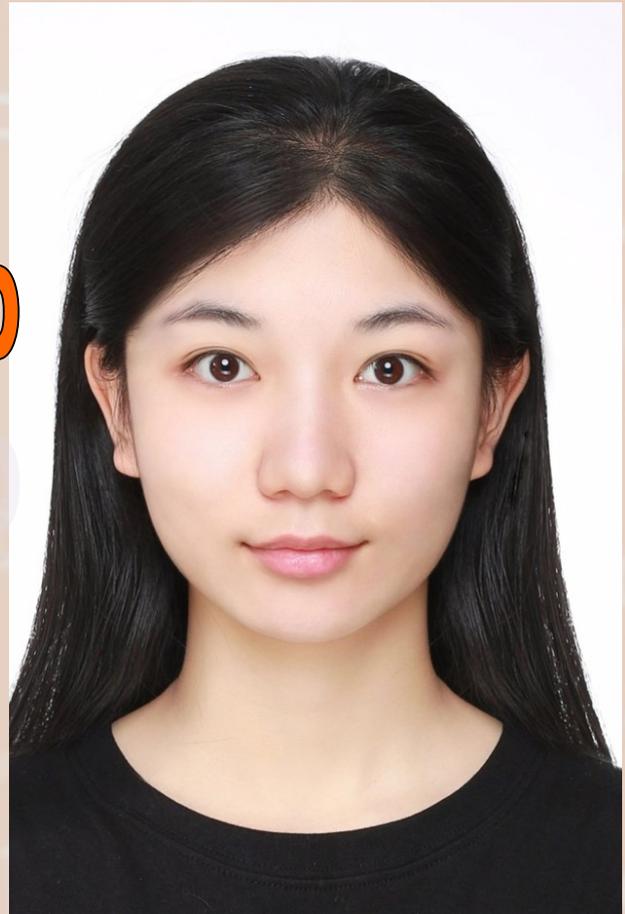


Artem Kutovoy
George Natahanael
and George Anastasiades



Yingzhi Tang

Yumeng Shao



Michael Ng