



LUCIDUS

NOVEMBER 2020 PHYSOC NEWSLETTER



Send us your Articles!

Hello everyone! I am Marius Ignat, and along with Bilgesu Aydın, Lorenzo Versini, Tobias Farchy and Hanzhi Bao we create this Newsletter. The following pages include the Physoc events coming up, yet from now on, we want to include you in this journal.

You can send us short essays about student life in the Physics Department, or articles about your scientific projects and UROPs at physics.society@imperial.ac.uk. The word limit is 300 words and feel free to include pictures!



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Arts, Physics & Everything In Between by Geraldine Cox

16:00 on November 4th (1 hour)

In this illustrated talk, artist Geraldine Cox will explain how art and science can brilliantly complement each other as ways of exploring and seeing the world. She will show us how she carefully describes complex experiments by drawing, envisions challenging concepts like quantum entanglement by painting, and designs a colourful code to describe the building blocks of the Universe. In her work, many media are involved, including sunlight powered miniature cinemas, talks, dancing, podcasts, painting, and printed fabrics. She will share how she works with everyone from young children, grown-ups, and seasoned scientists to find joyful new expressions for our knowledge and Nature's beauty.

Geraldine trained in physics and fine art and began her project in 2011 at Imperial College with an 'Artist in Residence Award' from the Leverhulme Trust. In 2020 she received the American Institute of Physics 'Andrew Gemant Award' for "articulating deep physics concepts through visual arts and other media, reaching a remarkable range of people in innovative ways and sharing her passion for the expression of physical truths".

You can find out more about Geraldine's projects on her [website](#).

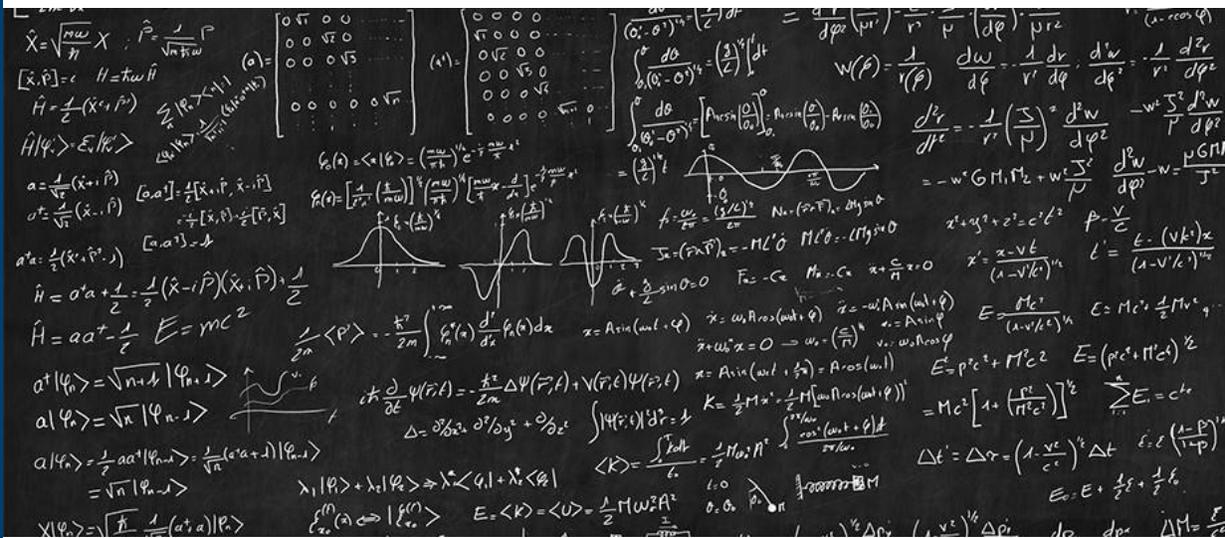
The event will take place on the [Physics Society MS Teams Channel](#).



Research Frontiers IV by Dr. Hannah Williams Artificial Quantum Matter

12:00 on November 9th
(1 hour)

Abstract: "Matter is made up of interacting particles, in order to truly understand how the universe around us behaves on a quantum level we need to simulate such systems. Theorists have done a good job so far of creating the maths and tools we need to achieve this, but they hit a brick wall when trying to simulate systems of more than 40 particles. To overcome this Feynman suggested building a computer out of "quantum mechanical elements which obey quantum mechanical laws", and this is exactly what many people are trying to do. I am working on an experiment which uses individual atoms trapped in an array of optical micro-traps "tweezers". In this talk I will tell you why quantum simulators are important, describe the experimental setup and show exciting new results where we go far beyond what is possible with a classical computer." The event will take place on the [Physics Research Frontiers Channel](#).



15 Minute Physics Starting at 12:00 on November 17th

Do you want to get to know more about the different fields of research one can explore as postgraduate physicist? We got you covered with this new series. In just 15 minutes PhD students will be introducing us to their field of research.

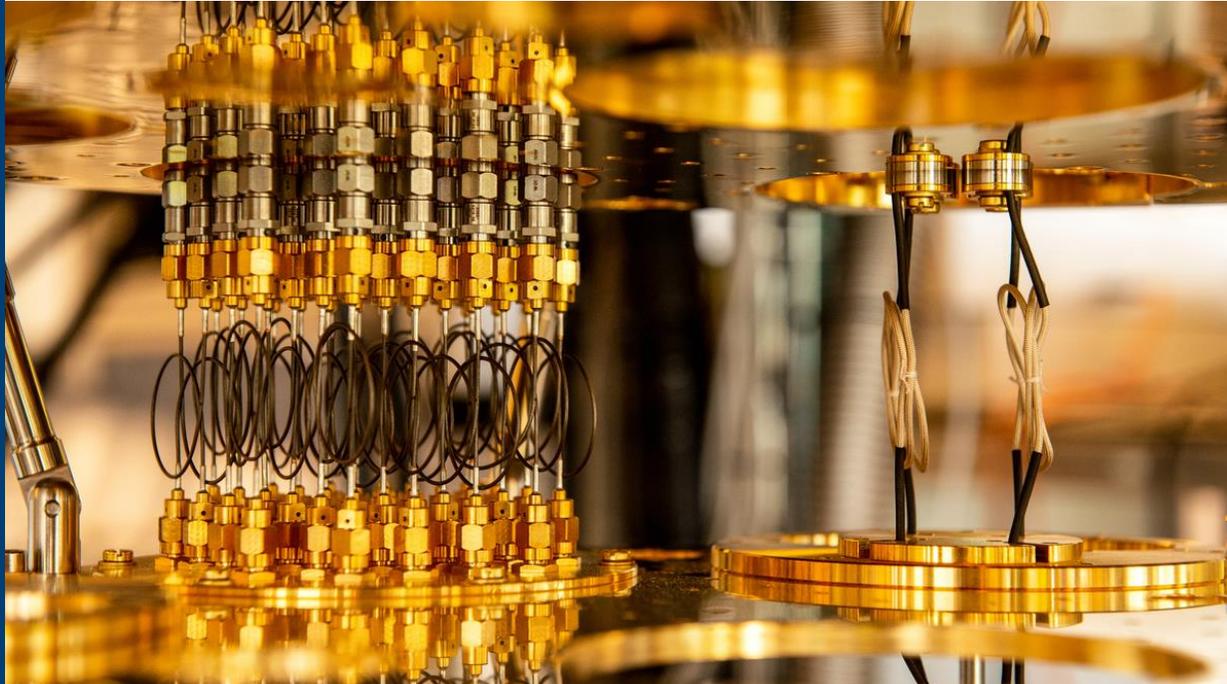
The presentations will be followed by online lab tours, Q&A sessions and opportunities for undergraduate students to chat to postgraduates. With the help of our Postgraduate Representatives, Tom and Brian, we will bring to you some amazing presentations!

The event will take place on the [Physics Society MS Teams Channel](#).

Introduction to Quantum Computing by Prof. Myunghsik Kim

Starting at 15:00 on November 18th (1 hour)

Quantum computing is **the hot topic** everyone is talking about. The Physics Society, in partnership with the Department of Computing Society, is launching a **new series** of lectures on **quantum computing** for undergraduates. The first lecture will be on Wednesday, November 18th at 15:00 UK time and will be delivered by the world-renowned researcher Prof. Myunghsik Kim. Stay tuned for the event link!



MathSoc VS PhySoc Chess Tournament

The selection stage is on November 15th

Sign up link [here](#)

After the harsh defeat at the Integration Bee last year, it's time for physics to fight back its glory. PhySoc and MathSoc will challenge in an exciting chess tournament, and we will need all the help possible to win this one! The first part of the tournament will be more social and open to any level, with the chance of playing blitz games and meeting new people from the opposite department. Then, the best players from each department will be selected to take part in the following stage of the tournament, at the end of which the ultimate winner will be selected. The final will be live streamed and commented by our partner Imperial College Chess Club.



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