

Welcome to the EPSRC Quantum Communications Hub Newsletter!



Hi there, welcome to the EPSRC Quantum Communications Hub Quarterly Newsletter. Here you can keep up to date with the latest news, events and opportunities associated with the Hub!

New Hub website launched!

We are delighted to announce that the new Hub website has gone live! The site has three distinct sections, one for the Research Community, another for Industry, Government and Media, and a final section for the Wider Community and Schools. There is a variety of new content including pages on Collaboration Opportunities, Latest Research and FAQs, We hope you will take the time to explore the site, see what's new and take in all of the new content and resources included.



Visit the new website!

New Hub technology leaflets

The Hub has recently created a series of leaflets showcasing each of the technologies being developed as part of the core Hub work and the applications. These leaflets include information on our Hub's work on Quantum Key Distribution, Chip-scale QKD, Consumer QKD, Quantum Random Number Generators, Quantum-Safe Secure Communications, Satellite QKD, Standards for Quantum Technologies and the UKQNtel. All of these leaflets can be found in the resources section of the new Hub website.

Visit the Hub resources

Quantum network demonstrated by Hub investigators is largest of its kind

The quantum internet is one step closer to becoming reality, thanks to the work of Quantum Communications Hub investigators and their collaborators, who have demonstrated the largest 'fully connected quantum network', to date.

Read more about the breakthrough on the <u>Hub website</u> or via the <u>University of Bristol's press release.</u> You can also read the <u>scientific paper here.</u>



Image: The project leader Siddarth K Joshi optimising the central quantum network hub. Image credit: Soeren Wengerowsky

'Future Horizons for Photonics Research 2030 and beyond' report released

The Photonics Leadership Group and the All-Party Parliamentary Group in Photonics and Quantum have released a report on the 'Future Horizons for Photonics Research 2030 and beyond' which aims to outline what will be possible in photonics in the next decade and beyond, and the substantial opportunities for the photonics industry in the UK.

Numerous Quantum Communications Hub investigators and advisory board members were among the 26 leading photonics academics in the UK that were invited to participate in the horizon scanning exercise, which required them to consider what the focus of photonics research will be, a decade and more from now.

You can read and download the report via the button below.



Read the report

Events

IET Quantum Engineering Webinars

The Institution of Engineering and Technology is hosting a series of webinars on Quantum Engineering, raising awareness of the new opportunities created in engineering by the emerging quantum technologies. The webinars will feature the UK Quantum Technology Hubs. The current programme for the webinars is as below:

Date: 6 October **Title:** Quantum R&D is more than just Qubits and Quantum Computers! **Speaker:** Professor Sir Peter Knight FRS

Date: 10 November **Title:** Quantum Communications Technologies **Speakers:** Professor Tim Spiller and Jonathan Legh-Smith, Head of Scientific Affairs, BT

Date: 24 November Title: Quantum Computing: where's the engineering? Speaker: Professor Dominic O'Brien

Date: 15 December **Title:** The National Quantum Computing Centre: Quantum algorithms, applications and advantage **Speaker:** Dr Michael Cuthbert

For more information and to register, please visit the link below:

Find out more



Quantum ISCF Cultivation Workshop - York Quantum Communications Hub

9 October - Online

The ISCF Quantum Team are running 'Cultivation' virtual workshops in autumn 2020. Delivered in conjunction with the Quantum Hubs these will combine an update on activities in the hubs with a forward look at the next phase of ISCF competitions, currently planned for early 2021. Although still in planning, the latter will give organisations a first look at opportunities for funding to give time for project planning and consortium building. The workshop focusing on quantum communications will take place on Friday 9 October, 1pm - 3pm and will lay out future funding available from the ISCF Quantum programme and an update from the Quantum Communications Hub.

Find out more

Let's Get Physical

12 - 16 October 2020 - Online

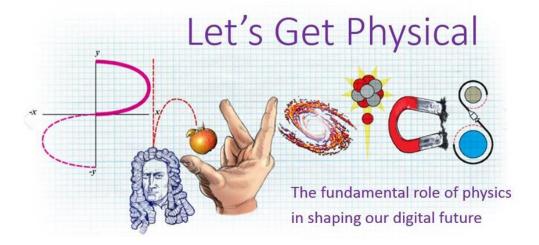
The Tommy Flower's Institute will be hosting a full week of Physics packed sessions with speakers, interactive panels and insights into demos and lab spaces.

During the conference they will be showcasing the fundamental role that physics and physicist have in shaping our digital future. They hope to spur interest and to enable cross pollination between the different subject areas within Physics but across the board as well. They will also highlight the value of collaboration between industry and academia.

Each day during the week has a specific theme:

- Monday 12th October Optics
- Tuesday 13th October Wireless
- Wednesday 14th October Post Graduate Researchers
- Thursday 15th October Quantum
- Friday 16th October Data and AI

Hub Director, Professor Tim Spiller, will be sitting on the Quantum panel on 15th October alongside: Cathy White BT; Professor Kai Bongs, University of Birmingham; and Liam Bussey, BT.



Quantum 2020

19 - 22 October 2020 - Online

The Institute of Physics and IOP Publishing, in partnership with the Chinese Physical Society (CPS) and the University of Science and Technology of China (USTC) are proud to bring together the international quantum science community online for this inaugural conference.

Early career and leading researchers from universities, industry and government worldwide will come together to share, learn and collaborate on the latest research and emerging areas of high interest across quantum science and technology. The broad themes covered by Quantum 2020 will include:

- Quantum communication;
- Quantum computing and quantum simulation;
- Quantum sensing, metrology and imaging;
- Quantum information theory, software and algorithms;
- Quantum foundations;
- Quantum technology in industry.

The four-day event will feature talks from world-renowned scientists, interactive poster sessions and two exciting panel discussions on the themes of Quantum Technology in Industry and Quantum Technology Programmes Around the World.

IOP Publishing A VIRTUAL CONFERENCE QUANTUM 2020 19-22 OCTOBER COORGANIZERS: シートル ロ オル ス か か 日 神 子 北 本 木 子 で Charactery of Function and Technology of Charactery of Characte

Find out more

UK National Quantum Technologies Showcase

6 November 2020 - Online

Due to the Covid-19 pandemic, the UK National Quantum Technologies Showcase 2020 is going online. The ethos of the event remains the same and it will build on the success of previous years, demonstrating the progress made by the National Programme, as it enters its second 5-year phase, and the growing commercialisation and industrialisation of quantum technologies in the UK.

NB. This is a highly specialist user engagement event for participants from government and the public sector, industry and business; it is not intended for academic audiences and is not suitable for educational or public attendance.



Find out more

European Quantum Week

2 - 6 November 2020 - Online

Currently the Quantum Flagship is in the planning phase for a fully digital event for November this year.

In this full week they aim to update the QT-community on latest news of the European Commission and the Quantum Flagship and integrate sessions to inform the wider public on Quantum Technologies and the magic behind.



New Scientist Live North

28 - 30 January 2022 - Exchange Hall, Manchester

The Hub (as part of Quantum City) will be attending New Scientist Live North, in Manchester, from 28 - 30 January 2022, this is a new date as the 2021 event had to be postponed due to the Covid-19 pandemic. The Hub has previously attended the award-winning science festival 'New Scientist Live' in London, however, for the first time, the festival is being held in the north of England and we are delighted to be attending. It is expected that around 9000 people will attend the festival across the three days to view exhibits and listen to talks.



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