

Quantum Technologies for Fundamental Physics

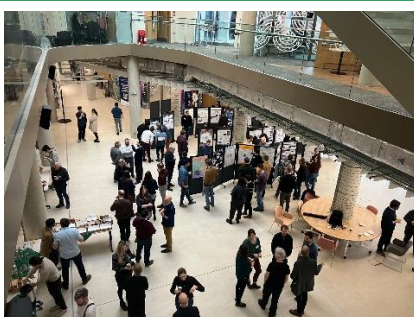
QTFP Community Meeting, Glasgow 21st-22nd January 2025

A two-day Science and Technology Facilities Council (STFC) Quantum Technologies for Fundamental Physics (QTFP) Community Meeting was held at the Mazumdar-Shaw Advanced Research Centre, University of Glasgow, Scotland from 21st-22nd January 2025. There were 146 registered participants for the meeting representing 34 UK and international institutions. The programme included excellent scientific talks, a lively poster session plus an evening reception at Glasgow City Chambers. A memorial session was held in honour of our late friend and colleague Professor Ian Shipsey FRS, who tirelessly championed the QTFP programme. It was an important opportunity to celebrate 5 years of progress through this crucial and unique part of the UK National Quantum Technology Programme and roadmap future opportunities and scientific challenges.



QTFP Community Meeting 2025 Venue and Scientific Talks *Our venue was the superb Mazumdar-Shaw Advanced Research Centre at the University of Glasgow, Scotland; Dr Sharmila Balamurugan University of Warwick presenting in the QTFP oral session.*

Over the course of the two-day meeting, there were a total of 24 oral presentations and 40 poster presentations. There were overview talks from the seven major QTFP consortia projects (QI, QSNET, QSimFP, QSHS, QUEST DMC, QTNM and AION) and exciting talks from many other UK projects within the scope of the QTFP programme. We had superb talks from international invited speakers: Dr Andreas Ringwald (DESY, Germany – overview and motivation for dark matter searches), Dr Bruno Leone (ESA – overview of ESAs quantum technology programmes), Dr Michael Doser (CERN – quantum sensors for particle physics). Dr Marcel Demarteau (Oak Ridge USA) delivered an insightful and moving memorial talk paying tribute to the late Professor Ian Shipsey FRS (University of Oxford, UK). Ian was founder of the UK's QTFP community and we were delighted that Ian's wife Professor Daniela Bortoletto (University of Oxford UK) was able to join us in Glasgow.

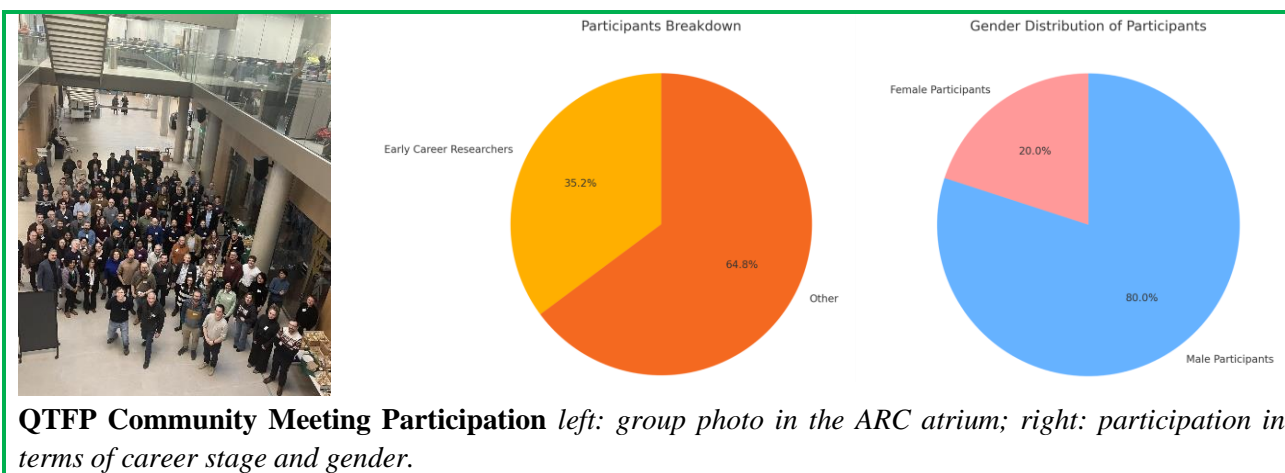


QTFP Community Meeting Poster Session: *40 posters were presented prompting lively discussions. Congratulations to our early career poster prize winners: Maciej Jarema University of Nottingham, Tineke Salmon Lancaster University and Nikitha Kuntimaddi Cardiff University.*



QTFP Community Meeting Special Events: *Dr Marcel Demarteau (Oak Ridge USA) gave a moving tribute to Professor Ian Shipsey FRS. An evening reception was held at Glasgow City Chambers: Local organizer Professor Robert Hadfield (centre left, minus gold chain) with representatives of the Lord Provost of Glasgow (left to right: Richard Paterson OBE, Deacon Convener; Anthony Carroll, Bailie; and Andrew McFarlane, Lord Dean of Guild). Dr Jason Green of STFC (with Professor Sir Peter Knight joining remotely) gives an overview of the status of the QTFP programme.*

An evening reception (generously sponsored by Glasgow City Council) was held in Glasgow City Chambers on Tuesday 21st January hosted by distinguished representatives of the Lord Provost of Glasgow. On the second day of the meeting Professor Sir Peter Knight gave an overview of the next phase of the UK National Quantum Technology Programme, including the recent launch of 5 new Quantum Technology hubs. Dr Jason Green (STFC) gave an overview of the status of the QTFP programme and likely timeline for a second phase. At the close of the meeting, laboratory tours took place of the exciting quantum technology research activities in the Advanced Research Centre.



QTFP Community Meeting Participation *left: group photo in the ARC atrium; right: participation in terms of career stage and gender.*

We are extremely grateful to STFC for supporting the QTFP research programme. We are glad there was such strong interest and engagement from the diverse and dynamic UK QTFP community. We thank everyone who contributed to making the QTFP community meeting a successful and memorable event.

Local organisers: Robert Hadfield, Devendra Kumar Namburi

Programme Committee Members:

Hartmut Grote, Ruben Saakyan, Silke Weinfurter, Stafford Withington, Giovanni Barontini, Andrew Casey, Ed Daw, Oliver Buchmueller