

Tuesday 12th May

Arrival

11:30 - 12:45: Lunch and registration

Session 1: Next generation quantum networks: the perspective from industry

Chaired by Jamie Cameron, Heriot-Watt University & IQN Hub

12:45 - 12:55	Gerald Buller, Heriot-Watt University & IQN Hub	Welcome and Opening Remarks
12:55 - 13:15	Andrew Shields, Toshiba Europe Ltd	"Quantum Safe Networking"
13:15 - 13:35	Cathy White, BT	"From Concepts to Essential Quantum Infrastructure: BT, NISQ Networks and the Critical Path Ahead"
13:35 - 13:55	Mihir Bhaskar, IonQ	"Quantum Interconnects for Distributed Quantum Computing"
13:55 - 14:15	Ben Walker-Pearl, Nu Quantum	"Optical Microcavities for Efficient Qubit-Photon Interfaces and Networked Quantum Computing"
14:15 - 14:35	Jeff Hunt, The Boeing Company	"Actualization of a Quantum Network: What Pieces are in Place? A Review of Quantum Patent Portfolio"

Coffee Break

14:35 - 15:15

Session 2: Quantum security for real-world applications

Chaired by Ciara Rafferty, Queen's University Belfast & IQN Hub

15:15 - 15:35	Sarah McCarthy, Citi	"Quantum Risk for the Financial Sector"
15:35 - 15:55	Ayesha Khalid, Queen's University Belfast & IQN Hub	"Classical Security Vulnerabilities with Quantum Cryptography"
15:55 - 16:15	Adrian Kent, University of Cambridge	"Quantum Tokens: Theory and Implementation"
16:15 - 16:35	Rutvij Bhavsar, King's College London & IQN Hub	"Higher Rates for Semi-Device-Independent Randomness Expansion by Recycling Input Randomness"

Session 3: Panel discussion on fibre-based quantum networks

Chaired by Adrian Wonfor, University of Cambridge & IQN Hub

16:35 - 17:15	Ian Davidson, University of Southampton	Zoe Davidson, BT
	Alessandro Fedrizzi, Heriot-Watt University & IQN Hub	Lisa Matthews, KETS Quantum

UK Quantum Technology Ecosystem and Poster Session

17:15 - 17:25	Introduction by Sir Peter Knight, National Quantum Technologies Programme Strategic Advisory Board
17:25 - 18:45	Poster Session and Drinks/Canapes Reception

End of day 1

18:45

Wednesday 13th May

Arrival

08:30 - 09:00: Arrival and coffee

Session 4: Quantum networking beyond QKD <i>Chaired by Sima Bahrani, University of Bristol & IQN Hub</i>		
09:00 - 09:20	Natalia Herrera Valencia, Heriot-Watt University / Intertangle	"High-Dimensional Entanglement Control for Next-Generation Quantum Networks"
09:20 - 09:40	Mohsen Razavi, University of Leeds	"Rethinking Quantum Repeaters: Balancing Scalability, Feasibility, and Interoperability"
09:40 - 10:00	Don Towsley, University of Massachusetts Amherst	"Quantum Networks: A Classical Perspective"
10:00 - 10:20	Davide Bacco, University of Florence	"Multidimensional Encoding in Quantum Networks"

Coffee Break

10:20 - 10:55

Session 5: Quantum memories and networks <i>Chaired by Alex Clark, University of Bristol & IQN Hub</i>		
10:55 - 11:15	Chloe Clear, Photonic Inc.	"Distributed Quantum Computing with Silicon Colour Centres"
11:15 - 11:35	Thomas Nieddu, Weling	"Building the Backbone of Quantum Data Centres"
11:35 - 11:55	Paul Burdekin, University of Oxford & IQN Hub	"Warm Vapour Telecom Quantum Memories for QKD"
11:55 - 12:15	Dorian Gangloff, University of Cambridge & IQN Hub	"Spins in Quantum Dots: A Quiet Revolution"

Lunch

12:15 - 13:30

Session 6: Quantum communications in space

Chaired by Andy Vick, STFC RAL Space & IQN Hub

13:30 - 13:50	Matt Shaw, NASA Jet Propulsion Laboratory	"Superconducting Nanowire Single Photon Detectors for Space-based Quantum Networking"
13:50 - 14:10	Emily Williams & Jennifer Boshier, STFC RAL Space & IQN Hub	"Quantum Technologies in Space: Engineering Experience from SPOQC"
14:10 - 14:30	Natalie Pearson, Craft Prospect	"Small Satellite Quantum Networks: Applications and Implementation"

Session 7: Panel discussion on quantum communications in space

Chaired by Daniel Oi, University of Strathclyde & IQN Hub

14:30 - 15:10	Ryan Kraliz, Lumino Technologies	Jay Lowell, The Boeing Company
	Alex Pickston, Honeywell	Matt Shaw, NASA Jet Propulsion Laboratory
	Andy Vick, STFC RAL Space & IQN Hub	

Coffee Break

15:10 - 15:50

Session 8: Implementations of quantum networks

Chaired by Cathy White, BT

15:50 - 16:10	Siddarth Joshi, University of Bristol & IQN Hub	"Quantum Networks: A Path Towards Scale"
16:10 - 16:30	Zhiliang Yuan, Beijing Academy of Quantum Information Sciences	"Repeater-Like Long-Distance Quantum Communications with Independent Remote Light Sources"
16:30 - 16:50	Prem Kumar, Northwestern University	"Scaling Quantum Networks Beyond Laboratory Research"
16:50 - 17:10	Rob Thew, University of Geneva	"The Geneva Quantum Network"
17:10 - 17:30	Viktor Krutianskii, University of Innsbruck	TBC

End of day 2

17:30