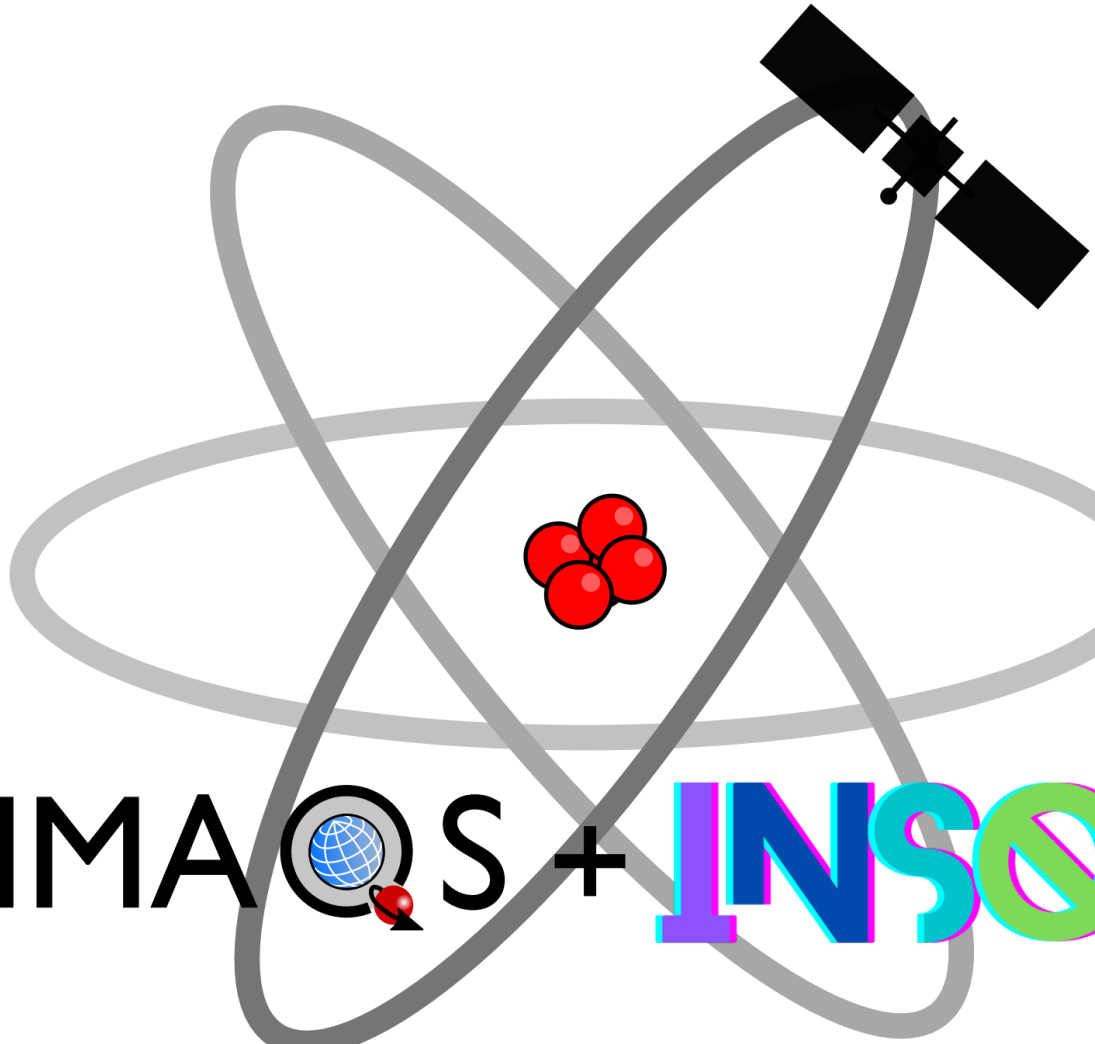


INMAQS + INSQT

Joint Meeting, Glasgow 2025

University of Strathclyde

30th July to 1st August 2025

Engineering and Physical Sciences Research Council

University of Strathclyde Science

X THE FACULTY OF SCIENCE

Griff

Michaela

James

Daniel

Engineering and Physical Sciences Research Council

University of Strathclyde Science

Wednesday 30/07/25

09:00:00	
09:10:00	
09:20:00	
09:30:00	Registration
09:40:00	
09:50:00	Welcome
10:00:00	**Plenary Session 1 Craig Clark (Strathclyde & Satellite Applications Catapult)**
10:10:00	TBA
10:20:00	
10:30:00	
10:40:00	Plenary Session 1: Questions
10:50:00	
11:00:00	Coffee Break
11:10:00	
11:20:00	
11:30:00	**Session 1.1 Jan-Simon Henning (Fraunhofer UK)**
11:40:00	Integration and deployment of quantum sensors
11:50:00	
12:00:00	**Session 1.2 Andrew MacKellar (Durham)**
12:10:00	Simultaneous multispectral terahertz imaging in a two-atomic-species vapour
12:20:00	
12:30:00	**Session 1.3 Lisa Woerner (DLR)**
12:40:00	#GreenQuantum - Quantum Technologies for a sustainable future
12:50:00	
13:00:00	**Lunch**
13:10:00	
13:20:00	
13:30:00	
13:40:00	
13:50:00	
14:00:00	**Plenary Session 2 Setnam Shemar (NPL)**
14:10:00	NPL's contribution to the Atomic Clock Ensemble in Space (ACES) mission
14:20:00	
14:30:00	
14:40:00	Plenary Session 2: Questions
14:50:00	
15:00:00	**Session 1.4 Martin Jutisz (Humboldt)**
15:10:00	Stand-alone mobile quantum memory system
15:20:00	
15:30:00	Coffee Break
15:40:00	
15:50:00	
16:00:00	**Session 1.5 Allan McWilliam (Strathclyde)**
16:10:00	Efforts in miniaturisation for thermal optical atomic clocks
16:20:00	
16:30:00	**Session 1.6 Kevin Gallacher (Glasgow)**
16:40:00	Photonic Integrated Circuits for Chip-scale Atomic Devices
16:50:00	
17:00:00	Free time
17:10:00	
17:20:00	
17:30:00	**Bus departure to Conference dinner**
17:40:00	**Conference Dinner at the Burrell**
17:50:00	
18:00:00	**Return to Glasgow for 22:00**
...	

Thursday 31/07/25

09:00:00	**Plenary Session 3: Andre Luiten (University of Adelaide)**
09:10:00	TBC
09:20:00	
09:30:00	
09:40:00	Plenary Session 3: Questions
09:50:00	
10:00:00	**Session 2.1: William Humphreys (UKSA)**
10:10:00	UK Space Agency: Quantum Space Technology Developments
10:20:00	
10:30:00	**Session 2.2 Johannes Herrnsdorf (Strathclyde)**
10:40:00	Deep Ultra-Violet Micro-Light-Emitting Diodes for Compact Quantum Key Distribution Transceivers
10:50:00	
11:00:00	Coffee Break
11:10:00	
11:20:00	
11:30:00	**Session 2.3 Daniel Gavilan (Mainz)**
11:40:00	Spin dynamics in a Rb-K-He comagnetometer
11:50:00	
12:00:00	**Session 2.4 Fabien Massabuau (Strathclyde)**
12:10:00	Tuneable radiation-resilient (AlGa)2O3 UVC photodetectors
12:20:00	
12:30:00	**Session 2.5 Grace Manahan (Strathclyde)**
12:40:00	Space Radiation application at SCAPA - the Scottish Centre for the Application of Plasma-based Accelerators
12:50:00	
13:00:00	Lunch
13:10:00	
13:20:00	
13:30:00	
13:40:00	
13:50:00	
14:00:00	**Plenary Session 4: Paolo Villoresi (Padua)**
14:10:00	Advancing the scientific objectives of space quantum communications
14:20:00	
14:30:00	
14:40:00	Plenary Session 4: Questions
14:50:00	
15:00:00	**Session 2.6 Mouli Hazra (TU Munich)**
15:10:00	Quantum emitters in solid state system for quantum technology applications
15:20:00	
15:30:00	Coffee Break
15:40:00	
15:50:00	
16:00:00	**Session 2.7 Emma Medlock (York)**
16:10:00	Satellite Channel Emulator for SPQOC mission CV-QKD channel
16:20:00	
16:30:00	**Session 2.8 Siddarth Joshi (Bristol)**
16:40:00	TBC
16:50:00	
17:00:00	**Panel Session: Future of INSQT/INMAQS**
17:10:00	
17:20:00	
17:30:00	**Reception and Poster Session**
17:40:00	
17:50:00	
18:00:00	**Poster session until 19:30**
...	

Friday 01/08/25

09:00:00	**Plenary Session 5: Ivette Fuentes Guridi (Southampton)**
09:10:00	Studying the interplay of Quantum Physics and Gravity
09:20:00	
09:30:00	
09:40:00	Plenary Session 5: Questions
09:50:00	
10:00:00	**Session 3.1: Doug Paul (Glasgow & QEPNT)**
10:10:00	The Quantum Enabled Positioning, Navigation, and Timing Hub
10:20:00	
10:30:00	**Session 3.2 Enrico Ridente (Infleqtion)**
10:40:00	Tiqker – Deployable Optical Atomic Clocks
10:50:00	
11:00:00	Coffee Break
11:10:00	
11:20:00	
11:30:00	**Session 3.3 Linda Peroux (Lille)**
11:40:00	Laser sealing for atomic devices
11:50:00	
12:00:00	**Session 3.4 Alex Gee (Kelvin Nanotechnology)**
12:10:00	Advanced Photonics and Quantum Components
12:20:00	
12:30:00	**Session 3.5 Patrick Bevington (NPL)**
12:40:00	Development of a Portable Atomic Spin Gyroscopes
12:50:00	
13:00:00	Lunch
13:10:00	
13:20:00	
13:30:00	
13:40:00	
13:50:00	
14:00:00	**Session 3.6 Kadir Durak (Qubitrium)**
14:10:00	TBC
14:20:00	
14:30:00	**Session 3.7 Jack Smith (Strathclyde)**
14:40:00	TBC
14:50:00	
15:00:00	**Session 3.8 Michael Wright (Alter)**
15:10:00	TBC
15:20:00	
15:30:00	Wrap up
15:40:00	
15:50:00	
16:00:00	
16:10:00	
16:20:00	
16:30:00	
16:40:00	
16:50:00	
17:00:00	

https://www.insqt.ac.uk/insqt-workshops/workshop-6/

Housekeeping

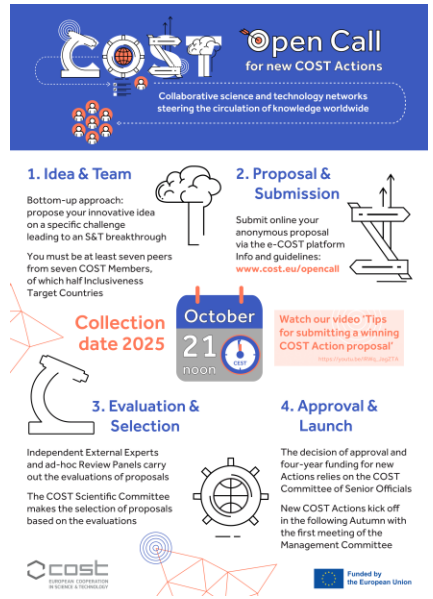
- Workshop Dinner, Burrell Collection (Wednesday):
  - Buses leaves at 17:30 from side of TIC, Shuttle St near Nicholas St
  - Buses departs the Burrell Collection 21:45 for TIC
- Workshop Group Photo (Thursday): Just before Lunch, Location TBD
- Poster Session, TIC (Thursday):
  - Put up posters at Lunch or Afternoon Coffee on Thursday
  - Poster Session/Reception starts at 17:30

- Fire Alarm Test: Friday 12:30
- Speakers and Presentations
  - Please upload onto presentation laptop prior to the session
  - We would like to distribute slides afterwards to attendees
  - Please try to keep to time and leave 5 mins for questions

- Travel Bursaries Reimbursement Claim Cut-Off Date!!!
  - Submit claim by Friday 15th August. Strict Internal Cut-Off Processing Date!!!

Announcements & Notes

- Next “INSQT” Meeting: University of Padua, Italy. Chair: Prof Paolo Villoresi, details TBA
- Things to think about, discuss, feed back, “Quo Vadis?” Follow-on to INSQT/INMAQS?
  - EU Cost Action, 21st October 2025
  - EPSRC Funding Calls
  - ESA, UK Space, DLR, ASI, CNES, NASA, CSA, JAXA, etc…
- New Leadership, New Blood, Fresh Team Members
- Invitation to joint COST Action in Relativistic Quantum Information (09/2024-09/2028) https://www.cost.eu/actions/CA23115/
- Please let us know of your success stories, new connections, ideas, projects, collaborations, or strengthening of existing activities though the Networks
- INSQT/INMAQS Synergies? Opportunity to explore crossovers and complementarities



INMAQS Summary

- **Aim:**
  - Develop a network of experts and facilitate collaboration on the development of miniaturised atomic sensors

James

Director

Erling

Co-Director

Rachel

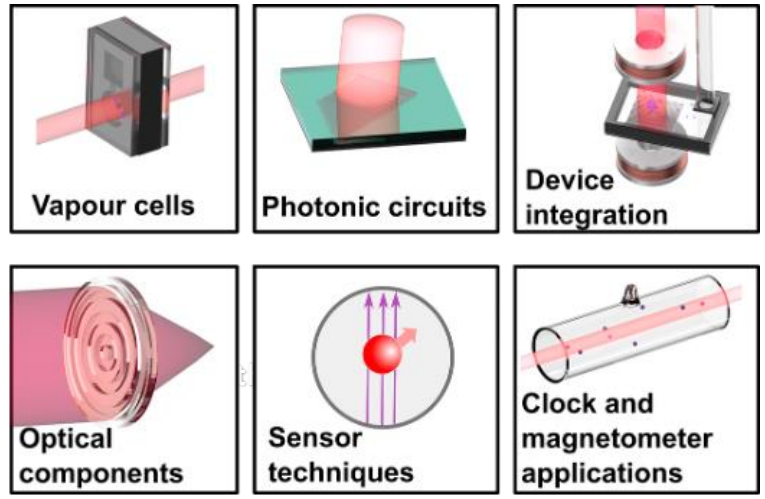
Administrator

Sensor Development

Vapour cell technology
Photonic integration
Component amalgamation
Diffractive and micro-fabricated optics

Challenges of sensing at the chip-scale

Sensor techniques
Wavelength references
Clocks
Magnetometers
Atomic platforms
Rydberg Sensors



INSQT Summary

- Promoting cooperation and collaboration in Space Quantum Engineering & Applications
- In Preparation:
  - Whitepaper/Roadmap for the Space Quantum Internet (Update during the Thursday Panel)
  - Review article: Space Quantum Engineering
- 86 0rganisations (academic, industrial, RTO, public), 22 countries

Daniel, Director

Griff, Co-Director

Rachel, Administrator

- Topics In-Scope (not exhaustive):
  - Quantum Sensors in Space
  - Space-based Quantum PNT
  - Supporting Technologies for Space-based Fundamental Tests
  - Quantum Technologies for other Space-based Science
  - Satellite QKD, space-ground/air, space-space
  - Space QComms, Entanglement Distribution
  - Quantum Constellations and Space Networks
  - Applications of Space Quantum Networks

Strathclyde Aug 2022

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