

Date: 28/04/2025 Monday	
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- Dr Olivier Carraz
10:10:00	Title: ESA activities and perspectives on Space Quantum Sensing
10:20:00	European Space Agency (ESA)
10:30:00	
10:40:00	Plenary Session 1: Questions
10:50:00	Coffee Break
11:00:00	
11:10:00	
11:20:00	Dr Zixin Huang: Macquarie University
11:30:00	Title: Quantum-enabled VLBI: a survey of applications,
11:40:00	protocols and feasibility
11:50:00	Dr Luigi Santamaria Amato: Italian Space Agency
12:00:00	Title: Single-photon sub-Rayleigh imaging and spectroscopy
12:10:00	Prof Fabrizio Sgobba: University of Bari
12:20:00	Title: Advances in quantum interferometry and metrology: testing fundamental physics with light
12:30:00	Dr Matt Himsworth: Aquark Technologies
12:40:00	Title: Low SWAP cold atom systems for sensing and timing
12:50:00	Lunch
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14:00:00	Dr David Edward Bruschi: Forschungszentrum Jülich
14:10:00	Title: Advances in quantum dynamics of photons in curved space-time
14:20:00	
14:30:00	Dr Yunhong Gong: University of Calgary
14:40:00	Title: Satellite-to-ground quantum network based on high-accuracy tracking telescope
14:50:00	Dr Paolo Fittipaldi: LIP6/Sorbonne University
15:00:00	Title: Entanglement Swapping in Orbit: a Satellite Quantum Link Case Study
15:10:00	Coffee Break
15:20:00	
15:30:00	
15:40:00	Dr Martin Bohmann: Quantum Technology Laboratories GmbH
15:50:00	Quantum communication technologies and their potential for
16:00:00	fundamental science
16:10:00	Dr Aline Dinkelaker: Leibniz-Institut für Astrophysik Potsdam (AIP)
16:20:00	Title: Astrophotonics – photonic components for high precision
16:30:00	astronomical instruments
16:40:00	First Day Questions and Discussion
16:50:00	Chair: Dr Olivier Carraz
17:00:00	Dr Zixin Huang, Dr Luigi Santamaria Amato, Prof Fabrizio Sgobba
17:10:00	Dr David Edward Bruschi, Dr Yunhong Gong, Dr Paolo Fittipaldi
17:20:00	Dr Martin Bohmann, Dr Aline Dinkelaker, Dr Matt Himsworth
17:30:00	Welcome Reception and Poster Session
	Posters
	Prof Sushil Mujumdar, Dr Nilesh Kumar, Dr Ines Becerra
	Mr Marcin Klaczak, Mr Deniz Eren Mol, Mx Elinor Spencer
	Mr Matthias Gritzner, Dr Michael Sayat, Dr Anna Marchant
19:30:00	Mr Yancho Yordanov and Mr Doncho Filipov, Dr Josefine Krause

Date: 29/04/25 Tuesday	
09:00:00	Plenary Session 2: Dr John Callas
09:10:00	Title: Precision Tests of Fundamental Physics in Space
09:20:00	NASA
09:30:00	
09:40:00	Plenary Session 2: Questions
09:50:00	Prof Hendrik Ulbricht: University of Southampton
10:00:00	Title: Levitated Mechanics payloads on Nyx Mission Possible
10:10:00	and JUPITER mission Jovian-1
10:20:00	Dr James Bateman: Swansea University
10:30:00	Title: LEVITAS: Next-Generation Space Environment Sensing
10:40:00	
10:50:00	Coffee Break
11:00:00	
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11:20:00	Dr Ravindra Desai: University of Warwick
11:30:00	Title: ROARS: Revealing Orbital and Atmospheric Responses
11:40:00	to Solar activity — A quantum-enabled mission concept
11:50:00	Mr Sunny Laddha: Technische Universität Graz
12:00:00	Title: A novel concept for a 3D-Hanle magnetometer for space application
12:10:00	Prof Gavin Morley: University of Warwick
12:20:00	Title: Fibre-Coupled Magnetometers based on Nitrogen-Vacancy Centres in Diamond
12:30:00	Dr Tristan Valenzuela-Salazar: RAL Space
12:40:00	Title: Satellite Quantum Accelerometers for Atmospheric Science
12:50:00	Lunch
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14:00:00	Dr Mustafa Gundogan: Humboldt University of Berlin
14:10:00	Title: New ideas for quantum memories in space: from gravitational clock
14:20:00	interferometry to long-lived BEC memories in microgravity
14:30:00	Dr Alan Bregazzi: University of Strathclyde
14:40:00	Title: Developing a cold-atom microwave clock with a low-volume physics package
14:50:00	Coffee Break
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15:20:00	Prof Animesh Datta: University of Warwick
15:30:00	Title: Fundamental quantum limits of testing the superposition principle
15:40:00	
15:50:00	Dr Hendrik Heine, Leibniz University Hannover
16:00:00	Title: A compact high-flux grating chip cold atom source
16:10:00	
16:20:00	2nd Day Questions & Discussion Session. Chair: Dr John Callas
16:30:00	Prof Hendrik Ulbricht, Dr James Bateman, Dr Ravindra Desai
16:40:00	Mr Sunny Laddha, Prof Gavin Morley, Dr Mustafa Gundogan
16:50:00	Dr Tristan Valenzuela-Salazar, Dr Alan Bregazzi, Prof Animesh Datta
17:00:00	Free time
18:30:00	Workshop Dinner
	Loetje. https://www.loetje.nl/nl/

Date: 30/04/25 Wednesday	
09:00:00	Plenary Session 3- Dr Lisa Woerner
09:10:00	German Aerospace Center (DLR e.V.)
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09:30:00	
09:40:00	Plenary Session 3: Questions
09:50:00	Prof Adrian Kent: University of Cambridge
10:00:00	Title: New tests of quantum theory
10:10:00	and quantum gravity in space
10:20:00	Prof Patrick Gill: National Physical Laboratory
10:30:00	Title: Compact clocks & cavities for spacen ground segments
10:40:00	
10:50:00	Coffee Break
11:00:00	
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11:20:00	Dr Daniele Dequal: European Space Agency
11:30:00	Title: ESA quantum communication activities and
11:40:00	their potential for fundamental exploration
11:50:00	Dr Mark Bason: RAL Space
12:00:00	Title: The Atom Interferometer Observatory and Network
12:10:00	Prof Bengt Eliasson: University of Strathclyde
12:20:00	Title: Use of plasma waves to detect charged space debris in the ionosphere
12:30:00	Dr Alessio Spampinato: National Physical Laboratory
12:40:00	Title: Portable laser-cooled trapped-ion optical atomic clocks
12:50:00	3rd Day Questions & Discussion Session. Chair: Dr Lisa Woerner
13:00:00	Prof Adrian Kent, Prof Patrick Gill, Dr Mark Bason,
13:10:00	Prof Bengt Eliasson, Dr Daniele Dequal, Dr Alessio Spampinato
13:20:00	Next steps for INSQT
13:30:00	Thanks and wrap up