



DAY 1 – 28 September

8:30–9:30

REGISTRATION & WELCOME COFFEE

9:30–10:05

Physics Department

OPENING SESSION

Prof Dominik Zumbühl, QuantERA Strategic Advisory Board; Director of NCCR SPIN, University of Basel

Prof Rainer Wallny, Academic Board of Swiss National Science Foundation; Department of Physics, ETH Zürich

Prof Tomasz Dietl, P.I. International Research Centre - MagTop, Institute of Physics, Polish Academy of Sciences; President of the National Science Centre Council

10:05–10:50

Physics Department

SHAPING THE FUTURE OF QUANTUM FUNDING IN EUROPE – Keynotes

Dr Oscar Diez, Deputy Head of Unit, European Commission, DG CONNECT, Unit C.2 – Quantum Technologies – [What's Next for Quantum in Europe? The Road Ahead](#)

Prof Eleni Diamanti, QuantERA Strategic Advisory Board; CNRS France; Sorbonne University; Coordinator of SRIA Preparation – [A Strategic Research and Industry Agenda for Quantum Europe](#)

Rafał Duczmal, Chair of the Governing Board of the EuroHPC JU; Strategic Expert in National Centre for Research and Development – [EuroHPC JU's Role in the European Quantum Ecosystem](#)

10:50–11:20

COFFEE BREAK

11:20–12:50

Physics Department

IMPACT OF QUANTERA – Keynotes

Prof Konrad Banaszek, QuantERA Scientific Coordinator, National Science Centre Poland

Prof Fedor Jelezko, QuantERA-funded Project; Institute of Quantum Optics; Centre for Integrated Quantum Science and Technology (IQST); Ulm University

Prof Marzena Szymańska, QuantERA-funded Project; University College London

12:50–13:50

LUNCH & QUANTERA POSTER SESSION: CALL 2025 AND CALL 2023

13:50–15:00

Physics Department

THE FUTURE ROLE OF QUANTERA IN A NEW EUROPEAN QUANTUM ECOSYSTEM

– Panel Discussion

Moderator: Anamarija Meglič, QuantERA Consortium; Ministry of Education, Science and Youth of Slovenia

Dr Oscar Diez, Deputy Head of Unit, European Commission, DG CONNECT, Unit C.2 – Quantum Technologies

Dr Kap Dong Park, Director, KE-QSTCC (Korea-Europe Quantum S&T Cooperation Center)

Dr Thierry Debuisschert, QuantERA-funded Project, Thales Research & Technology

Prof Elisabeth Giacobino, QuantERA Evaluation Panel Member, French National Centre for Scientific Research

Prof Marzena Szymańska, QuantERA-funded Project; University College London

15:00–15:30

COFFEE BREAK & QUANTERA FAMILY PICTURE

15:30–17:00

1A — Physics
Department

QUANTERA CALL 2021 FINAL SEMINAR – Parallel Sessions

1A — Communication I

- InQuRe
- QuantaGENOMICS
- uTP4Q
- VERIQTAS
- DISCO
- QD-E-QKD
- E2TPA

1B — Computation I

- EQUIP
- PhoMemtor
- DQUANT
- SIQCI
- SiQUOS
- SuperLink

1B — Biozentrum

17:00–17:30

REFRESHMENTS

17:30–18:15

Physics Department

PEER LEARNING & NETWORKING FOR QUANTERA RESEARCHERS

– CALL 2021, 2023, 2025

17:30–20:00

PARALLEL ENTERTAINING ACTIVITIES (Optional; as selected in the registration form)



DAY 2 – 29 September

9:00–11:00

2A — Physics
Department

2B — Biozentrum

QUANTERA CALL 2021 FINAL SEMINAR – Parallel Sessions

2A — Metrology

- Mf-QDS
- SensExtreme
- SQUEIS
- QuRAMAN
- LEMAQUME
- SPARQL
- QuSiED

2B — Communication II + Computation II

- EQUAISE
- CVSTAR
- MOCA
- HQCC
- MAGMA
- QOPT

11:00–11:30

COFFEE BREAK

11:30–12:45

Physics Department

WHAT QUANTERA MAKES POSSIBLE: FROM PROJECT PROPOSALS TO NEW PATHWAYS

– Panel Discussion

Moderator: Prof Andreas Wallraff, ETH Zurich

Prof Ortwin Hess, QuantERA-funded Project; Trinity College Dublin; University of Dublin

Prof Chiara Macchiavello, QuantERA-funded Project, INFN

Prof Yiwen Chu, QuantERA-funded Project; ETH Zürich, Department of Physics

Dr Frederik Flöther, QuantumBasel; University of Basel

Prof Benjamin Huard, QuantERA-funded Project, Ecole Normale Supérieure de Lyon

12:45–13:45

LUNCH BREAK

13:45–15:30

3A — Physics
Department

3B — Biozentrum

QUANTERA CALL 2021 FINAL SEMINAR – Parallel Sessions

3A — Information & Simulation

- T-NISQ
- MENTA
- TOBITS
- ExTRaQT
- MQSens
- QATACOMB
- DYNAMITE

3B — Computation III

- STAQS
- ARTEMIS
- ConSpiQuOS
- NImSoQ
- QuantumGuide
- MAESTRO

15:30–16:00

COFFEE BREAK

16:00–17:00

Physics Department

PARALLEL SESSIONS:

BUILDING QUANTUM FROM WITHIN: TALENT, INCLUSION AND WIDENING PARTICIPATION

– Panel Discussion

Moderator: Dr Florence Quist, QuantERA Consortium, Fund for Scientific Research Belgium

Dr Mira Wolf-Bauwen, Geneva Science and Diplomacy Anticipator

Dr Ticijana Ban, QuantERA-funded Project; Institute of Physics, Zagreb

Michal Vávra, QuantERA Consortium, Ministry of Education, Youth and Sports Czechia

Dr Lydia Sanmarti-Vila, Chair of the Equity Diversity Inclusion Working Group, Quantum Flagship

Prof Tomasz Smoleński, Department of Physics, University of Basel

16:00–17:00

Biozentrum

CALL 2025 – Kick-Off Workshop

Nicoleta Dumitrache, QuantERA Consortium; Executive Agency for Higher Education, Research, Development and Innovation Funding Romania

Dr Maurice TIA, QuantERA Consortium; French National Research Agency

17:00–17:20

Physics Department

IQ: IMPACT OF QUANTERA

– Announcement of the Competition Results

17:20–17:45

Physics Department

CLOSING REMARKS

Prof Konrad Banaszek, QuantERA Scientific Coordinator, National Science Centre Poland

Prof Jelena Klinovaja, Vice Co-Director, NCCR SPIN, University of Basel

17:45–18:30

FAREWELL RECEPTION



QUANTERA CALL 2021 FINAL SEMINAR – Parallel sessions

DAY 1 – 28 September, 15:30–17:00

Physics
Department

1A — Communication I

InQuRe - Field testing an integrated quantum repeater node
Prof Joerg Wrachtrup, Dr Vadim Vorobev, University of Stuttgart

QuantaGENOMICS - Quantum Enabled Secure Multiparty Computation for Genomic Medicine
Prof Eleni Diamanti, CNRS & Sorbonne University

uTP4Q - A versatile quantum photonic IC platform through micro-transfer printing
Mr Jasper De Witte, Ghent University

VERIQTAS - Verification of quantum technologies, systems and applications
Prof Remigiusz Augusiak, CFT, Polish Academy of Sciences

DISCO - Dicke-enhanced single-emitter strong coupling at ambient conditions as a quantum resource
Prof Ortwin Hess, Trinity College Dublin, The University of Dublin

QD-E-QKD - Quantum Dots for Entanglement-based Quantum Key Distribution
Prof Rinaldo Trotta, Department of Physics, Sapienza University of Rome

E2TPA - Exploiting Entangled two-photon absorption
Dr Rob Thew, University of Geneva

Biozentrum

1B — Computation I

EQUIP - Error Correction for Quantum Information Processing
Dr Valentin Savin, Quobly - video presentation

PhoMemtor - Photonic Quantum Memristor Networks
Mr Iris Agresti, University of Vienna

DQUANT - Dissipative Quantum Chaos Perspective on Near-Term Quantum Computing
Prof Pedro Ribeiro, Instituto Superior Técnico - University of Lisbon

SIQCI - Scalable Architecture for Ion-Trap Quantum Computing Integration
Dr Juris Ullmanis, Alpine Quantum Technologies GmbH

SiQUOS - Superconducting Silicon Qubit in CMOS Technology
Dr François Lefloch, Commissariat à l'énergie atomique et aux énergies alternatives (CEA)

SuperLink - Superconducting quantum-classical linked computing systems
Prof Giovanni Piero Pepe, Università di Napoli Federico II & CNR SPIN



QUANTERA CALL 2021 FINAL SEMINAR – Parallel sessions

DAY 2 – 29 September, 09:00–11:00

Physics
Department

2A — Metrology

Mf-QDS - Microfluidics Quantum Diamond Sensor
Prof Javier Prior Arce, Universidad de Murcia

SensExtreme - Quantum sensing with diamond defects at extreme conditions
Prof Jean-Francois Roch, ENS Paris-Saclay

SQUEIS - Squeezing-Enhanced Inertial Sensing
Dr Luca Pezzè, Consiglio Nazionale delle Ricerche (CNR-INO)

QuRAMAN - Quantum enhanced Raman spectroscopy for bioimaging applications
Dr Mikael Lassen, Danish Fundamental Metrology A/S

LEMAQUME - LEvitated MAgnets for QUantum Metrology
Dr Andrea Vinante, Consiglio Nazionale delle Ricerche (CNR)

SPARQL - Sequential parametric amplification: quantum technology with multimode light
Prof Avi Pe'er, Bar Ilan University

QuSiED - Quantum simulation with engineered dissipation
Dr Lorenzo Rossi, The Institute of Photonic Sciences (ICFO)

Biozentrum

2B — Communication II + Computation II

EQUAISE - Enabling QUAntum Information by Scalability of Engineered quantum materials

Prof Antonio Polimeni, Dipartimento di Fisica, Sapienza Università di Roma

CVSTAR - Continuous-Variable Multi-User Quantum Key Distribution for 5G and distributed storage applications

Prof Tobias Gehring, Technical University of Denmark - video presentation.

MOCA - Integrated microwave to optical conversion on a superconducting atom chip
Prof Jozsef Fortagh, University of Tübingen

HQCC - Hybrid Quantum Classical Computation
Prof Andris Ambainis, University of Latvia

MAGMA - Magnetic topological insulators for robust Majorana bound states
Prof Thomas Schmidt, University of Luxembourg

QOPT - Quantum algorithms for optimization
Prof Aleksandrs Belovs, University of Latvia



QUANTERA CALL 2021 FINAL SEMINAR – Parallel sessions

DAY 2 – 29 September, 13.45–15:30

Physics
Department

3A — Information & Simulation

T-NISQ - Tensor Networks in Simulation of Quantum matter
Dr Pietro Silvi, Padua University

MENTA - Accessible Quantifiers of Multipartite Entanglement in Atomic Systems
Dr Christoph Westbrook, Laboratoire Charles Fabry de l'Institut d'Optique Graduate School

TOBITS - Non-Abelian anyons for topological qubits
Dr Jakub Tworzydło, Faculty of Physics, University of Warsaw

ExTRaQT - Experiment and Theory of Resources in Quantum Technologies
Dr Alexander Streltsov, Institute of Fundamental Technological Research, Polish Academy of Sciences

MQSens - Quantum sensing with nonclassical mechanical oscillators
Prof Yiwen Chu, ETH Zürich

QATACOMB - Quantum correlations in Terahertz qcl COMBs
Dr Luigi Consolino, Consiglio Nazionale delle Ricerche (CNR-INO)

DYNAMITE - Next Generation Quantum Simulators: From DYNAMical Gauge Fields to Lattice Gauge Theory
Prof Maciej Lewenstein, The Institute of Photonic Sciences (ICFO) -video presentation.

Biozentrum

3B — Computation III

STAQS - Shortcuts to Adiabaticity for Quantum Computation and Simulation
Dr Glen Mbeng, University of Innsbruck

ARTEMIS - Neural networks controlling superconducting quantum circuits
Prof Benjamin Huard, Ecole Normale Supérieure de Lyon

ConSpiQuOS - Controlling Spins in Quantum systems in an Online Setting
Mr Jonatan Kutchinsky, Quantum Machines/Qdevil

NimSoQ - New Imaging and control Solutions for Quantum processors and metrology
Dr Anna Kaminska, Creotech Quantum S.A. - video presentation.

QuantumGuide - Hollow-core fiber atom guide for quantum devices
Dr Juris Ullmanis, Alpine Quantum Technologies GmbH

MAESTRO - Mastering Technologies for Scalable Spin-based Solid-State Quantum Processors
Dr Mario Bähr, CIs Forschungsinstitut für Mikrosensorik GmbH

QuantERA Poster Session

QuantERA Call 2025

μQOC	Microcombs for Quantum Optical Clocks
AL FreSQO	Atom-Light Free-Space Quantum Optics networking
APPSUNCAP	Applications of Superconducting Non-Linear Capacitors
DEMAND	Deterministic Electrically-driven Monolithic Architecture for quantum Network Distribution
DISQO	DISordered-tailored Quantum Optical sensor
EXCEL-QKD	Exploration of Cell-free Quantum Key Distribution
FALCON	Fault tolerant control of warm ions
ICON	Hollow Core Fibers for Quantum Communication with Quantum Dots
IgnisQNC	Harnessing Quantum Uncertainty: Trustworthy Quantum Neural Computing for Quantum Utility
IQNoVa	Interconnected Quantum Nodes Benchmarking and Validation
LINQSENS	Loss-tolerant INTEgrated Quantum SENSors based on nonlinear interferometry
Q-SPEC3D	Quantum-enabled SPECTral 3D imaging and estimation
QuantI-PEP	multi-modal Quantum Imaging of cellular metabolism for high throughput screening for peptide-based cancer vaccines
QuantLIGs	Quantum Tuning of "Laser Induced Graphene" for Sensing
Quantum4Health	Quantum Imaging System for Intraoperative Highly Effective Diagnostics Allowing Gentle Tumor Surgery and High Impact for Healing
QUICFIRE	QUantum Internet Components in all-Fibre REalisation for low-loss entanglement distribution
SINPHONI	On-chip Moiré Single-Photon Emitters for Quantum Communications
TeRaRy	Precision terahertz-radiation detection with Rydberg atoms
2DQUEST	Quantum Engineering in Superconducting Graphene for Topological Qubits
BATIR LE CHAT	Bosonic quAntum compuTeRs, LEarning, CHaracterization And Testing
CoMaQLev	Magnetically Co-Levitated Superconductors in the Quantum Regime
DigiAnaQsim	Digital methods in analog quantum simulation
ENTUNE	Entangled and Tunable Nanomechanical Quantum Systems
EQUALITIES	Efficient Fault-Tolerant Quantum Computing via Fine-Grained Logic Gates on Qudit Codes
EQUINOCS	Enhanced quantum interactions for optical clocks
FeedbacQ	Feedback-enabled quantum optimization and control
HEMS	Heat and Entropy Management in Superconducting Devices
INTEGRA	Innovative Architectures for Next-Generation Trapped Atom Interferometers
MultiQS	Super-resolved MULTI-parameter Quantum Sensing with arrays of diamond nanoneedles
QM3L	Quantum protocols for Multimode Mechanics advanced by Machine Learning
QNA	Quantum Network Algorithms
QUARCKS	Quantum Robust hyper-Clocks and atomic Sensors
QUASIMODO	QUAntum Simulations with MulticOmponent ultracold atOms
ResonaTHOR	Resonator-based nuclear optical frequency reference
SDPCode	Semidefinite foundations for quantum codes: convergence, bounds, and constructions
STAQuS	Synthetic Topological Andreev States: Protected Qubits & Simulators
TEMISIS	Taming the tElecom eMission of Spin-defects Integrated in Silicon
ToDiQT	Towards Device-independent Quantum Technologies
ULTRANARROW	Ultranarrow optical and spin transitions in ultrapure crystals

QuantERA Call 2021 & 2023

QM3	Quantum Multi-Modal Microscopy
AQuSeND	Advanced Quantum Sensing with NanoDiamonds
COMPHORT	Quantum Communications with bright solid-state single-Photon emitters at Room Temperature
COMPUTE	nonCommutative polynOMial oPtimisation for qUanTum nEtworks
ElQuRes	Electronic Quantum Resources
EXTRASENS	Color centers in diamond nanoneedles for intra- and EXTRA-cellular quantum SENSing
MEEDGARD	Protection of quantum information in small clusters of qubits
MENTA	Accessible Quantifiers of Multipartite Entanglement in Atomic Systems
QISS-ME	All-Silicon Quantum Key Distribution Circuits for Monolithic Datacenter Engines
QNet	Transport, metastability, and neuromorphic applications in quantum networks
SiCqurTech	Silicon Carbide Qubits towards a Fab-Ready Technology