

QUANTUM TECHNOLOGIES IN EUROPE

Madrid, 22-23 November 2023

Venue: Fundación Ramón Areces. c/ Vitruvio, 5. 28006 Madrid, Spain

Day 1: 22nd November

12:30 – 18:45

12:30 *Registration & Welcome lunch*

WELCOME

14:00	Fundación Ramón Areces	Ambassador Raimundo Pérez-Hernández Director General Fundación Ramón Areces
14:05	Chair of the Conference: Agencia Estatal de Investigación	Prof. Domènec Espriu Director Agencia Estatal de Investigación Ministerio de Ciencia e Innovación
14:10	QuantERA	Prof. Konrad Banaszek QuantERA Scientific Coordinator National Science Centre Poland
14:15	Ministerio de Ciencia e Innovación	Prof. Raquel Yotti Álvarez Secretaria General de Investigación Ministerio de Ciencia e Innovación

POLICY SESSION

Chair: Prof. Domènec Espriu

Agencia Española de Investigación, Ministerio de Ciencia e Innovación

14:25	The strategy of Europe in quantum technologies	Dr. Thomas Skordas Deputy Director General for Communications Networks, Content and Technology European Commission
14:40	The role of Spain within the EU quantum landscape	Ms. Carme Artigas Secretaria de Estado de Digitalización e Inteligencia Artificial Ministerio de Asuntos Económicos y Transformación Digital

KEYNOTES SESSION

Chair: Prof. Philippe Grangier
Centre National de la Recherche Scientifique

15:00	Simulating quantum physics with quantum computers	Prof. Juan Ignacio Cirac Max Planck Institut für Quantenoptik
15:30	Superpositions, quantum interferences and entanglement in qubit systems	Prof. Serge Haroche Nobel Prize 2012 Laureate Laboratoire Kastler Brossel & Collège de France
16:00	Quantum foundations: from curiosity to quantum information and back to curiosity	Prof. Anton Zeilinger Nobel Prize 2022 Laureate, Universität Wien, Institute for Quantum Optics and Quantum Information, Austrian Academy of Science
16:30	Questions & Answers	
16:45	<i>Coffee break</i>	

PANEL DISCUSSION: THE QUANTUM IN EUROPE

Chair: Prof. Tommaso Calarco
Forschungszentrum Jülich and EU Quantum Flagship

17:15	Prof. Juan Ignacio Cirac Prof. Serge Haroche Prof. Anton Zeilinger Dr. Thomas Skordas Prof. Élisabeth Giacobino Dr. Enrique Lizaso	Max Planck Institut für Quantenoptik Nobel Prize 2012, Laboratoire Kastler Brossel & Collège de France Nobel Prize 2022, Universität Wien, IQOQI, Austrian Academy of Science DG CONNECT, European Commission Sorbonne Université & QuantERA European Quantum Industry Consortium
18:30	Closing remarks by Prof. Domènec Espriu	
18:40	<i>Family Photo</i>	
18:45	<i>End of the day and "vino español"</i>	

Day 2: 23rd November

QUANTUM: ACHIEVEMENTS AND CHALLENGES

Chair: **Dr. Juan José García Ripoll**

Consejo Superior de Investigaciones Científicas

09:00	Building the Spanish quantum computer	Dr. Alba Cervera Lierta Barcelona Supercomputing Center - Centro Nacional de Supercomputación
09:25	Quantum communication in Spain and Europe	Prof. Valerio Pruneri Instituto de Ciencias Fotónicas
09:50	Quantum simulation	Prof. Monika Aidelsburger Max-Planck Institute of Quantum Optics Ludwig-Maximilians Universität München
10:15	Quantum sensing	Prof. Fedor Jelezko Universität Ulm
10:40	Round table discussion	All Speakers

10:45 *Coffee break*

QUANTUM TECHNOLOGIES IN EUROPE: FROM SCIENCE TO BUSINESS

Chair: **Dr. Enrique Sánchez**

Forschungszentrum Jülich and EU Quantum Flagship

11:15	Creating a European quantum industry – a global perspective	Mr. Carlos Kuchkovsky QCentroid
11:30	From science to business – funding and investment	Dr. Samira Nik European Innovation Council
11:45	QuantERA research commercialisation	Dr. Sergueï Fedortchenko Agence Nationale de la Recherche, QuantERA
12:00	QuantERA Project: NiMSoQ	Dr. Anna Kaminska Creotech Instruments S.A.
12:10	QuantERA startup: Quantum Machines	Dr. Itamar Sivan Quantum Machines
12:20	Multiverse computing	Dr. Enrique Lizaso Multiverse Computing, European Quantum Industry Consortium
12:30	Round table discussion	All Speakers & Ms. Andrea G. Rodríguez European Policy Center
13:10	Closing remarks	Prof. Konrad Banaszek QuantERA Scientific Coordinator

13:15 *End of the day and open lunch*

Streaming

22 November 2023, 14:00 – 18:40 CET	23 November 2023, 9:00- 13:15 CET
<ul style="list-style-type: none">• Original/English sound: https://youtube.com/live/vRXWLPU7Mhw?• Spanish translation: https://youtube.com/live/UUIYRfCy_Jc?	<ul style="list-style-type: none">• Original/English sound: https://youtube.com/live/QMFp2s2Aixs?• Spanish translation https://youtube.com/live/8zliVeQrc9g?