



Focus Day Quantum Computing | June 28, 2023

LASER World of PHOTONICS | World of QUANTUM 2023,
Forum Quantum Science & Industry (Hall A1, Booth 220)

Program

SESSION 1: QUANTUM COMPUTING HARDWARE	
10:00	Neutral-Atom Quantum Computing in the Munich Quantum Valley Dr. Sebastian Blatt (Ludwig-Maximilians-Universität München & PlanQC GmbH)
10:20	Photonic Quantum Computing – Highest Standards for Photonic Integrated Circuits Dr.-Ing. Stefan Hengesbach (QuiX Quantum B.V.)
10:40	Quantum Computing with Trapped Ions Prof. Dr. Ferdinand Schmidt-Kaler (Johannes Gutenberg-Universität Mainz)
11:00	Towards Scaling Semiconductor Qubits with Electron Shuttling and Industrial Technology Prof. Dr. Hendrik Bluhm (Forschungszentrum Jülich)
11:20	Quantum Computing: An Overview of Diamond Spin-Based Opportunities and Obstacles Dr. Gopi Balasubramanian (XeedQ GmbH)
11:40	The Path towards Quantum Advantage: Our Perspective from the NISQ Era Dr. Inés De Vega (IQM GERMANY GmbH)
12:00	Lunch
SESSION 2: QUANTUM COMPUTING ECOSYSTEM	
13:10	“Quantum Ecosystem Deutschland” (Q.E.D.) –The Socio-Economic Accompanying Research on the Way to a Strong Quantum Computing Ecosystem in Germany Dr. Friedrich Dornbusch (Fraunhofer-Zentrum für Internationales Management und Wissensökonomie IMW)
13:30	Managing the Transition from a Public Funded Ecosystem to Strong Quantum Companies Johannes Verst (Quantum Business Network)
13:50	Shaping the Quantum Computing Ecosystem: The DLR Quantum Computing Initiative Dr. Philipp Ranitzsch (DLR Quantum Computing Initiative)
14:10	Coffee
SESSION 3: ENABLING TECHNOLOGIES FOR QUANTUM COMPUTING	
14:30	A Microelectronics Research Fab to Scale Quantum Computing Dr. Tim Rom (Forschungsfabrik Mikroelektronik Deutschland)
14:50	Number Resolved Photon Detection with Off-the-Shelf SNSPDs Dr. Helmut Fedder (Swabian Instruments GmbH)
15:10	Enabling Quantum Computation: Requirements and Challenges Matthias Niethammer (Advanced Quantum GmbH)
SESSION 4: QUANTUM COMPUTING SOFTWARE	
15:30	Alternatives to Variational Algorithms Dr. Michael Marthaler (HQS Quantum Simulations GmbH)
15:50	DLR QCI: Quantum Computers in Action Dr. Andreas Spörl (DLR Quantum Computing Initiative)
16:10	Quantum Technologies for and inside Federal Governance Project QU-GOV Dr. Oliver Muth (Bundesdruckerei Gruppe GmbH)
16:30	End of the event