



Focus Day Quantum Sensing | June 27, 2023

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

Program

11:15	Opening Federal Ministry of Education and Research
SESSION 1: MEASURING THE EARTH	
11:25	Overview Quantum-Based Metrology: Perspectives and Fields of Application Part 1 Dr. Elena Jordan (Physikalisch-Technische Bundesanstalt)
11:55	Absolute Aero Quantum Gravimetry AeroQGrav Dr. Waldemar Herr (Leibniz Universität Hannover)
12:15	Quantum Gradiometer for Geoexploration and Explosive Ordnance Detection QGrad Prof. Dr. Ilja Gerhardt (Leibniz Universität Hannover)
12:35	Nuclear Spin-Based Quantum Gyroscopes for New Space Applications QYRO Dr. Lara Torralbo Campo (Q.ANT GmbH)
12:55	Lunch
SESSION 2: MEDICINE AND HEALTH	
13:55	Overview Quantum-Based Metrology: Perspectives and Fields of Application Part 2 Prof. Dr. Jens Anders (Universität Stuttgart)
14:25	Diamond-Based Quantum Sensing for Neurosurgery DiaQNOS Dr. Arne Wickenbrock (Johannes Gutenberg-Universität Mainz)
14:45	Revolutionising Cancer Imaging with Quantum Technologies QuE-MRT Ilai Schwartz (NVision Imaging Technologies GmbH)
15:05	Quantum Sensor for Improved Detection of Authenticity and Ingredients of Food Products QSPEC Dr. Stephan Suckow (AMO GmbH)
15:25	Coffee
15:55	Quantum Light for New Imaging for Early and Differentiated Detection of Biomarkers in Personalised Medicine QEED Dr. Sven Ramelow (Humboldt-Universität zu Berlin)
16:15	Quantum Microscopy with Non-Detected Light for Chemical-Selective Imaging of Tumor Tissue in the Clinical Setting QUANCER Dr. Markus Gräfe (Technische Universität Darmstadt)
16:35	Laser Threshold Magnetometer for Neural Communication Interfaces NeuroQ Dr. Jan Jeske (Fraunhofer-Institut für Angewandte Festkörperphysik IAF, Freiburg)
16:55	Closing Federal Ministry of Education and Research
17:00	End of the event