

# Quantum Research and Education in Europe and in Ukraine PROGRAM

Wednesday, July 27, 2022

Time			SPEAKER	AFFILIATION	TALK TITLE
WEST UTC+1	CEST UTC+2	EEST UTC+3			
<i>Session 1</i>				<i>Moderator: Andrii Semenov</i>	
08:00	09:00	10:00	Opening		
08:15	09:15	10:15	Marcus Huber	TU Wien, Austria	Thermodynamic limits to measurements
08:40	09:40	10:40	Igor Dotsenko	Laboratoire Kastler Brossel, Collège de France, Paris, France	Quantum simulator on circular Rydberg atoms
09:05	10:05	11:05	Anatoliy Negriyko	Institute of Physics, NAS of Ukraine	Experimental researches on Quantum metrology in Institute of Physics NAS Ukraine
09:30      10:30      11:30      Coffee break					
09:45	10:45	11:45	Araceli Venegas-Gomez	QURECA Ltd., UK	Quantum Education Resources
10:10	11:10	12:10	Simon Goormey	Aarhus University, Denmark	Support for Ukraine from the Quantum Technology Education European community
10:35	11:35	12:35	Abuzer Yakaryilmaz	QWorld Association & University of Latvia	QWorld   Creating opportunities to join the second quantum revolution
11:00      12:00      13:00      Coffee break					
11:15	12:15	13:15	Khrystyna Gnatenko	Ivan Franko National University of Lviv, Ukraine	Educational program "Quantum computing and quantum programming" at the Ivan Franko National University of Lviv
11:40	12:40	13:40	Igor Dmitruk	Taras Shevchenko National University of Kyiv, Ukraine	Educational and research program "Quantum Computers, Computing, and Information" at the Taras Shevchenko National University of Kyiv
12:05      13:05      14:05      Lunch break					
<i>Session 2</i>				<i>Moderator: Alexander Kordyuk</i>	
13:00	14:00	15:00	Marco Bellini	Istituto Nazionale di Ottica - CNR, Italy	Photon-by-photon engineering of quantum light states
13:25	14:25	15:25	Radim Filip	Palacky University Olomouc, Czech Republic	Nonclassical and Quantum non-Gaussian States of Light and Matter: Fundamentals and Applications
13:50      14:50      15:50      Coffee break					
14:05	15:05	16:05	Andrii Semenov	Bogolyubov Institute for Theoretical Physics, NAS of Ukraine	Fundamental and applied issues in theoretical quantum optics
14:30	15:30	16:30	Armando Rastelli	Johannes Kepler University Linz, Austria	Semiconductor nanostructures for quantum science and technology
14:55      15:55      16:55      Coffee break					
15:10	16:10	17:10	Mehul Malik	Heriot-Watt University, Edinburgh, Scotland	High-Dimensional Quantum Photonics: Pushing the limits of Quantum Technologies
15:35	16:35	17:35	Andrii Sotnikov	Kharkiv Institute of Physics and Technology, NAS of Ukraine	Perspectives of ultracold atomic gasses as universal quantum simulators
16:00      17:00      18:00      Coffee break					
16:15	17:15	18:15	Leonid Yatsenko	Institute of Physics, NAS of Ukraine	Recent Quantum Optical Research at the Department of Coherent and Quantum Optics of the Institute of Physics of the National Academy of Sciences of Ukraine
16:40	17:40	18:40	Christian Marciniak	Universität Innsbruck, Austria	Quantum simulation, computation and communication with trapped ions in Innsbruck

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Thursday, July 28, 2022

Time			SPEAKER	AFFILIATION	TALK TITLE
WEST UTC+1	CEST UTC+2	EEST UTC+3			
<i>Session 3</i>				<i>Moderator: Sergey Shevchenko</i>	
08:00	09:00	10:00	Volodymyr Tkachuk	Ivan Franko National University of Lviv, Ukraine	Studies of properties of physical systems on IBM's quantum computer
08:25	09:25	10:25	Paweł Góra	University of Warsaw & Quantum AI Foundation, Poland	Solving Vehicle Routing Problem using Quantum Computing
08:50	09:50	10:50	Coffee break		
09:05	10:05	11:05	Danylo Yakymenko	Institute of Mathematics, NAS of Ukraine	Algebraic structures for quantum algorithms and protocols
09:30	10:30	11:30	Filip Maciejewski	Center for Theoretical Physics, Polish Academy of Sciences	Efficient learning and benchmarking of readout noise cross-talk models in near-term quantum devices
09:55	10:55	11:55	Coffee break		
10:10	11:10	12:10	Paolo Villorosi	University of Padova, Italy	Quantum Communications in Space
10:35	11:35	12:35	Robert Fickler	Tampere University, Finland	Quantum Photonics using Structured Photons
11:00	12:00	13:00	Andreas Trügler	Know-Center, University of Technology Graz, Austria	Merging quantum and classical cryptography
11:15	12:15	13:15	Lunch break		
<i>Session 4</i>				<i>Moderator: Leonid Yatsenko</i>	
12:00	13:00	14:00	Tommaso Calarco	Forschungszentrum Jülich, Germany	Building quantum technologies: from control to cooperation
12:35	13:35	14:35	Francesco Basso Basset	Sapienza University of Rome, Italy	Entangled photons from quantum dots, a resource for quantum communication
13:00	14:00	15:00	Coffee break		
13:15	14:15	15:15	Mario Ziman	Research Center for Quantum Information, Institute of Physics of Slovak Academy of Sciences	Quantum Technology research initiatives in Slovakia
13:40	14:40	15:40	Sergey Shevchenko	Verkin Institute for Low Temperature Physics and Engineering, Ukraine	Quantum Control via Landau-Zener-Stueckelberg-Majorana Transitions
14:05	15:05	16:05	Coffee break		
14:20	15:20	16:20	Vitaly Shumeiko	Chalmers University of Technology, Sweden	Wallenberg Centre for Quantum Technology at Chalmers
14:45	15:45	16:45	Alexander Kordyuk	Kyiv Academic University, Ukraine	Quantum research and education in Kyiv Academic University
15:10	16:10	17:10	Coffee break		
15:25	16:25	17:25	Volodymyr Shnyrkov	Kyiv Academic University, Ukraine	Superconducting qubits based electronics
15:50	16:50	17:50	Mikhail Belogolovskii	Kyiv Academic University, Ukraine	Novel superconducting devices for quantum sensors and metrology
16:15	17:15	18:15	Konstantin Lukin	O.Ya. Usikov Institute for Radiophysics and Electronics of National Academy of Sciences of Ukraine	Quantum Radar and Quantum Noise Radar
16:40	17:40	18:40	Closing		