

# Scientific Event In Lviv Dedicated To The World Quantum Day

**April 25, 2024**

The Reading Room of the Scientific Library of Ivan Franko National University of Lviv,  
located at 5 Drahomanov Street, Lviv, Ukraine

**15:00-15:30 Ceremonial opening**

**15:30-16:00 Karol Zyczkowski**, Institute of Theoretical Physics of the  
Jagiellonian University, Poland

Popular science presentation "A personal introduction to Quantum  
Information"

**16:00-16:30 Volodymyr Tkachuk**, Department for Theoretical Physics,  
Ivan Franko National University of Lviv, Ukraine

Popular science presentation "Quantum bits and Universe"

**16:30-17:00 Andriy Semenov**, Bogolyubov Institute for Theoretical  
Physics, Ukraine

Popular science presentation "Nobel Prize in Physics 2022: Is Reality  
Real?"

*17:00-17:30 Coffee break*

**17:30-18:00 Paweł Horodecki** International Centre for Theory of  
Quantum Technologies, University of Gdańsk, Faculty of Applied Physics  
and Mathematics, Gdańsk University of Technology

Scientific presentation "Unbounded quantum advantage. A novel instance  
with low number of inputs"

**18:00-18:30 Sylwia Kondej**, Institute of Physics, University of Zielona  
Góra, Poland

Science presentation TBA

**18:30-19:00 Krzysztof Pomorski**, Lodz University of Technology, Poland

Quantum entanglement and decoherence in system of electrostatically  
interacting semiconductor Wannier qubits

**19:00-19:30 Khrystyna Gnatenko**, Department for Theoretical Physics,  
Ivan Franko National University of Lviv, Ukraine

Popular science presentation "Practical usage of quantum computers.  
Quantum music"



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# April 26, 2024

The Mirror Hall of Ivan Franko National University of Lviv, located at 1 Universytetska Street, Lviv, Ukraine

**10:00-12:00 Panel discussion** The aim is to discuss the obtained results in the field of quantum information and their applications, achievement of the first Bachelor's educational program "Quantum computing and quantum programming" at the Ivan Franko National University of Lviv.

*Invited speakers*

**Volodymyr Melnyk**, Rector, Ivan Franko National University of Lviv, Ukraine

**Roman Gladyshevskii**, Vice-Rector for Research, Ivan Franko National University of Lviv, Ukraine

**Vitaliy Kuharskyi**, Vice-Rector for Research Teaching and Development, Ivan Franko National University of Lviv, Ukraine

**Catarina Bastos**, Deimos Engenharia, Portugal

Talk "Quantum communications applications for defense"

**Mike Richardson** OpTecBB, Germany

Talk "Quantum systems and defense"

**Oleksa Vozyak**, Lviv city council member, entrepreneur and ICT company founder

**Damy Hadiiev**, Science Practice Leader, R&D Team, SoftServe Inc.

**Volodymyr Tkachuk**, Garant of the Master's educational program "Quantum computers and quantum programming" at Ivan Franko National University of Lviv, Ukraine

**Khrystyna Gnatenko**, Garant of the Bachelor's educational program "Quantum computers and quantum programming" at Ivan Franko National University of Lviv, Ukraine

*To be added*

*12:00-12:30 Coffee break*

**12:30-13:00 Wieslaw Leonski**, Institute of Physics, University of Zielona Góra, Poland

Science presentation Can we transfer quantum correlations? - Some examples

**13:00-13:30 Karol Zyczkowski**, Institute of Theoretical Physics of the Jagiellonian University, Poland

Science presentation, "On 36 entangled officers of Euler"

**13:30-14:00 Andrii Sotnikov**, Karazin National University, Kharkiv, Ukraine

Science presentation "A need for quantum computing for strongly-correlated many-body systems"



*14:00-15:30 Lunch*

**15:30-16:00 Grzegorz Rajchel-Mieldzióć**, NASK National Research Institute, Warsaw, Poland

Science presentation “Certification for quantum metrology“

**16:00-16:30 Christopher Bishop**, Technical Fellow, Microsoft Research, Cambridge, U.K.

Popular science presentation “The secrets to working in quantum”

**16:30-17:00 Volodymyr Tkachuk**, Ivan Franko National University of Lviv, Ukraine

Science presentation TBA

**17:00-17:30 Andrij Semenov**, Bogolyubov Institute for Theoretical Physics, Ukraine

Science presentation "Noisy photon-number resolution: Nonclassicality criteria with realistic quantum devices”.

*17:30-18:00 Coffee break*

**18:00-18:30 Kyrylo Snizhko**, CEA Grenoble, France

Science presentation “Quantum Hall effect: quantum physics in our daily life and simple considerations for complex physics”

**18:30-19:00 Julian Rypalla**, Humboldt-Universität zu Berlin, Ivan Franko National University of Lviv, Ukraine

Science presentation "Spooky Action at a Distance": An experimental Quantum-Education lecture on Entanglement