



84<sup>th</sup> International Scientific  
Conference of the  
University of Latvia 2026



LATVIJAS  
UNIVERSITĀTE

## Kvantu zinātne un tehnoloģijas / Quantum Science and Technologies

Trešdiena, 2026. gada 15. aprīlī, plkst. 9.00  
501. telpa, Zinātnes mājā, Jelgavas ielā 3, Rīga

Wednesday, 15 April 2026, 9.00 a.m  
Room 501, House of Science, Jelgavas street 3, Riga

### Programma | Programme

8.45–9.00 Ierašanās | Arrival

#### Sesija 1 | Session 1

Vadītājs | Chair: Artūrs Mozers

9.00–9.20 **Prof. Andris Ambainis**  
University of Latvia  
Latvijas Universitāte

**New developments in quantum computing**

9.20–9.40 **Asoc. prof. Leo Trukšāns**  
University of Latvia  
Latvijas Universitāte

**Field Testing and Performance Evaluation of Quantum Key Distribution System**

9.40–10.00 **PhD Rihards Mūrnieks**  
Rīga Technical University  
Rīgas Tehniskā universitāte

**Entanglement Distribution Network for Quantum Internet Deployment in Latvia**

10.00–10.20 **PhD Andris Anspoks**  
Institute of Solid State  
Physics, UL  
LU Cietvielu fizikas institūts

**Technology and materials for quantum photonics**

10.20–10.40 **Prof. Abuzer Yakaryilmaz**  
University of Latvia  
Latvijas Universitāte

**Quantum Workforce Development**

10.40–11.00 **Kafijas pauze, diskusijas / Coffee break, discussions**

#### Sesija 2 | Session 2

Vadītājs | Chair: Andris Ambainis

11.00–11.15 **PhD Artūrs Mozers**  
University of Latvia  
Latvijas Universitāte

**Advances in the development of quantum technology for sensing**

11.15–11.30	<b>Asoc. prof. Aivars Vembris</b> Institute of Solid State Physics, UL LU Cietvielu fizikas institūts	Single photon emitters and its development in Latvia
11.30–11.45	<b>MSc. Agnese Spustaka</b> University of Latvia Latvijas Universitāte	Charge transport studies of CVD-grown h-BN/WTe <sub>2</sub> heterostructures
11.45–12.00	<b>MSc. Kristians Draguns</b> University of Latvia Latvijas Universitāte	Tantalum Pentoxide microring resonators
12.00–12.15	<b>BSc. Daniela Jermacāne</b> University of Latvia Latvijas Universitāte	Defeating the nonlinear Zeeman effect error in magnetometers with the hexadecapole moment
12.15–12.45	<b>Pusdienu pauze, diskusijas / Lunch break, discussions</b>	
	<b>Sesija 3   Session 3</b> Vadītājs   Chair: Vjačeslavs Kaščejevs	
12.45–13.00	<b>Asoc. prof. Sergejs Kozlovičs</b> University of Latvia Latvijas Universitāte	Random-Walk-Based Key Relaying in Dynamic Semi-Trusted QKD Networks
13.00–13.15	<b>PhD Maksims Dimitrijevs</b> University of Latvia Latvijas Universitāte	Running the First Quantum Computer in the Baltic States: Practical Experience with the SpinQ Triangulum 3-Qubit Quantum Computer
13.15–13.30	<b>MSc. Valts Krūmiņš</b> University of Latvia Latvijas Universitāte	Rydberg positronium spectroscopy at AEGIS collaboration
13.30–13.45	<b>Asoc. prof. Ģirts Barinovs</b> University of Latvia Latvijas Universitāte	Properties of Bound Electron-Pair States in a Two-Dimensional Electron Gas
13.45–14.00	<b>MSc. Jānis Užulis</b> University of Latvia Latvijas Universitāte	Defining new numerical standards in first-principles calculations
14.00–15.00	<b>Stenda referātu sesija   Poster Session</b>	