



WILHELM UND ELSE
HERAEUS-STIFTUNG



The BPU – WE Heraeus School

Frontiers in Quantum Science and Technology

Bucharest, July 4 – 8, 2025

Program / Topics

Friday, 04 July 2025

Arrival of participants/Accommodation

19:30 – 21:00 Dinner at Ambiance Hotel-Restaurant

Saturday, 05 July 2025

09:00-10:30 Jörg Schmalian, KIT Karlsruhe, Germany , “Quantum materials”

10:30-10:45 Discussion

10:45-11:15 Coffee Break

11:15-12:15 Marina Rotaru, NIPNE Magurele, Romania
“Quantum entanglement in high-energy physics”

12:15-12:30 Discussion

12:30-14:00 Lunch (“Politehnica” University)

14:00-15:30 Aurelian Isar, NIPNE Magurele, Romania, Entanglement and teleportation”

15:30-15:45 Discussion

15:45-16:15 Coffee Break

16:15-17:15 Luc Bergé, Centre Lasers Intenses et Applications, Bordeaux, France
“Laser-plasma interaction and quantum nonlinear optics”

17:15-17:30 Discussion

17:30-18:30 Poster highlights

18:30-19:30 Poster session

19:30-21:00 Dinner (“Ambiance” Hotel)

Sunday, 06 July 2025

09:00-10:30 Florian Marquardt, MPI-L Erlangen, Germany, “Machine Learning for Quantum Applications”

10:30-10:45 Discussion

10:45-11:15 Coffee Break

11:15-12:15 Petra Rudolf, Univ. Groningen, The Netherlands, “New materials for the Quantum age”

12:15-12:30 Discussion

12:30-14:00	Lunch ("Politehnica" University)
14:00-15:30	Christophe Rossel, IBM Research Europe – Zurich, Switzerland "The transition or revolution from classical to quantum computing"
15:30-15:45	Discussion
16:15-17:15	Radu Ioniciou, NIPNE Magurele, Romania, "Quantum Communication"
17:15-17:30	Discussion
17:30-18:30	Poster highlights
18:30-19:30	Open discussion/questions
19:30-21:00	Dinner ("Ambiance" Hotel)
21:00-22:30	Poster session

Monday, 07 July 2025

09:00-10:30	Tilman Pfau, U Stuttgart, Germany, "Ultra-cold quantum gases"
10:30-10:45	Discussion
10:45-11:15	Coffee Break
11:15-12:15	Calin Alexandru Ur, ELI-NP/IFIN-HH, Magurele "Nuclear physics driven by extreme light at ELI-NP"
12:15-12:30	Discussion
12:30-14:00	Lunch
14:00-19:30	Hands-on experiments/excursion to Magurele
19:30-21:00	Social Dinner ("Ambiance" Hotel)
21:00-22:30	Panel discussion

Tuesday, 08 July 2025

09:00-10:30	Fabian Wolf, PTB Braunschweig, Germany , "Quantum metrology"
10:30-10:45	Discussion
10:45-11:15	Coffee Break
11:15-12:15	George Zoupanos, Greece, "Quantum cosmology"
12:15-12:30	Discussion
12:30-13:00	Closing
13:00	Lunch ("Politehnica" University)