



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

Saturday, 05 July 2024

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	Petra Rudolf, Univ. Groningen, The Netherlands, “New materials for the quantum age”
12:15-12:30	Discussion
12:30-14:00	Lunch
14:00-15:30	Aurelian Isar, NIPNE Magurele, Romania, “Quantum Correlations”
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

Sunday, 06 July 2024

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	Marina Rotaru, NIPNE Magurele, Romania

	"Quantum entanglement in high-energy physics"
12:15-12:30	Discussion
12:30-14:00	Lunch
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
21:00-22:30	Poster session

Monday, 07 July 2024

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
21:00-22:30	Panel discussion

Tuesday, 08 July 2024

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	Mairi Sakellariadou, King's College, London, UK, "Quantum cosmology"
12:15-12:30	Discussion
12:30-13:00	Closing
13:00	Lunch