Workshop on Modern Trends in Quantum Theory

Monday, 23 May 2022 - Friday, 27 May 2022

Faculty of Nuclear Sciences and Physical Engineering

Scientific Programme

23 May (Monday)
[09:20-09:30] Opening
[09:30-10:30] Tamás Kiss: Iterated nonlinear quantum protocols: theory and practice
[10:30-11:00] Coffee break
[11:00-12:00] Horia Cornean: Generalized bulk-edge correspondance at positive temperature

[14:00-15:00] Saverio Pascazio: Dimensional Reduction of Gauge Theories and Quantum Simulations
[15:00-15:30] Coffee break
[15:30-16:30] Alain Joye: Fermionic walkers driven out of equilibrium

24 May (Tuesday)
[09:30-10:30] Paolo Facchi: KAM stability of quantum symmetries
[10:30-11:00] Coffee break
[11:00-12:00] Konstatin Pankrashkin: Geometric realizations of boundaries of infinite trees

[14:00-15:00] Gernot Alber: Quantum state preparation and dynamical symmetries: Coherent laser-induced preparation of multipartite W- and GHZ-quantum states and their interconversion.
[15:00-15:30] Coffee break
[15:30-16:30] Gregory Berkolaiko: Towards Morse theory of dispersion relations

25 May (Wednesday)
[09:30-10:30] Uzy Smilansky: Can one hear a real symmetric matrix?
[10:30-11:00] Coffee break
[11:00-12:00] Steve Barnett: Aspects of time in quantum mechanics

[14:00-15:00] Rafael Benguria: On the excess charge for bosonic atomic systems
[15:00-15:30] Coffee break
[15:30-] Poster session

26 May (Thursday)
[09:30-10:30] Zdeněk Hradil: Angle and angular momentum -- new twist for an old pair
[10:30-11:00] Coffee break
[11:00-12:00] Raffaele Carlone: A Ionization Model

[14:00-15:00] Janos Bergou: 100 years of complementarity
[15:00-15:30] Coffee break
[15:30-16:30] Mario Ziman: Divisibility of quantum processes and stroboscopic simulations of quantum dynamics

27 May (Friday)
[09:30-10:30] Wolfgang Schleich: The Riemann Zeta Function and Quantum Mechanics
[10:30-11:00] Coffee break
[11:00-12:00] Leszek Sirko: Application of quantum and microwave graphs in investigations of spectral invariants and non-Weyl systems

[14:00-15:00] Christine Silberhorn: Quantum optics and information science in multi-dimensional photonics networks