

Tentative program

Monday, 27.06

10:00-13:00 Reception of participants

13:00-14:00 Lunch

14:00-14:30 *Opening*

SESSION 1

Chairman, N. V. Zamfir, IFIN-HH

14:30-15:10 Francesco Iachello, Yale University

Quantum phase transitions in algebraic models of many-body systems

15:10-15:50 Jouni Suhonen, Univ. of Jyväskylä

Many-body methods for nuclear processes triggered by the interplay of strong and weak interactions

15:50-16:20 Coffee break

SESSION 2

Chairman, J. P. Pekola, Aalto University

16:20-17:00 S. M. Girvin, Yale University

Recent Progress in Strong-Coupling Circuit QED

17:00-17:20 Y. Zhao, Nanyang Technological University

An Improved Approach to Polaron Transport in Organic Molecular Crystals

17:20-17:40 Sorin Paraoanu, Aalto University

Quantum technologies and quantum computing: superconducting quantum bits as simulators of atoms interacting with fields

18:00-20:00 Welcome Party + Dinner

Tuesday, 28.06

SESSION 3

Chairman, F. Iachello, Yale University

9:00- 9:40 V. Baran, University of Bucharest

Kinetic approaches to phase transitions in strongly interacting matter

9:40-10:20 M. Mirea, IFIN-HH

Strong dissipation regime in nuclear disintegrations

10:20-10:40 V. Sargsyan, JINR Dubna

The quantum diffusion approach in reactions with heavy ions at sub-barrier energies

10:40-11:00 Coffee break

SESSION 4

Chairman, B. Altshuler, Columbia University

11:00-11:40 Y. Alhassid, Yale University

The coexistence of superconductivity and ferromagnetism in nano-scale metallic grains

11:40-12:20 P. Hakonen, Aalto University

Superconductivity in nanocarbons

12:20-12:40 B. Tanatar, Bilkent University

BCS-BEC crossover in density imbalanced electron-hole layers

12:40-14:00 Lunch break

SESSION 5

Chairman, S. Girvin, Yale University

14:00-14:40 B. Altshuler, Columbia University

Many-Body Anderson Localization

14:40-15:20 Y. Galperin, University of Oslo, Norway

Low-Frequency Noise as a Source of Non-Gaussian Decoherence in Qubits

15:20-15:40 A. Manolescu, School of Science and Engineering, Reykjavik University, Iceland

Generalized Master equation approach to mesoscopic time-dependent transport

15:40-16:40 Coffee break

SESSION 6

Chairman, J. Suhonen, Jyvaskyla University

15:40-16:20 R. Liotta, KTH Stockholm

Many-body processes in the continuum

16:20-16:40 D. S. Delion, IFIN-HH

Shell-model versus clustering: volume versus surface effects

16:40-17:00 C. Qi, KTH Stockholm

Competition of different coupling schemes in atomic nuclei

17:00-18:30 Posters session

18:30-19:00 Music (chorus of the Theology Department – Ovidius University)

19:00-20:00

Wednesday, 29.06

SESSION 7

Chairman, Roberto Liotta

9:00- 9:40 Peter Schuck, IPN Orsay, France

Superfluidity-kill at overflow of trapped fermions. Quantal and semiclassical studies

9:40-10:20 Mihai Horoi, Central Michigan University

The Emergence of Deformation in Nuclei and Atomic Cluster

10:20-10:40 Aleksander Andreev, JINR

Effect of fragment deformations on mass asymmetry of fission

10:40-11:00 Coffee break

SESSION 8

Chairman, Pertti Hakonen, Aalto University,

11:00-11:40 J. P. Pekola, Aalto University,

Andreev current and photon-assisted tunneling as error processes in a hybrid single-electron turnstile

11:40-12:20 V. Ciupina, Ovidius University,

Carbon nanostructures and applications

12:20-12:40 N. Dubinin, Institute of Metallurgy of the Ural Division of the Russian Academy of Sciences

Account of d-electron magnetic orbital interactions at describing the transition-metal pair potentials

12:40-13:40 Lunch

13:40-19:00 Excursion

19:00-20:00 Dinner

Thursday, 30.06

SESSION 9

Chairman, Y. Alhassid, Yale University

9:00- 9:40 J. Dukelsky, Instituto de Estructura de la Materia, CSIC

Integrable Richardson-Gaudin models in mesoscopic physics

9:40-10:00 Yu. A. Cherny, JINR

Some aspects of superfluidity in the one-dimensional Bose gas

10:00-10:20 R. Molina, Instituto de Estructura de la Materia, CSIC

Effects of strong correlations on the transmission phase through quantum dots

10:20-10:40 Coffee break

SESSION 10

Chairman, V. Ciupina, Ovidius University

10:40-11:20 A. Zaikin, Forschungszentrum Karlsruhe Institut für Nanotechnologie

Crossed Andreev Reflection

11:20-11:40 N. Enaki,

Cooperative nonlinear interaction of squeezed light with the system of two-level radiators

11:40-12:00 T. Rosca,

Cooperative interaction of n radiators with quantum cavity field

12:00-12:20 S. Colun, Institute of Applied Physics of Academy of Sciences of Moldova

Nonlinear effects in the theory of super-radiance and superconductivity

13:00-14:00 Lunch

SESSION 11

Chairman, M. Manninen, University of Jyvaskyla

14:00-14:40 M. Silanpaa, Aalto University

Electromechanical microwave amplification, and micromechanical resonator cooled down close to the motional ground state

14:40-15:00 Al. Aldea, National Institute of Materials Physics

Zero bias anomalies in the Kondo regime of single and double quantum dots

15:00-15:20 T. Cheche, University of Bucharest

Phonon Influence on Emission Spectra of Biexciton and Exciton Complexes in Semiconductor Quantum Dots

15:20-15:40 Coffee break

SESSION 12

Chairman, Peter Schuck, IPN Orsay

15:40-16:20 T. von Egidy, Technische Universität München

Statistical nuclear properties

16.20-16:40 A. Raduta, IFIN-HH

Statistical ensemble in-equivalence in star matter

16:40-18:30 Round table discussions

18:30-21:30 Conference dinner

Friday, 1.07

SESSION 13

Chairman, Y. Zhao, Nanyang Technological University

9:00- 9:40 T. Stanescu, West Virginia University

Majorana Fermions in Semiconductor Nanowires

9:40-10:00 C S Acatrinei, IFIN-HH

Quantum Physics with Generalized Commutation Relations

10:00-10:20 I. Ghiu, University of Bucharest

A new method of construction of mutually unbiased bases for two-qubit systems

10:20-10:40 Coffee break

SESSION 14

Chairman, N. Enache, Institute of Applied Physics of Academy of Sciences of Moldova

10:40-11:20 Matti Manninen, University of Jyväskylä

Localization of particles and vortices in quantum dots and cold atom clouds

11:20-12:00 M. H. Lee, Univ. of Georgia, USA

Dynamics of a finite system and transition to the thermodynamic limit

12:00-12:20 D. V. Anghel, IFIN-HH

Universal features in the thermodynamics and heat transport by particles of any statistics

12:00-13:00 Visit of the Microscopy Laboratory of the Ovidius University

13:00-14:00 Lunch

14:00-16:00 round table discussion

16:00 Closing of the conference

18:00 Dinner

Saturday, 2.07

8:30-9:00 Distribution of the cold meal

9:00-... Free program to visit Mamaia and the surroundings.