

Workshop Program

Sunday, July 24

- 18:00 Registration
- 19:00 Welcome banquet at the Cafeteria

Monday, July 25

- 08:50 - 09:00 Opening
Jan-Michael Rost
- 09:00 - 09:45 Giuseppe Vitiello
Links - Relating different physical systems through the common QFT formalism
- 09:45 - 10:30 Bernd Kuckert
Spin, statistics and reflections
- 10:30 - 11:00 Coffee break
- 11:00 - 11:45 Petr Jizba
Geometric background for thermal quantum field theories: field theorist viewpoint on horizons
- 11:45 - 12:30 Michael Knyazev
Soliton-like objects with damping and pumping
- 12:30 Lunch break
- 14:30 - 15:15 Marcus Ruser
The dynamical Casimir effect - A numerical approach
- 15:15 - 16:00 Mairi Sakellariadou
Aspects of Cosmic superstrings
- 16:15 - 16:30 Coffee break
- 16:30 - 17:30 quasim05 - Colloquium:
William Unruh
Dumb Holes
- 18:00 Dinner
- 19:30 - 20:15 Daniel Grumiller
Black Holes and Analogues in Two Dimensions
- open-end discussion session

Workshop Program

Tuesday, July 26

- 09:00 - 09:45 Uwe Dorner
Entangling ultracold atoms by a quantum phase transition
- 09:45 - 10:30 Bernard Barbara
Quantum spins dynamics and hysteresis
- 10:30 - 10:35 Group photo
- 10:35 - 11:00 Coffee break
- 11:00 - 11:45 Jakob Yngvason
Bose-Einstein Condensation as a Quantum Phase transition in an model of an optical lattice
- 11:45 - 12:30 Grigory Volovik
Momentum-space topology, anomaly and quantum phase transition
- 12:30 Lunch break
- 14:30 - 15:15 Frans R. Klinkhamer
Fermi point splitting and neutrino oscillations
- 15:15 - 16:00 Ralf Schützhold
Dynamical zero-temperature phase transitions and cosmic inflation/deflation
- 16:00- 16:30 Coffee break
- 16:30 - 17:15 Peter Skyba
Superfluid ^3He as a model system for cosmology from the experimental point of view
- 17:15 - 18:00 Yurii Dumin
Exit from the Cosmological Inflation as Simulated by the Experiments with Optical Lattices and Multi-Josephson-Junction Loops
- 18:00 Dinner
- open-end discussion session

Workshop Program

Wednesday, July 27

- 09:00 - 09:45 Thomas Philbin
Black Hole Lasers Revisited
- 09:45 - 10:30 Stefano Giovanazzi
Hawking Radiation in Sonic Black Holes
- 10:30 - 11:00 Coffee break
- 11:00 - 11:45 Carlos Pineda
Evolution of pairwise entanglement in a coupled n -body system
- 11:45 - 12:30 Nageswaran Rajendran
Second Law of thermodynamics and Quantum Quantum No-Cloning and No-Deleting Principles
- 12:30 Lunch break
- 14:30 - 15:15 Dimitri Vanpeteghem
Coherent Transport in Fermionic systems and Quantum Dynamical Entropy
- 15:15 - 16:00 Jeffrey Yepez
Quantum computation of nonlinear classical and quantum dynamics
- 16:00- 16:30 Coffee break
- 16:30 - 17:15 Diego Porras
Simulation of many-body physics with trapped ions
- 17:15 - 18:00 Sara Mostame
Quantum simulator for the nonlinear $O(N)$ sigma model
- 18:00 Dinner
- open-end discussion session

Workshop Program

Thursday, July 28

- 09:00 - 09:45 Craig Savage
Superradiant scattering from a hydrodynamic vortex
- 09:45 - 10:30 Michael Uhlmann
Aspects of Cosmic Inflation in Expanding Bose-Einstein Condensates
- 10:30 - 11:00 Coffee break
- 11:00 - 11:45 Uwe R. Fischer
Quantum back-reaction in Bose-Einstein condensates
- 11:45 - 12:30 Silke Weinfurter
Analogue space-times based on two-component BECs
- 12:30 - 13:00 workshop summary
- 13:00 Lunch break