

# Frontiers of Quantum and Mesoscopic Thermodynamics

14 - 20 July 2019, Prague, Czech Republic

Under the auspices of

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of the Parliament of the Czech Republic

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**Dominik Cardinal Duka OP**  
Archbishop of Prague



View of Prague (1830), etching

Vincenc Morstadt (1802-1875) and Carl August Richter (1770-1848)

## Topics

Non-equilibrium quantum phenomena  
Foundations of quantum physics  
Quantum measurement, entanglement and coherence  
Dissipation, dephasing, noise and decoherence  
Many body physics, quantum field theory  
Quantum statistical physics and thermodynamics  
Quantum optics, Quantum simulations

Physics of quantum information and computing  
Topological states of quantum matter, quantum phase transitions  
Macroscopic quantum behavior  
Cold atoms and molecules, Bose-Einstein condensates  
Mesoscopic, nano-electromechanical and nano-optical systems  
Biological systems, molecular motors and quantum biology  
Cosmology, gravitation and astrophysics

## Public lectures

**Wolfgang Ketterle** (Cambridge, MA)

**William Phillips** (Gaithersburg)

**Rainer Weiss** (Cambridge, MA)

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