

# Frontiers of Quantum and Mesoscopic Thermodynamics

27 July - 1 August 2015, Prague, Czech Republic

<http://fqmt.fzu.cz/15/>

Under the auspices of

**Ing. Miloš Zeman**

President of the Czech Republic

**Milan Štěch**

President of the Senate of the Parliament of the Czech Republic

**Prof. Ing. Jiří Drahoš, DrSc., dr. h. c.**

President of the Academy of Sciences of the Czech Republic

**Dominik Cardinal Duka OP**

Archbishop of Prague



View of Prague (19th century)

Anonymous engraving

## Topics

Foundations of quantum physics  
Quantum measurement, entanglement and coherence  
Quantum optics  
Quantum many body physics  
Non-equilibrium statistical physics  
Quantum thermodynamics  
Dissipation, dephasing, noise and decoherence

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

## Scientific Committee

Chair: Václav Špička (Prague)  
Co-Chair: Theo Nieuwenhuizen (Amsterdam)  
Alain Aspect (Palaiseau)  
Raymond Dean Astumian (Orono)  
Roger Balian (Saclay)  
Gordon Baym (Urbana)  
Dietrich Belitz (Eugene)  
Rainer Blatt (Innsbruck)  
Miles Blencowe (Hanover)  
Dirk Bouwmeester (Santa Barbara, Leiden)  
Amir Ordacgi Caldeira (Campinas)  
Raymond Chiao (Merced)  
Juan Ignacio Cirac (Garching)  
Claude Cohen-Tannoudji (Paris)  
Jean Dalibard (Paris)  
Pawel Danielewicz (East Lansing)  
Luiz Davidovich (Rio de Janeiro)

Michel H. Devoret (New Haven)  
Daniel Esteve (Saclay)  
Peter Hänggi (Augsburg)  
Serge Haroche (Paris)  
Dudley Herschbach (Cambridge, MA)  
Gregg Jaeger (Boston University)  
Andrei Khrennikov (Växjö)  
Hagen Kleinert (Berlin)  
Peter Knight (London)  
Norbert Kroo (Budapest)  
Pavel Kroupa (Bonn)  
Franck Laloë (Paris)  
David Lee (College Station)  
Anthony J. Leggett (Urbana)  
Igor Lerner (Birmingham)  
Heiner Linke (Lund)  
Reinhard Lipowsky (Potsdam)

Daniel Loss (Basel)  
Angus MacKinnon (London)  
Henri Orland (Saclay)  
Giorgio Parisi (Roma)  
Martin Plenio (Ulm, London)  
Jean Michel Raimond (Paris)  
Christophe Salomon (Paris)  
Rudy Schild (Cambridge)  
Wolfgang Schleich (Ulm)  
Marlan Scully (College Station)  
Georgiy Shlyapnikov (Amsterdam)  
Gerard 't Hooft (Utrecht)  
Jan van Ruitenbeek (Leiden)  
Vlatko Vedral (Oxford)  
Frank Wilczek (Cambridge, MA)  
Anton Zeilinger (Vienna)  
Peter Zoller (Innsbruck)

## Organizing Committee

Chair: Václav Špička (Prague)  
Jiří Bok (Prague)  
Howard Brubaker (Detroit)  
Pavla Bušová (Prague)  
Barbora Chudíčková (Prague)  
Soňa Fialová (Prague)  
Etienne Hofstetter (London)

Pavel Hubík (Prague)  
Peter D. Keefe (Detroit)  
Souheil Khaddaj (London)  
Zdeněk Kožíšek (Prague)  
Ján Krajník (Prague)  
Josef Kšica (Prague)  
Karla Kuldová (Prague)

Jiří J. Mareš (Prague)  
Theo M. Nieuwenhuizen (Amsterdam)  
Claudia Pombo (Amsterdam)  
Jaroslav Šesták (Prague)  
Jarmila Šidáková (Prague)  
Marie Svobodová (Prague)  
Yuval Waldman (New York)