Monday, June 22

8.00-10.00 Registration (Corridor)

10.00-10.30 Conference opening
J. Peřina
Y. S. Kim
M. Dorazilová (violoncello)

M.C.Teich

10.45-11.30 G. Rempe (invited)
Quantum optics with ultracold molecules

11.30-12.00 N. Gisin (invited)
Space, time and quantum nonlocality

12.00-12.30 R. W. Boyd (invited)
Controlling the speed of light for applications in quantum information science

12.30-14.00 Lunch *(Atrium)*

12.30-14.00 Lunch *(Atrium)*

A. Andreoni

14.00-14.30 L. Lugiato (invited)
Some topics in quantum imaging

14.30-15.00 M. C. Teich (invited)
Multi-photon and entangled-photon imaging and lithography

15.00-15.30 A. Gatti (invited)
X-entanglement: the non-factorable spatio-temporal structure of biphoton correlation

14.00-14.30 V. Scarani (invited)
Quanta in a black-box

14.30-15.00 A. Acin (invited)
Quantum correlations and device-independent quantum information protocols

15.00-15.30 Y. S. Kim (invited)
Feynman and squeezed states

N. J. Cerf

15.30-16.00 Coffee break

15.30-16.00 Coffee break

A. Retzker

16.00-16.30 J. Eisert (invited)
Heralded preparation and distillation of entangled light

16.30-16.50 L. Mazzola
Exact dynamics of entanglement and entropy in structured environments

16.50-17.10 M. J. Everitt
Persistent entanglement of two coupled SQUID rings in the quantum to classical transition

17.10-17.30 D. Cavalcanti
Open-system dynamics of graph-state entanglement

17.30-17.50 M. Martinelli
Extra phase noise from phonon scattering degrades quantum correlations in nonlinear systems

16.00-16.20 N. Brunner
Emergence of quantum correlations from non-locality swapping

16.20-16.40 D. Sych
Quantum uniqueness

16.40-17.00 L. Skála
Heisenberg uncertainty relations can be replaced by stronger ones

17.00-17.20 P. Blasiak
Combinatorics of creation-annihilation

17.20-17.40 V. I. Man'ko
Experimental possibilities in view of the probability representation of quantum mechanics and quantum optics

M. Ziman

19.00-22.00 Welcome Reception *(Atrium)*
Lidová muzika FRGÁL (traditionals)

Tuesday, June 23

L. Lugiato

9.00-9.30 M. Hendrych (invited)
Shaping the spectrum of entangled photons

9.30-10.00 A. Andreoni (invited)
Photon statistics in the macroscopic realm: methods to beat the lack of photon-counters

10.00-10.30 H. Coldenstrodt-Ronge (invited)
The photon and the vacuum cleaner

10.30-11.00 Coffee break

11.00-11.20 F. Sciarrino
Quantum manipulation of orbital angular momentum photonic states by coherent coupling with polarization

K. Banaszek

11.20-11.40 T. B. Pittman
Experimental work on entangled photon holes

11.40-12.00 M. Ostermeyer
Quantum interference of a biphoton at a blazed grating

12.00-12.20 G. Vallone
Multi-path entanglement of two photons

12.20-12.40 R. Migliore
Non-classical correlations of two interacting qubits coupled to independent reservoirs

12.40-14.00 Lunch *(Atrium)*

H. Matsueda

14.00-14.30 E. Polzik (invited)
Quantum memory for light

14.30-14.50 T. Juffmann
Wave-particle duality of large molecules revealed

14.50-15.10 A. Wojciechowski
Nonlinear Faraday effect with cold atoms

15.10-15.30 A. Cere
Narrowband filter for quantum light

15.30-16.00 Coffee break

N. Gisin

16.00-16.20 M. Koschorreck
Ultra-sensitive spin-measurements below the standard quantum limit

16.20-16.40 I. Kominis
Spin-squeezed atomic vapors: Is there any gain or not?

16.40-17.00 G. Toth
Generation of macroscopic singlet states in atomic ensembles

17.00-17.20 S. Machnes
Super-fast cooling of trapped particles

17.20-17.40 C. J. Villas-Bôas
Nonadiabatic coherent evolution of two-level systems under spontaneous decay

18.00-20.30 Poster session *(Corridor)*
(local wines)

20.30-21.30 Piano recital *(Convict Chapel)*, M. Keprt

A. Vourdas

9.00-9.20 P. Nussenzveig
Experimental three-color continuous-variable entanglement

9.20-9.40 T. Kiesel
Application of nonclassicality criteria to experiments

9.40-10.00 A. A. Semenov
Propagation of quantum light through the turbulent atmosphere

10.00-10.20 Y. L. Chuang
Conditions to preserve quantum entanglement of quadrature fluctuation fields in electromagnetically induced transparency media

10.30-11.00 Coffee break

V. Scarani

11.00-11.30 R. Renner (invited)
Postselection as a tool in quantum information

11.30-12.00 M. Ziman (invited)
Process POVM: A mathematical framework for description of quantum process experiments

12.00-12.30 M. Wolf (invited)
Measurements incompatible in Quantum Theory cannot be measured jointly in any other local theory

12.30-14.00 Lunch *(Atrium)*

J. Fiurášek

14.00-14.20 D. Elser
Continuous-varibale quantum key distribution in fibers and free space

14.20-14.40 A. Leverrier
Unconditionally secure protocol for long-distance continuous-variable QKD with discrete modulation

14.40-15.00 N. J. Cerf
Continuous-variable quantum error correction: possibilities and impossibilities

15.00-15.20 S. Kak
The transactional nature of quantum information

15.30-16.00 Coffee break

R. W. Boyd

16.00-16.20 H. Matsueda
Dynamic entanglement and separability criteria for quantum computing bit states

16.20-16.40 G. Gilbert
Volume thresholds for fault tolerance

16.40-17.00 D. Sych
Practical coherent state quantum key distribution with multi-letter alphabets

17.00-17.20 N.C. Menicucci
One-way quantum computation in the optical frequency comb

17.20-17.40 J. Minář
Solid-state quantum memory for photons at telecommunication wavelength

Wednesday, June 24

A. Gatti

9.00-9.30 M. Genovese (invited)
PDC correlations for quantum imaging

9.30-10.00 A. Politi (invited)
Quantum information science with photons on a chip

10.00-10.30 K. Banaszek (invited)
Characterization of non-classical light sources for quantum information technologies

10.30-11.00 Coffee break

T. B. Pittman

11.00-11.20 Ch. Marquardt
Experimental entanglement distillation of mesoscopic quantum states

11.20-11.40 M. Ostermeyer
Quantum interference of a biphoton at a blazed grating

11.40-12.00 A. S. Chirkin
Four-partite CV entangled states in aperiodical nonlinear photonic crystal

12.00-12.20 I. Rigas
Full quantum tomography of twisted photons

12.20-12.40 S. S. Mizrahi
Separability and entanglement: what symmetries and geometry can say

12.40-14.00 Lunch *(Atrium)*

14.00-17.00 Excursion
Archbishop's palace
Olomouc historical center
Archdiocesan Museum

18.00-19.00 Organ concert
St. Moritz cathedral
V. Michálek

19.00-22.00 Banquet *(Atrium)*
Music: L.I.F.
(popular songs)

A. Khrennikov

9.00-9.30 A. Vourdas
Quantum systems with finite Hilbert space

9.30-9.50 P. Aniello
Quantum mechanics on phase space and star products: a group-theoretical approach

9.50-10.10 M. A. Man'ko
Quantum inequalities for tomographic entropies of qudit states

10.10-10.30 S. Chaturvedi
Wigner distributions for finite even dimensional systems without doubling

10.30-11.00 Coffee break

E. Polzik

11.00-11.30 G. Leuchs (invited)
The geometrical properties of entangled states

11.30-11.50 M. Bellini
Experimental proof of commutation rules by superpositions of quantum operators

11.50-12.10 T. C. Ralph
Noiseless linear amplification

12.10-12.30 A. Aiello
Geometric spin Hall effect of light

12.30-14.00 Lunch *(Atrium)*

Thursday, June 25

Auditorium

G. Leuchs

9.00-9.30 W. Vogel (invited)
Continuous-variable entanglement

9.30-10.00 B. Hage (invited)
Preparation of distilled and purified continuous-variable entangled states

10.00-10.30 N. J. Cerf (invited)
Unraveling the convex set of non-Gaussian mixed quantum states that are characterized by a classical probability distribution in phase space

10.30-11.00 Coffee break

M. Bellini

11.00-11.20 H. Takahashi
Distillation of continuous variable entanglement from Gaussian states

11.20-11.40 M. Lassen
Continuous variables quantum erasure-correcting code

11.40-12.00 R. Wagner
Universal continuous variable quantum computation in the micromaser

12.00.12.20 A. Ferraro
Tests of multimode quantum non-locality with homodyne measurements

12.30-14.00 Lunch *(Atrium)*

C. J. Villas-Boas

14.00-14.30 A. Retzker (invited)
Robust and optimal laser cooling of trapped ions.

14.30-14.50 M. Stobinska
Single-photon single-ion interaction in free space configuration in front of a parabollic mirror

14.50-15.10 J. A. Crosse
Quantum electrodynamics in absorbing nonlinear media

15.10-15.30 A. V. Glushkov
Atomic and nuclear optics with manifestation of stochastic behaviour and photon-correlation effects

15.30-16.00 Coffee break

T. C. Ralph

16.00-16.20 A. Samblowski
Towards Einstein-Podolsky-Rosen quantum channel multiplexing

16.20-16.40 P. Marian
Consistent entanglement measures for two-mode Gaussian states

16.40-17.00 A. Porzio
Characterization of bipartite states: From theory to experiment

17.00-19.30 Poster session *(Corridor)*
(local wines)

Lectorium

L. Skála

9.00-9.20 A. Dragan
Emergence of quantum indeterminacy from special relativity

9.20-9.40 G. H. E. Duchamp
Deformation of Hopf algebras and pseudo-Feynman diagrams

9.40-10.00 A. Khrennikov
Quantum mechanics from classical mechanics with Hilbert phase space

10.00-10.20 T. F. Kamalov
Model of extended Newtonian dynamics and Feynman's path integrals

10.30-11.00 Coffee break

M. Wolf

11.00-11.20 D. Reitzner
Scattering-quantum-walk searches on highly symmetric graphs

11.20-11.40 Ch. Gabriel
Quantum random number generator using homodyne detection

11.40-12.00 F. Caruso
Noise-assisted transport in biological quantum networks

12.00-12.20 E. Karpov
Parallel bosonic Gaussian additive noise channels with a total input energy constraint.

12.30-14.00 Lunch *(Atrium)*

W. Vogel

14.00-14.20 J. Di Guglielmo
Bayesian reconstruction of quantum states: a Markov chain Monte Carlo approach

14.20-14.40 H. M. Wiseman
Heisenberg-limited interferometry - how easy can it get?

14.40-15.00 R. Munoz-Tapia
Phase estimation with Gaussian states

15.00-15.20 S. Olivares
Bayesian noisy phase estimation in qubit systems: from theory to experiment

15.30-16.00 Coffee break

B. Hage

16.00-16.20 A. Feito
Detector tomography

16.20-16.40 Ch. Wittman
Near-optimal state discrimination of optical coherent states

16.40-17.00 A. Isar
Continuous variable entanglement in open quantum systems

Friday, June 26

J. Peřina

9.00-9.30 H. Weinfurter (invited)
Multiphoton entanglement - tools and toys

9.30-10.00 H. Matsueda (invited)
Quantum dot realization of quantum information processing

10.00-10.50 A. Zeilinger (invited)
Long-distance quantum entanglement experiments

10.50-11.20 Coffee break

A. Acín

11.20-11.40 A. B. Klimov
Coherent and squeezed states for discrete systems

11.40-12.00 J. H. Samson
Wigner functions and path integrals

12.00-12.20 B. Bellomo
Extraction of a squeezed state in a field mode via repeated measurements on an auxiliary quantum particle

12.20-12.40 K. Zhang
Investigation of continous-wave squeezed state at a telecommunication wavelength

13.00-14.00 Lunch *(Atrium)*

V. I. Man'ko

11.20-11.40 J. Ashmead
Quantum time

11.40-12.00 J. Dunningham
Nonlocality of a single particle

12.00-12.20 C. Parmeggiani
Events and probabilities in quantum theories

12.20-12.40 Y. Shikano
Weak values with decoherence

12.40-13.00 V. Dvoeglazov
P, C and T for trully neutral particles

13.00-14.00 Lunch *(Atrium)*