Sunday, September 23

17:00–20:00	Registration at MPI PKS Room 2 A 5
19:00–21:00	Welcome Dinner at MPI PKS

Monday, September 24

Time	Seminar Room 1-3
08:45–09:00	**Peter Fulde** (Director of MPI PKS): *Conference Opening*
	Quantum Physics (Chair: Viruhl Sa-yakanit)
09:00–09:30	**Cécile DeWitt-Morette:** *An appetizer, a sampler of main courses*
09:30–10:00	**Fritz Haake:** *Bunched periodic orbits: the skeleton of classical and quantum chaos*
10:00–10:30	**Akira Inomata:** *Path integration in the field of a topological defect: the case of disclination*
10:30–11:00	Coffee Break
	Quantum Field Theory (Chair: Andrey A. Slavnov)
11:00–11:30	**Roman W. Jackiw:** *Topology and fractional charge: where to find it in a functional integral*
11:30–12:00	**Hagen Kleinert:** *Multivalued fields in statistical mechanics, electrodynamics, and gravitation*
12:00–12:30	**Garii V. Efimov:** *Gaussian equivalent representation of path integrals over a Gaussian measure*
12:30–14:30	Lunch
	Neutron Stars and Posters (Chair: Hajo Leschke)
14:30–15:00	**Remo Ruffini:** *The role of Thomas-Fermi approach in neutron stars*
15:00–16:00	*Short oral poster presentations*
16:00–16:30	Coffee Break
16:30–18:00	*Poster session*
18:00–20:00	Dinner
20:00–22:00	*Poster session*

Tuesday, September 25

Time	Seminar Room 1-3
	Statistical Field Theory (Chair: Reinhard Folk)
09:00–09:30	**Jean Zinn-Justin:** *Path and field integrals in physics: the main achievements*
09:30–10:00	**Volker Dohm:** *Nonuniversal finite-size effects near critical points*
10:00–10:30	**Yurij Holovatch:** *Entropy-induced separation of star polymers in porous medium*
10:30–11:00	Coffee Break
	Monte Carlo Techniques (Chair: Peter Nielaba)
11:00–11:30	**David Chandler:** *Sampling trajectory space and finding order-disorder transitions in constrained dynamical systems*
11:30–12:00	**David M. Ceperley:** *Imaginary time path-integral calculations of supersolid helium*
12:00–12:30	**Masuo Suzuki:** *Quantum analysis and systematics of operator product formulas*
12:30–14:30	Lunch

	Seminar Room 1-3	Seminar Room 1 D 1
	Quantum Physics I (Chair: Fritz Haake)	**Quantum Monte Carlo** (Chair: David M. Ceperley)
14:30–14:50	**Hajo Leschke:** *Diamagnetic monotonicities, Lifshitz tails, and anisotopic transport in a random magnetic field*	**Peter Nielaba:** *Phase transitions and quantum effects in model colloids and nanostructures*
14:50–15:10	**Virulh Sa-yakanit:** *Path integral derivation of Lifshitz tails*	**Alessandro Cuccoli:** *Thermodynamics of quantum 2D Heisenberg magnets with intermediate spin*
15:10–15:30	**Ludwig Streit:** *Feynman integrals as generalized functions on path space: things done and open problems*	**Heiko Rieger:** *Continuous time cluster algorithm for the spin-boson model*
15:30–15:45	**Antun Balaž** *Accelerated path integral calculations via effective actions*	**Günter Wunner:** *Quantum Monte Carlo studies of the ground states of heavy atoms in neutron star magnetic fields*
15:45–16:00	**Alexei Vagov:** *Real time path integrals in studies of quantum dots dynamics: non-monotonous relaxation time and reappearance of Rabi rotations*	**Victor Martin-Mayor:** *Microcanonical method for the study of first order transitions*
16:00–16:30	Coffee Break	

Tuesday, September 25

Time	Seminar Room 1-3	Seminar Room 1 D 1
	Quantum Physics II (Chair: Akira Inomata)	**Statistical Field Theory** (Chair: Jean Zinn-Justin)
16:30–16:50	**Kazuo Fujikawa:** *Geometric phase and chiral anomaly in path integral formulation*	**Reinhard Folk:** *Time scale ratios and critical dynamics*
16:50–17:10	**Naoto Kumano-go:** *Phase space path integrals and their semiclassical approximations*	**Malte Henkel:** *Local scale-invariance in ageing phenomena*
17:10–17:30	**Daniel Grumiller:** *Breakdown and restoration of classical approximation in black hole path integrals*	**Roland Rosenfelder:** *Perturbative results without diagrams*
17:30–17:45	**Sebastian Müller:** *Periodic-orbit theory of universal spectral statistics*	**Franco Ferrari:** *Generalized nonlinear sigma models and path-integral approach to polymer dynamics*
17:45–18:00	**Sami I. Muslih:** *Integrability and path integral quantization of constrained systems*	**Lev Plimak:** *Causal signal transmission by interacting quantum fields*
18:00–20:00	Dinner	

Wednesday, September 26

Time	Seminar Room 1-3	
	Condensed Matter I (Chair: Ray Rivers)	
09:00–09:30	**Jozef T. Devreese:** *Path integral description of Cooper pairing in imbalanced gases*	
09:30–10:00	**Hans-Peter Büchler:** *Strong correlations with cold polar molecules*	
10:00–10:30	**Robert Graham:** *Functional integral approach to disordered bosons in traps*	
10:30–11:00	Group Photo and Coffee Break	
	Seminar Room 1-3	**Seminar Room 1 D 1**
	Condensed Matter (BEC) (Chair: Robert Graham)	**Quantum Field Theory (QCD)** (Chair: Roman W. Jackiw)
11:00–11:20	**Ray Rivers:** *Dispersion relations for the BEC/BCS crossover*	**Andrey A. Slavnov:** *Path integral inspired gauge invariant infrared regularization*
11:20–11:40	**Klaus Ziegler:** *Functional integrals in many-body systems: application to atomic mixtures*	**John Gracey:** *Recent results for Yang-Mills theory restricted to the Gribov region*
11:40–12:00	**Flavio S. Nogueira:** *Large N theory of interacting Bose systems*	**Frank Lee:** *Path integrals in lattice quantum chromodynamics*
12:00–12:15	**Konstantin Glaum:** *Calculation in canonical ensembles for weakly interacting dipolar gases*	**Gurjav Ganbold:** *Mass spectra of the light and heavy mesons and the glueball*
12:15–12:30	**Evgeny Kochetov:** *Low-energy effective representation of the strong-pairing Gutzwiller-projected BCS Hamiltonian*	
12:30–14:00	Lunch	
14:00–19:00	Excursion	
	The "Elbe boat" talk (Chair: Lawrence S. Schulman)	
16:00–16:30	**Martin C. Gutzwiller:** *Quo vadis physica?*	
19:00–23:00	Conference Dinner (Fortress Königstein)	

Thursday, September 27

Time	Seminar Room 1-3
	Condensed Matter II (Chair: Martin Zirnbauer)
09:00–09:30	**Reinhold Egger:** *Interaction effects in quantum wires*
09:30–10:00	**Fons Brosens:** *Answers and questions on path integrals for superconductivity in a wedge*
10:00–10:30	**Ruggero Vaia:** *Environmental effects on the thermodynamics of quantum spin systems*
10:30–11:00	Coffee Break
	Quantum Gravity (Chair: Zbigniew Haba)
11:00–11:30	**Jan Ambjørn:** *Monte Carlo simulations of the quantum universe*
11:30–12:00	**Claus Kiefer:** *Path integrals in quantum gravity – general concepts and recent developments*
12:00–12:30	**John R. Klauder:** *Functional integrals for affine quantum gravity*
12:30–14:30	Lunch

	Seminar Room 1-3	Seminar Room 1 D 1
	Quantum Gravity (Chair: John R. Klauder)	**Spin Models** (Chair: Ruggero Vaia)
14:30–14:50	**Zbigniew Haba:** *Quantum fields near the horizon and at the singularity*	**Boris N. Shalaev:** *The critical behavior of the random Ising ferromagnets*
14:50–15:10	**Remo Garattini:** *A variational approach to the computation of the cosmological constant*	**Andrei A. Fedorenko:** *A functional renormalization group approach to systems with long-range correlated disorder*
15:10–15:30	**Ahmed Jellal:** *Effective Wess-Zumino-Witten action for edge states of quantum hall systems on Bergman ball*	**Elmar Bittner:** *Vortex-line percolation in a three-dimensional complex $\|\psi\|^4$ theory*
15:30–15:45	**Ciprian S. Acatrinei:** *An effective Lagrangian for non-commutative mechanics*	**Cyril Malyshev:** *Functional integration, spin correlation functions of the Heisenberg chain, and random walks*
15:45–16:00	**Christoph Dehne:** *On the path integral in non-commutative QFT*	**Giuliano Niccoli:** *Phase diagram analysis of the fully frustrated XY model within a twisted conformal field theory approach*
16:00–16:30	Coffee Break	

Thursday, September 27

Time	Seminar Room 1-3	Seminar Room 1 D 1
	Quantum Field Theory (Chair: Hagen Kleinert)	**Stochastics** (Chair: David R. Nelson)
16:30–16:50	**Kay Jörg Wiese:** *How to measure the effective potential for disordered systems*	**Zdzisław Burda:** *Correlated random paths, random matrices, and risk management*
16:50–17:10	**Boris Kastening:** *Critical Casimir force scaling function of the mean spherical model in $2 < d \leq 3$ dimensions for nonperiodic boundary conditions*	**Petr Jizba:** *Perturbation expansion for option pricing with stochastic volatility*
17:10–17:25	**Zoryana Usatenko:** *Segmental order of flexible polymer chains in good solvent*	**Dirk Homeier:** *Path integral formulation of stochastic differential equations*
17:25–17:40	**József Lörinczi:** *Rigorous functional integration with applications to Nelson's and the Pauli-Fierz model*	**Marcos G. E. da Luz:** *A sum of paths treatment to quantum graphs and quantum random walks*
18:00–20:00	Dinner	
	Seminar Room 1-3	
	Quo Vadis Path Integrals: New Trends and Perspectives (Chair: Cécile DeWitt-Morette)	
20:00–20:30	**Tilman Sauer:** *Remarks on the origins of path integration: Einstein and Feynman*	
20:30–22:00	*Round table discussion*	

Friday, September 28

Time	Seminar Room 1-3	
	Biophysics (Chair: Klaus Kroy)	
09:00–09:30	**Erwin Frey:** *Conformations of semiflexible polymers*	
09:30–10:00	**Adriaan M. J. Schakel:** *Spacetime approach to phase transitions*	
10:00–10:30	**David R. Nelson:** *Neutral mutations, path integrals, and gene surfing in microorganisms*	
10:30–11:00	Coffee Break	
	Seminar Room 1-3	**Seminar Room 1 D 1**
	Biophysics (Chair: Erwin Frey)	**Applied Quantum Field Theory** (Chair: Jozef T. Devreese)
11:00–11:20	**Klaus Kroy:** *Wormlike chains in disordered and glassy environments*	**Sigmund Kohler:** *The dissipative Landau-Zener problem*
11:20–11:40	**Vladimir V. Nesterenko:** *Path integral for helical protein chains*	**Vladimir N. Plechko:** *Grassmann variables and Ising model*
11:40–12:00	**Michael Bachmann:** *Statistical conformation mechanics of protein folding, aggregation, and adsorption transitions*	**Martin Zirnbauer:** *Granular bosonization*
12:00–12:15	**Christopher C. Bernido:** *Investigations of biopolymer configurations using the path integral method*	**Jürgen Dietel:** *Phase diagram of vortex lattices in high T_c superconductors*
12:15–12:30	**Semjon Stepanow:** *Drift of a polymer in a solvent pulled by a force applied at one polymer end*	**Ignat V. Fialkovsky:** *QFT systems with 2d spatial defects by means of path integral*
12:30–14:30	Lunch	
	Seminar Room 1-3	
	Condensed Matter III (Chair: Martin C. Gutzwiller)	
14:30–15:00	**Hermann Grabert:** *Decay of metastable systems driven by non-Gaussian noise*	
15:00–15:30	**Ulrich Weiß:** *Full counting statistics in dissipative quantum transport: recent achievements*	
15:30–16:00	**Lawrence S. Schulman:** *What does operator ordering have to do with the density of paths?*	
16:30–16:30	Coffee Break	
18:00–19:30	Dinner	