

**The 9th international microconference
Analytic and algebraic methods in physics**

(December 12 - 15, 2011, Villa Lanna, Prague)

the overall concept of the timetable and programme

Monday, December 12, 2011	
any time	ARRIVALS and registration
12:30 - 14:00	LUNCH
14:00 - 14:05	OPENING
14:05 - 17:00	afternoon TALKS
Tuesday, December 13, 2011	
9:30 - 17:00	the TALKS (+ LUNCH)
Wednesday, December 14, 2011	
9:30 - 17:00	the TALKS (+ LUNCH)
Thursday, December 15, 2011	
9:30 - 12:30	morning TALKS
LUNCH and DEPARTURES	

THE LIST OF TALKS

December 12: Monday

Afternoon programme

14:00	OPENING
session I: THEORETICAL PHYSICS chair: Uwe Günther	
14:05 - 14:40	M. Howard Lee (Athens, USA) <i>Dynamics of a harmonic oscillator chain of finite length and the thermodynamic limit</i>
14:45 - 15:20	Frederik G. Scholtz (Stellenbosch) <i>Geometrical Representations of Lie Algebras</i>
15:25 - 15:40	coffee break
session II: EFFECT ALGEBRAS chair: Silvia Pulmannová	
15:40 - 16:15	Zdena Riečanová (Bratislava) <i>The set of positive linear operators densely defined in an infinite-dimensional complex Hilbert space</i>
16:20 - 16:55	Martin Kalina (Bratislava) <i>Atomic lattices equipped with several effect-algebraic operations</i>
17:00	THE END OF THE FIRST DAY

THE LIST OF TALKS

December 13: Tuesday

morning programme	
session III: MATHEMATICAL PHYSICS chair: M. Howard Lee	
9:30 - 10:05	Maurice Kibler (Lyon) <i>Coherent states for a generalized Weyl-Heisenberg algebra</i>
10:10 - 10:45	Sergii Kuzhel (Cracow) <i>On scattering theory for PT-symmetric operators</i>
10:50 - 11:10	coffee break
session IV: THEORETICAL PHYSICS chair: Frederik G. Scholtz	
11:10 - 11:45	Petr Jizba (Prague & Berlin) <i>The emergence of Special and Doubly Special Relativity</i>
11:50 - 12:25	Daniel W. Hook (London) <i>Exploring Isospectral Hamiltonians</i>
12:30 - 14:00	LUNCH

Afternoon programme

session V: QUANTUM PHYSICS	
chair: Ingrid Rotter	
14:00 - 14:35	Matthias Liertzer (Vienna) <i>Scattering and lasing in coupled systems with gain and loss</i>
14:40 - 15:15	Giuseppe Luca Celardo (Brescia) <i>Superradiance transition in quantum transport</i>
15:20 - 15:40	coffee break
session VI: QUANTUM PHYSICS	
chair: Günter Wunner	
15:40 - 16:15	Ingrid Rotter (Dresden) <i>Dynamical phase transitions below particle emission thresholds</i>
16:20 - 16:55	Eva-Maria Graefe (London) <i>Quantum signatures of three coalescing eigenfunctions</i>
17:00	THE END OF THE SECOND DAY

THE LIST OF TALKS

December 14: Wednesday

morning programme	
session VII: THEORETICAL PHYSICS chair: Anatoly Nikitin	
9:30 - 10:05	Günter Wunner (Stuttgart) <i>Investigation of PT symmetry in Bose-Einstein condensates</i>
10:10 - 10:45	Jiří Lipovský (Řež) <i>Resonances on quantum graphs and hedgehog manifolds</i>
10:50 - 11:10	coffee break
session VIII: THEORETICAL PHYSICS chair: Sergey Kuzhel	
11:10 - 11:45	Uwe Günther (Dresden) <i>PTQM brachistochrone revisited</i>
11:50 - 12:25	Dorje Brody (London) <i>Information geometry of density matrices and state estimation</i>
12:30 - 14:00	LUNCH

Afternoon programme

session IX: EFFECT ALGEBRAS	
chair: Zdena Riečanová	
14:00 - 14:35	Jan Paseka (Brno) <i>Triple Representation Theorem for homogeneous effect algebras</i>
14:40 - 15:15	Sylvia Pulmannova (Bratislava) <i>Spin factors and generalized hermitian algebras</i>
15:20 - 15:40	coffee break
session X: MATHEMATICAL PHYSICS	
chair: Géza Lévai	
15:40 - 16:15	Fabio Bagarello (Palermo) <i>Linear and non-linear pseudo-bosons</i>
16:20 - 16:55	Jiří Janda (Brno) <i>Weakly ordered partial groups as a generalization of effect algebras for not only positive linear operators</i>
17:00	THE END OF THE THIRD DAY

THE LIST OF TALKS

December 15: Thursday

morning programme	
session XI: MATHEMATICAL PHYSICS	
chair: Jan Paseka	
9:30 - 10:05	Géza Lévai (Debrecen) <i>Solvable \mathcal{PT}-symmetric potentials with more flexible energy spectra</i>
10:10 - 10:45	Anatoly G. Nikitin (Kyiv) <i>Dual shape invariance and superintegrable models for arbitrary spin</i>
10:50 - 11:10	coffee break
session XII: THEORETICAL PHYSICS	
chair: Maurice Kibler	
11:10 - 11:45	Jaroslav Dittrich (Řež) <i>Integer topological charges for finite energy fields in the $O(3)$ sigma-model</i>
11:50 - 12:25	Vít Jakubský (Řež) <i>Twisting of carbon nanotubes via supersymmetry</i>
12:30 - 12:40	ROUND-TABLE DISCUSSION, CLOSING
12:40 - 14:00	LUNCH