The 9th international microconference

Analytic and algebraic methods in physics

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

the list of talks

1. **M. Howard Lee** (Athens, USA):: *Dynamics of a harmonic oscillator chain of finite length and the thermodynamic limit*
2. **Frederik G. Scholtz** (Stellenbosch): *Geometrical Representations of Lie Algebras*
3. **Zdena Riečanová** (Bratislava): *The set of positive linear operators densely defined in an infinite-dimensional complex Hilbert space*
4. **Martin Kalina** (Bratislava): *Atomic lattices equipped with several effect-algebraic operations*
5. **Maurice Kibler** (Lyon): *Coherent states for a generalized Weyl-Heisenberg algebra*
6. **Sergii Kuzhel** (Cracow): *On scattering theory for PT-symmetric operators*
7. **Petr Jizba** (Prague and Berlin): *The emergence of Special and Doubly Special Relativity*
8. **Daniel W. Hook** (London): *Exploring Isospectral Hamiltonians*
9. **Matthias Liertzer** (Vienna): *Scattering and lasing in coupled systems with gain and loss*
10. **Giuseppe Luca Celardo** (Brescia): *Superradiance transition in quantum transport*
11. **Ingrid Rotter** (Dresden): *Dynamical phase transitions below particle emission thresholds*

12. **Eva-Maria Graefe** (London): *Quantum signatures of three coalescing eigenfunctions*

13. **Günter Wunner** (Stuttgart): *Investigation of PT symmetry in Bose-Einstein condensates*

14. **Jiří Lipovský** (Řež): *Resonances on quantum graphs and hedgehog manifolds*

15. **Uwe Günther** (Dresden): *PTQM brachistochrone revisited*

16. **Dorje Brody** (London): *Information geometry of density matrices and state estimation*

17. **Jan Paseka** (Brno): *Triple Representation Theorem for homogeneous effect algebras*

18. **Sylvia Pulmannova** (Bratislava): *Spin factors and generalized hermitian algebras*

19. **Fabio Bagarello** (Palermo): *Linear and non-linear pseudo-bosons*

20. **Jiří Janda** (Brno): *Weakly ordered partial groups as a generalization of effect algebras for not only positive linear operators*

21. **Géza Lévai** (Debrecen): *Solvable $\mathcal{PT}$-symmetric potentials with more flexible energy spectra*

22. **Anatoly G. Nikitin** (Kyiv): *Dual shape invariance and superintegrable models for arbitrary spin*

23. **Jaroslav Dittrich** (Řež): *Integer topological charges for finite energy fields in the O(3) sigma-model*

24. **Vít Jakubský** (Řež): *Twisting of carbon nanotubes via supersymmetry*