Mini-symposium
"Algebraic Methods in Quantum Field Theory"

AMQFT	07.07.2014 IMI-BAS, Hall 503
Panel A1	*Chair: Fumihiko Sugino*
14:00-14:30	**Supersymmetry and neutral bions: hints about deconfinement?** Erich Poppitz
14:30-15:00	**Birdtrack construction of SU(N) projection operators** Stefan Keppeler
15:00-15:30	**Geometric Supersymmetry on Cahen-Wallach spaces** Frank Klinker
15:30-16:00	Coffee break
Panel A2	*Chair: Erich Poppitz*
16:00-16:30	**A generalization of Calabi-Yau fourfolds arising from M-theory compactifications** Elena Mirela Babalic, Calin Iuliu Lazaroiu
16:30-17:00	**Enumeration of vacua in string theory via algebraic combinatorics** Tamar Friedman
17:00-17:30	**Factorisation algebras and the Koszul duality** Takuo Matsuoka
AMQFT	09.07.2014 IMI-BAS, Hall 503
Panel A3	*Chair: Valentina Petkova*
14:30-15:15 (invited talk)	**Renormalization theory as a common playground for physicists and mathematicians** Ivan Todorov
15:15-16:00 (invited talk)	**A new venue of spontaneous supersymmetry breaking in supergravity** Eduardo Guendelman, Emil Nissimov, Svetlana Pacheva, Mahary Vasihoun
16:00-16:30	Coffee break
Panel A4	*Chair: Emil Nissimov*
16:30-17:00	**Grothendieck's dessins d'enfants in quantum contextuality** Michel Planat

17:00-17:30	**Geometric quantization of Poisson manifolds** Eli Hawkins
17:30-18:00	**KP hierarchy for a cyclic quiver** Oleg Chalykh
AMQFT	**10.07.2014 IMI-BAS, Hall 503**
Panel A5	*Chair: Stefan Keppeler*
09:00-09:30	**Spontaneous supersymmetry breaking and instanton sum in 2D type IIA superstring theory** Fumihiko Sugino
09:30-10:00	**Role of Lie algebra for confinement in non-Abelian gauge field scheme** Kimichika Fukushima, Hikaru Sato
10:00-10:30	**A compactness theorem for the Seiberg-Witten equations with multiple spinors** Andriy Haydys
10:30-11:00	Coffee break
Panel A6	*Chair: Frank Klinker*
11:00-11:30	**Vertex algebras and renormalization** Nikolay M. Nikolov
11:30-12:00	**Maurer-Cartan elements and cyclic operads** Ben Ward
12:00-12:30	**Conserved charges in metric-affine gravity: the paradox of non-metricity** Gideon I. Livshits
12:30-13:00	**Berezin-Toeplitz quantization: some open questions** Tatyana Barron
13:00-14:30	Lunch break
Panel A7	*Chair: Nikolay M. Nikolov*
14:30-15:00	**Higher-order singletons and partially massless fields** Xavier Bekaert
15:00-15:30	**Topological quantum spin models from conformal field theory** Anne E. B. Nielsen, Hong-Hao Tu, Ignacio Cirac, Gérman Sierra
15:30-16:00	**Quantization of principal U(1)-connections on globally hyperbolic spacetimes** Marco Benini
16:00-16:30	Coffee break

Panel A8	Chair: Ben Ward
16:30-17:00	**Weyl transformations for quantum and semiclassical Cosmological billiards** Orchidea Maria Lecian
17:00-17:30	**Functional renormalization group approach for composite-particle excitations** Yuya Tanizaki
17:30-18:00	**Quantization, holography and the universal coefficient theorem** Andrei T. Patrascu

AMQFT	07.07.2014 IMI-BAS, Hall 578	
Panel B1	Chair: Fedor Malikov	
14:00-14:30	**Pseudo-finite dimensional representations of sl(2,k)** Ivo Herzog	
14:30-15:00	**Principal subspaces for affine Lie algebra of type $B_2^{(1)}$** Marijana Butorac	
15:00-15:30	**Higher-dimensional Heegaard Floer homology** Vincent Colin	
15:30-16:00	Coffee break	
Panel B2	Chair: Ivo Herzog	
16:00-16:30	**The de Rham cohomology of quantum projective space** Réamonn Ó Buachalla	
16:30-17:00	**Discrete derived categories** Nathan Broomhead	
17:00-17:30	**Systems of differential operators and generalized Verma modules** Toshihisa Kubo	
17:30-18:00	**Invariant differential operators for non-compact Lie algebras parabolically related to conformal Lie algebras** Vladimir Dobrev	

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Panel B3	*Chair: Marijana Butorac*
14:30-15:00	**A Hopf algebra with the dimensions of the Bell numbers** Daniel Jiménez, <u>María Ronco</u>
15:00-15:30	**Classification of quantum groups and Lie bialgebra structures on sl(n; F)** Alexander Stolin, <u>Iulia Pop</u>
15:30-16:00	**Some bialgebras related to quantum field theory from an simplicial viewpoint.** <u>Imma Gálvez-Carrillo</u>
16:00-16:30	Coffee break
Panel B4	*Chair: María Ronco*
16:30-17:00	**Physical applications of noncommutative localization** <u>Patrick Moylan</u>
17:00-17:30	**Villamayor-Zelinsky sequence for braided finite tensor categories** <u>Bojana Femic</u>
17:30-18:00	**Quadratic algebras, Yang-Baxter equation,and Artin-Schelter regularity** <u>Tatiana Gateva-Ivanova</u>
18:00-18:30	**On the Yang-Baxter Equation** <u>Florin F. Nichita</u>
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Panel B5	*Chair: Ivan Todorov*
09:00-09:45 (invited talk)	**Rigidity of quantum tori and the Andruskiewitsch-Dumas conjecture** <u>Milen Yakimov</u>
09:45-10:30 (invited talk)	**Towards a complete classification of multipartite entanglement** <u>Gilad Gour</u>, Nolan R. Wallach
10:30-11:00	Coffee break
Panel B6	*Chair: Svetlana Pacheva*
11:00-11:30	**Positive representations and quantum higher Teichmüller theory** <u>Ivan Ip</u>
11:30-12:00	**Quantizations of cluster algebras** <u>Philipp Lampe</u>

12:00-12:30	**Topology of moduli spaces of free group representations in reductive groups** Ana Casimiro, Carlos Florentino, Sean Lawton, André Oliveira
12:30-13:00	**Toric quiver moduli** Dániel Joó
13:00-14:30	Lunch break
Panel B7	*Chair: Ivan Ip*
14:30-15:00	**Quantum plactic monoid** Todor Popov
15:00-15:30	**Boson-fermion correspondence in the language of symmetric functions** Natasha Rozhkovskaya
15:30-16:00	**Fine Gradings on Heisenberg algebras and related structures** Cristina Draper Fontanals
16:00-16:30	Coffee break
Panel B8	*Chair: Todor Popov*
16:30-17:00	**Two-dimensional scattering and unitarity methods** Valentina Forini, Lorenzo Bianchi, Ben Hoare
17:00-17:30	**Characterizations of Ricci flat metrics and Lagrangian submanifolds in terms of the variational problem** Tetsuya Taniguchi
17:30-18:00	**Fundamental group of a monstrous (?) discriminant complement** Tathagata Basak
18:00-18:30	**Algebras of chiral differential operators on singular algebraic varieties** Fedor Malikov