

IX. International Workshop

LIE THEORY

AND ITS

APPLICATIONS IN PHYSICS

20 - 26 June 2011, [Varna](#) , [Bulgaria](#)

List of Scientific Contributions (67)

Participant	Title of Contribution
Aizawa , Naruhiko	Some properties of planar Galilean conformal algebras
Alekseev , Anton	Deformation quantization and flat connections
Anguelova , Iana	Boson-fermion correspondences and twisted vertex algebras
Bakalov , Bojko	Singularities, root systems, and W-algebras
Barron , Katrina	On certain constructions of supersymmetric vertex operator superalgebras and twisted sectors
Beltaos , Elaine	Fixed Point Factorisation
Bonora , Loriano	The energy of the lump
Burdik , Cestmir	Extremal vectors for Verma type representations of $U_q(\mathfrak{sl}(3))$ and $U_q(\mathfrak{su}(2,1))$.
Carnahan , Scott	Conformal blocks on nodal curves
Catto , Sultan	Construction of Exceptional Hilbert Spaces based on Jordan Algebras

Colombeau, Jean Francois	Nonlinear generalized functions as a tool in theoretical and mathematical physics
Coulembier, Kevin	Invariant integration on orthosymplectic and unitary supergroups
Creutzig, Thomas	Cosets and Extended Algebras of the $GL(1 1)$ WZW model
D'Alessandro, Domenico	The role of Lie algebras and Lie groups in the analysis and control of quantum mechanical systems
D'Ambroise, Jennie	Parametric and other exact solutions to Einstein's equations in terms of special functions
Dayi, Omer Faruk	An Alternative Formulation of Hall Effect and Quantum Phases in Noncommutative Space
Dimitrijevic, Ivan	On Cosmological Aspects of $f(R)$ Modified Gravity
Dragovich, Branko	Adelic Cosmology
Feher, Laszlo	On the Hamiltonian reduction approach to Sutherland type integrable many-body systems
Finkelstein, David	♠ Palev Statistics: Physics Made Simple
Friedmann, Tamar	Orbifold singularities, Lie algebras of the third kind (LATKs), and pure Yang-Mills with matter
Georgiev, Lachezar	Thermodynamic properties of the Coulomb blockade peaks in electronic Fabry-Perot interferometers
Gerasimova, Tatiana	Unitary Similarity of Unicellular Operators
Golubtsova, Anastasia	Exact solutions corresponding to Lie algebras in multidimensional gravity theories of string origin.
Hadjiivanov, Ludmil	On quantum monodromy matrices and their determinants
Hrivnak, Jiri	Two types of E-discretization of tori of

	compact semisimple Lie groups
Ilieva , Nevena	Quantum gauge fields and flat connections in 2-dimensional BF theory
Jinzenji , Masao	Mirror Map as Generating Function of Intersection Numbers
Joseph , Anthony	Invariants, slices and Toda-lattice systems for some non-reductive Lie Algebras
Karadzhov , Yuri	Matrix Superpotentials
King , Ronald	♠ From Palev's study of Wigner quantum systems to new results on sums of Schur functions
Klimcik , Ctirad	On self-duality of the compactified Ruijsenaars-Schneider system
Knezevic , Miljan	Some Properties of Harmonic Quasiregular Mappings
Kobayashi , Toshiyuki	Analysis on Minimal Representations
Kojima , Takeo	The elliptic algebra $U_{\{q,p\}}(\mathfrak{g})$ as the Drinfeld current of the elliptic quantum group $\mathcal{B}_{\{q,\lambda\}}(\mathfrak{g})$: recent advances for superalgebra $\hat{\mathfrak{sl}}(M N)$
Leandre , Remi	Poisson structure in infinite dimensional analysis
Linshaw , Andrew	Invariant subalgebras of affine vertex algebras
Loday , Jean-Louis	Noncommutative shuffles and higher structures in algebra
Moylan , Patrick	The Casimir Effect in the Einstein Universe
Neumann , Christoph	Progress in partial wave expansion
Nikolov , Nikolay	Anomalies and renormalization group in configuration space renormalization
Nissimov , Emil	Lightlike Braneworlds in Anti-de-Sitter Bulk Space-times

Novotny , Petr	Graded contractions of representations of Lie algebras
Penkov , Ivan	Koszul categories of $sl(1)$ -, $o(1)$ -, $sp(1)$ -modules
Poletaeva , Elena	Finite W -algebras for Lie superalgebras
Popov , Todor	The A_∞ -Functor of Symmetric Young Tableaux
Pusztai , Bela Gabor	Sutherland models and their duals: a scattering theoretic approach
Rakic , Zoran	On a Decomposition of the Space of Curvature Tensors
Rehren , Karlhenning	New constructions of 2D quantum field theories by algebraic deformations
Rej , Adam	The Yanigan of $sl(n m)$ and the Universal R-matrix
Rosado , Maria Eugenia	Differential invariants of second-order ordinary differential equations
Salom , Igor	Generalization of the Gell-Mann decontraction formula for $sl(n, \mathbb{R})$ and applications in affine gravity
Stekolshchik , Rafael	Semi-Coxeter orbits and the Carter theorem
Stoimenov , Stoimen	On non-local representations of the ageing algebra: geometric interpretation and co-variant two-point functions
Sugino , Fumihiko	Spontaneous supersymmetry breaking in matrix models from the viewpoints of localization and Nicolai mapping
Todorov , Ivan	Configuration Space Renormalization and Residues of Primitively Divergent Graphs
Van Der Jeugt , Joris	♠ Wigner quantization and Lie superalgebra representations
Vaneeva , Olena	Group classification of variable coefficient mKdV-like equations
Vercruyse , Joost	On the duality of generalized Hopf and Lie algebras.

Vodova , Jirina	The Darboux coordinates for a new family of Hamiltonian operators
Vojcak , Petr	On symmetries and conservation laws for a system of hydrodynamic type describing relaxing media
Volkov , Alexander	Pentagon Identity Revisited
Wang , Zhituo	Quantum field theory on quantized type-I Cartan domain
Wilson , Justin	Lie Algebraic approaches to quantum dynamics: The breakdown of the coherent state path integral and the Bose-Hubbard model.
Yahalom , Asher	A New Diffeomorphism Symmetry Group of Magnetohydrodynamics
Yakimov , Milen	A Dixmier map for quantum groups
Yamada , Hiromichi	Singular vectors and Zhu's Poisson algebra of parafermion vertex operator algebras
<p>♠ = Invited talk at the special session honouring the 75-year Jubilee of Tchavdar Palev, Professor Emeritus at INRNE.</p>	