

XXIV International Conference on Integrable Systems and Quantum Symmetries 2016 (ISQS-24)

Journal of Physics: Conference Series Volume 804

Prague, Czech Republic
14 – 18 June 2016

Editors:

**Cestmir Burdik
Ondrej Navratil
Severin Posta**

ISBN: 978-1-5108-3898-7
ISSN: 1742-6588

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2016) by the Institute of Physics
All rights reserved. The material featured in this book is subject to
IOP copyright protection, unless otherwise indicated.

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of contents

Volume 804

XXIV International Conference on Integrable Systems and Quantum symmetries (ISQS-24)

14–18 June 2016, Prague, Czech Republic

Accepted papers received: 13 January 2017

Published online: 4 April 2017

Preface

011001

OPEN ACCESS

[XXIV International Conference on Integrable Systems and Quantum symmetries \(ISQS-24\)](#)

Čestmír Burdík, Ondřej Navrátil and Severin Posta

011002

OPEN ACCESS

[Peer review statement](#)

Papers

012001

OPEN ACCESS

[Direct Photon Production in Pion-Proton Collisions](#)

A. I. Ahmadov, C. Aydin and O. Uzun.....1

012002

OPEN ACCESS

[Magnetization Plateaus and Thermal Entanglement of Spin Systems](#)

N Ananikian, Č Burdík, L Ananikyan and H Poghosyan.....8

012003

OPEN ACCESS

[Quantum entropies, Schur concavity and dynamical semigroups](#)

Paolo Aniello.....19

012004

OPEN ACCESS

[Lax representation and soliton solutions for the \(2+1\) -dimensional two-component complex modified Korteweg-de Vries equations](#)

G T Bekova, G N Shaikhova, K R Yesmakhanova and R Myrzakulov.....29

012005

OPEN ACCESS

[Self-duality in higher dimensions](#)

A H Bilge, T. Dereli and S. Kocak.....36

012006

OPEN ACCESS

[Inequivalent representations in the functional integral framework](#)

M Blasone, P Jizba and L Smaldone.....42

012007

OPEN ACCESS

[Mixed Nash equilibria in Eisert-Lewenstein-Wilkens \(ELW\) games](#)

Katarzyna Bolonek-Lasoń and Piotr Kosiński.....52

012008

OPEN ACCESS

[Do the Kontsevich tetrahedral flows preserve or destroy the space of Poisson bi-vectors?](#)

Anass Bouisaghouane and Arthemy V Kiselev.....61

012009

OPEN ACCESS

[Supergroups in Critical Dimensions and Division Algebras](#)

Čestmir Burdik, Sultan Catto, Yasemin Gürcan, Amish Khalfan, Levent Kurt and V. Kato La.....71

012010

OPEN ACCESS

[D2-brane within coset approach](#)

Č Burdík and S. Krivonos.....79

012011

OPEN ACCESS

[The tetrahedric angular Calogero model](#)

F Correa and O Lechtenfeld.....84

012012

OPEN ACCESS

[New spinor fields classes and applications](#)

Roldao da Rocha.....97

012013

OPEN ACCESS

[On a Microscopic Representation of Space-Time V](#)

R Dahm.....104

012014

OPEN ACCESS

[T-dualization of a weakly curved background](#)

Lj. Davidović, B. Nikolić and B. Sazdović.....112

012015

OPEN ACCESS

[Positive Energy Unitary Irreducible Representations of the Superalgebras \$osp\(1|2n, IR\)\$ and Character Formulae for \$n = 3\$](#)

V.K. Dobrev and I. Salom.....121

012016

OPEN ACCESS

[Determining quantum correlations in bipartite systems - from qubit to qutrit and beyond](#)

Andrzej Frydryszak, Lech Jakóbczyk and Piotr Ługiewicz.....139

012017

OPEN ACCESS

[Deformations of the standard model: \$SU_q\(3\)\$ flavor symmetry](#)

Niels G. Gresnigt.....147

012018

OPEN ACCESS

[Symmetrized Vibrational-Rotational Basis for Collective Nuclear Models](#)

A.A. Gusev, S.I. Vinitzky, A. Góźdz, A. Dobrowolski, A. Szulerecka and A. Pędrak.....156

012019

OPEN ACCESS

[\$\mathcal{L}\$ -conformal Galilei symmetry in the general relativistic context](#)

D. Chernyavsky and A. Galajinsky.....166

012020

OPEN ACCESS

[Off- and on-shell harmonic superspaces for 6D SYM theories](#)

Evgeny Ivanov.....169

012021

OPEN ACCESS

[Long \$N = 2, 4\$ multiplets in supersymmetric mechanics](#)

Evgeny Ivanov, Antonio Rivasplata Mendoza and Stepan Sidorov.....178

012022
OPEN ACCESS
[Orthogonal and symplectic Yangians: oscillator realization](#)

D Karakhanyan and R Kirschner.....188

012023
OPEN ACCESS
[Orthogonal and symplectic Yangians](#)

R Kirschner.....198

012024
OPEN ACCESS
[N = 4, d = 3 Born-Infeld theory in component approach](#)

N Kozyrev and S Krivonos.....206

012025
OPEN ACCESS
[Superintegrable systems on Poisson manifolds](#)

A. Kurov and G. Sardanashvily.....216

012026
OPEN ACCESS
[Supercoset construction of Yang-Baxter deformed \$AdS_5 \times S^5\$ backgrounds](#)

Kyono Hideki.....227

012027
OPEN ACCESS
[SL\(2, C\) Instanton Sheaves](#)

Sheng-Hong Lai.....241

012028
OPEN ACCESS
[Kappa-deformations: historical developments and recent results](#)

Jerzy Lukierski.....251

012029

OPEN ACCESS

[Anomalous transport and massive gravity theories](#)

Eugenio Megías.....270

012030

OPEN ACCESS

[Representations of the Bondi—Metzner—Sachs group in three space—time dimensions](#)

Evangelos Melas.....280

012031

OPEN ACCESS

[Quantum vorticity at positive temperature for spins systems with continuous symmetry](#)

D Minenkov and M Rouleux.....289

012032

OPEN ACCESS

[Modular Spacetime and Metastring Theory](#)

Laurent Freidel, Robert G Leigh and Djordje Minic.....298

012033

OPEN ACCESS

[Nonlinear Schrödinger Equation, 2D \$N = \(2, 2\)^*\$ Topological Yang-Mills-Higgs Theory and Their Gravity Dual](#)

Jun Nian.....318

012034

OPEN ACCESS

[Minimal conformal supergravity invariants in six dimensions](#)

J Novak.....327

012035

OPEN ACCESS

[Hirota's method for a spin model with self-consistent potential](#)

G. Nugmanova, Zh. Sagidullayeva and R. Myrzakulov.....337

012036

OPEN ACCESS

[Generalized Jack and Macdonald polynomials arising from AGT conjecture](#)

Y Ohkubo.....342

012037

OPEN ACCESS

[Integrability in out-of-equilibrium systems](#)

Eric RAGOUCY.....349

012038

OPEN ACCESS

[On nonlinear Fourier transform: towards the nonlinear superposition](#)

Pavle Saksida.....364

012039

OPEN ACCESS

[Bi-Hamiltonian structure of the general heavenly equation](#)

M B Sheftel, A A Malykh and D Yazıcı.....374

012040

OPEN ACCESS

[Relativistic wave equations of arbitrary spin in quantum mechanics and field theory, example spin \$s=2\$](#)

Volodimir Simulik.....384

012041

OPEN ACCESS

[Ordinary matter, dark matter, and dark energy on normal Zeeman space-times](#)

Zoltán Imre Szabó.....394

012042

OPEN ACCESS

[Action-angle approach to the geodesic motions in the homogeneous Sasaki-Einstein space \$T^{1,1}\$](#)

Mihai Visinescu.....419

012043

OPEN ACCESS

[Symmetry of String Scattering Amplitudes](#)

Yi Yang.....426