

# UKRAINIAN JOURNAL OF PHYSICS

NATIONAL ACADEMY OF SCIENCES OF UKRAINE  
BOGOLYUBOV INSTITUTE FOR THEORETICAL PHYSICS

11 VOLUME 58  
2013

SCIENTIFIC JOURNAL  
12 TIMES PER YEAR  
ISSUED FROM APRIL 1956  
KYIV



## CONTENTS

International Conference “Quantum Groups and Quantum Integrable Systems” Kyiv, June 18–21, 2013 . . . . .	1023
<i>Gavrilik A.M., Kachurik I.I., Lukash A.V.</i> New Version of $q$ -Deformed Supersymmetric Quantum Mechanics . . . . .	1025
<i>Bespalov Yu.N.</i> From Bialgebras to Operads. Quantum Line and Cooperad of Correlation Functions . . . . .	1033
<i>Nikitin A.G.</i> Superintegrable Systems with Arbitrary Spin. . . . .	1046
<i>Nazarenko A.V.</i> Area Quantization of the Parameter Space of Riemann Surfaces in Genus Two. . . . .	1055
<i>Ovsiyuk E.M., Veko O.V.</i> On Behavior of Quantum Particles in an Electric Field in Spaces of Constant Curvature, Hyperbolic and Spherical Models. . . . .	1065
<i>Ovsiyuk E.M., Veko O.V., Kazmerchuk K.V., Kisel V.V., Red'kov V.M.</i> Quantum Mechanics of a Spin 1 Particle in the Magnetic Monopole Potential, in spaces of Euclid and Lobachevsky: Non-Relativistic Approximation . . . . .	1073
<i>Bezvershenko Yu.V., Holod P.I.</i> Extended State Space of the Rational $sl(2)$ Gaudin Model in Terms of Laguerre Polynomials . . . . .	1084
<i>Vakhnenko O.O.</i> Semidiscrete Integrable Systems Inspired by the Davydov–Kyslukha Model . . . . .	1092
<i>Kozak A.V.</i> Integrability in AdS/CFT . . . . .	1108
<i>Burban I.M.</i> Unified $(p, q; \alpha, \gamma, l)$ -Deformations of Oscillator and Hybrid Oscillator Algebras and Two-Dimensional Conformal Field Theory . . . . .	1113