

## CONTENTS

Preface	v
Organizing Committee	vii
Contributed Communications	viii
Moduli space of Killing helices of low orders on a complex space form	1
<i>T. Adachi</i>	
Type two Killing helices of proper order four on a complex projective plane	9
<i>T. Adachi and S. Maeda</i>	
Real analyticity of the hyperkahler almost Kähler manifolds	15
<i>L.N. Apostolova</i>	
KCC and linear stability for the Parkinson tremor model	23
<i>V. Balan</i>	
The Camassa-Holm equation as a geodesic flow for the $H^1$ right-invariant metric	33
<i>A. Constantin and R.I. Ivanov</i>	
Fermi-Walker parallel transport, time evolution of a space curve and the Schrödinger equation as a moving curve	42
<i>R. Dandoloff</i>	
Remarks on bicomplex variables and other similar variables	50
<i>S. Dimiev, R. Lazov and S. Slavova</i>	

Integrability, curvature and description of photon-like objects <i>S. Donev and M. Tashkova</i>	57
Complex submanifolds and Lagrangian submanifolds associate with minimal surfaces in tori <i>N. Ejiri</i>	66
About resonances for Schrödinger operators with short range singular perturbation <i>V. Georgiev and N. Visciglia</i>	74
Soliton equations with deep reductions. Generalized Fourier transforms <i>V. Gerdjikov, N. Kostov and T. Valchev</i>	85
On some deformations of almost complex structures of 6-dimensional submanifolds in the octonions <i>H. Hashimoto</i>	97
On the real hypersurfaces of locally conformally-Kähler manifolds <i>M.J. Hristov</i>	110
Normal frames and linear transports along paths in line bundles. Applications to classical electrodynamics <i>B.Z. Iliev</i>	119
Existence and uniqueness results for the Schrödinger — Poisson system below the energy norm <i>A.M. Ivanov and G.P. Venkov</i>	130
Double-complex quadratic forms <i>B. Kiradjiev</i>	138
Effects of finite arithmetic in numerical computations <i>M.M. Konstantinov and P.H. Petkov</i>	146
Exact solutions of the manakov system <i>N.A. Kostov</i>	158

The Manakov system as two moving interacting curves <i>N.A. Kostov, R. Dandoloff, V.S. Gerdjikov and G.G. Grahovski</i>	168
Cluster sets and periodicity in some structure fractals <i>J. Lawrynowicz, S. Marchiafava and M. Nowak-Kępczyk</i>	179
Sectional curvatures of some homogeneous real hypersurfaces in a complex projective space <i>S. Maeda and M. Kimura</i>	196
On three-parametric Lie groups as quasi-Kähler manifolds with killing Norden metric <i>M. Manev, K. Gribachev and D. Mekerov</i>	205
Application of unscented and extended Kalman filtering for estimating quaternion motion <i>V. Markova</i>	215
Counterexamples of compact type to the Goldberg conjecture and various version of the conjecture <i>Y. Matsushita</i>	222
Dispersion and asymptotic profiles for Kirchhoff equations <i>T. Matsuyama and M. Ruzhansky</i>	234
Geometry of statistical manifolds and its generalization <i>H. Matsuzoe</i>	244
On some non-integrable almost contact manifolds with nor- den metric of dimension 5 <i>G. Nakova</i>	252
Complexification of the propagator for the harmonic oscillator <i>T. Nitta</i>	261
Some critical almost Kähler structures with a fixed Kähler class <i>T. Oguro, K. Sekigawa and A. Yamada</i>	269

On the hypoellipticity of some classes of overdetermined systems of differential and pseudodifferential operators <i>P.R. Popivanov</i>	278
Lie groups as four-dimensional Riemannian product manifolds <i>D.K. Shtarbeva</i>	290
Differential forms of many double-complex variables <i>P.V. Stoev</i>	299
Isometric immersions and extrinsic shapes of smooth curves <i>T. Sugiyama</i>	308
Lie groups as four-dimensional conformal Kähler manifolds with Norden metric <i>M. Teofilova</i>	319
Bäcklund transformations and Riemann-Hilbert problem for $N$ wave equations with additional symmetries <i>T. Valchev</i>	327
Author Index	335