

8-TH INTERNATIONAL WORKSHOP ON
COMPLEX STRUCTURES AND VECTOR FIELDS
SOFIA, 21-26 AUGUST 2006

PROGRAM

August 18, 2006

AUGUST 21 Differential Geometry

- 8:00 – 9:15 REGISTRATION
9:15 – 9:45 OPENING
(Dodunekov, J. Stamenov, S. Dimiev, V. Gerdjikov)
9:45 – 10:30 **Yasuo Matsushita** Almost Kähler-Einstein structures on 8-dimensional Walker manifolds

10:30 – 10:50 Coffee break

- 10:50 - 11:35 **Peter Popivanov** On the hypoellipticity of complex valued vector fields
11:35 - 12:15 **Toshiaki Adachi** Killing helices on a complex projective space and canonical magnetic fields on geodesic spheres

Lunch time

- 15:30 - 16:10 **Vestislav Apostolov** Generalized Kähler manifolds, commuting complex structures and split tangent bundles
16:10 - 16:50 **Rossen Dandolo** Anholonomy of a moving space curve and the Schrödinger equation

16:50 - 17:10 Coffee break

- 17:10 - 17:50 **Hideya Hashimoto** On almost Hermitian structures of 6-dimensional submanifolds in the octonions
17:50 - 18:30 **Norio Ejiri** Complex submanifolds and Lagrangian submanifolds associated with minimal surfaces in tori

AUGUST 22 Mathematical Physics and PDE

9:00 - 9:45 **Julian Lawrinowicz** Clusters and fractals in mathematical physics

9:45 - 10:30 **Vladimir Georgiev** Nonexistence of nonzero resonances for Schrödinger operators with singular perturbation

10:30 - 10:50 Coffee break

10:50 - 11:30 **Vladimir Gerdjikov** Hamiltonian aspects of soliton equations with deep reductions

11:30 - 12:00 **Tihomir Valchev** Bäcklund transformations and Riemann-Hilbert problem for N-wave equations with additional symmetries

Lunch time

15:30 - 16:10 **Georgi Grahovski** The Caudrey-Beals-Coifman systems and the gauge group action

16:10 - 16:50 **Nikolay Kostov** The Manakov model as two moving interacting curves

16:50 - 17:10 Coffee break

17:10 - 17:50 **Stoil Donev** Integrability, curvature and description of photon-like objects

17:50 - 18:30 **Tadashi Sugiyama** Characterization of totally umbilic immersions by curves of order 2

AUGUST 23 Differential Geometry

9:00 - 9:45 **Kouei Sekigawa** Some critical almost Kähler structures

9:45 - 10:25 **Sadahiro Maeda** Characterization of parallel isometric immersions of space forms into space forms in the class of isotropic immersions

10:25 - 10:45 Coffee break

10:45 - 11:15 **Milen Hristov** On the real hypersurfaces of Hermitian manifolds

11:15 - 11:45 **Galya Nakova** On some non-integrable almost contact manifolds with Norden metric of dimension 5

11:45 - 12:25 **Bozhidar Iliev** Normal frames and linear transports along paths in line bundles. Applications to classical electrodynamics

Lunch time

15:30 - 16:00 **Velichka Milousheva** On the geometric structure of hypersurfaces of conullity two in Euclidean space

16:00 - 16:40 **Mancho Manev** On quasi-Kähler manifolds with Norden metric

16:40 - 17:00 Coffee break

17:00 - 17:30 **Dobrinka Gribacheva** Lie groups as four-dimensional Riemannian product manifolds

17:30 - 18:00 **Marta Teofilova** Lie groups as several complex manifolds with Norden metric

Conference dinner

AUGUST 24 EXCURSION

AUGUST 25 Complex Analysis

9:00 - 9:40 **Vladimir Balan** KCC and linear stability for the Parkinson tremor model

9:40 - 10:20 **Stancho Dimiev** Bi-complex analytic pseudo-Euclidean geometry and applications

10:20 - 10:40 Coffee break

10:40 - 11:10 **Nikolai Nikolov** On the definition of Kobayashi-Buseman pseudometric

11:10 - 11:40 **Petar Stoev** Differential forms of bi-complex variables

11:40 - 12:10 **Petya Furlinska** Polynomials of bi-complex variables

Lunch time

15:30 - 16:00 **Branimir Kiradjiev** Quadratic forms on the bi-complex algebras

16:00 - 16:30 **Lilya Apostolova** Real analyticity of the hyper-Kähler almost Kähler manifolds

16:30 - 16:50 Coffee break

16:50 - 17:20 **Assen Kyuldjiev** Symmetries of the Manev problem and its real Hamiltonian form

17:20 - 18:00 **Rossen Ivanov** Camassa-Holm equation as a geodesic flow of the right invariant metric

AUGUST 26 Complex Analysis and Applied Mathematics

9:00 - 9:40 **Hiroshi Matsuzoe** Information geometry and affine differential geometry

9:40 - 10:20 **Vesna Manova** Distributional boundary values of the functions in the Djrbjashian classes

10:20 - 10:40 Coffee break

10:40 - 11:20 **Mihail Konstantinov** Effects of finite arithmetic – myths and realities

11:20 - 11:50 **Angel Ivanov, George Venkov** Global existence of the solution to the Hartree equation

11:50 - 12:20 **Iona Zasada** Phase transitions in binary alloy thin films

12:20 - 12:50 **Marin Marinov** Homogenization Of Nonlinear Parabolic Operators Of High Order

Lunch time

15:30 - 16:00 **Vanya Markova** Application of Unscented and Extended Kalman Filtering for Estimating Quaternion Motion

16:00 - 16:30 **Peace Nwaobilor** Non-oscillating trajectories of vector fields and Zariskis local uniformization

16:30 - 17:00 **Clement Ijeh** Centroidal Voronoi tessellation based algorithms for vector fields visualization and segmentation

17:00 - 17:20 Coffee break

17:20 - 17:50 **Oladipupo Ipadeola** Anisotropic depth migration on complex-structure land data

17:50 - 18:20 **Isaak Ibenme** Dislocations in complex materials

18:20 - 18:50 **CLOSING**