

Fourth International Workshop on Complex Structures and Vector Fields

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*Aspects of*

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**Complex Analysis,  
Differential Geometry,  
Mathematical Physics  
and Applications**

*St. Konstantin, Bulgaria  
September 3 – 11, 1998*

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**FOURTH INTERNATIONAL WORKSHOP ON  
COMPLEX STRUCTURES AND VECTOR FIELDS**

**September 3–11, 1998, St.Konstantin, Bulgaria**

**CONTRIBUTED COMMUNICATIONS**

1. Toshiaki ADACHI  
Kähler magnetic fields and length spectrum on a complex hyperbolic space
2. Vestilav APOSTOLOV  
Bihermitian surfaces of non-Kähler type
3. Johan DAVIDOV  
Geometry of twistor spaces (with G. GRANCHAROV and O. MUSHKAROV)
4. Stancho DIMIEV  
Holomorphic coordinates on real analytic manifolds (with D. FRENKEV and K. SPALLEK)
5. Stoil DONEV  
Photon-like 3 + 1 solution solutions in extended electrodynamics
6. Albert FÄSSLER  
Block structured matrices and numerical methods for partial differential equations
7. Antonio FERNANDEZ  
Belinfante-Rosenfeld-Hilbert formulas in generalized gauge theory
8. Hideya HASHIMOTO  
On CR-submanifolds of nearly Kähler  $S^6$  and related topics
9. Mikihiro HAYASHI  
Bounded analytic functions on Riemann surfaces
10. Milen HRISTOV  
On the integrability conditions for almost complex and almost contact structures
11. Azniv KASPARJAN  
Hermitian symmetry of infinitesimally trivial harmonic images of compact Kähler manifolds

12. Takashi KODA  
Nearly Kähler weakly symmetric spaces (with L. VANHECKE and Y. WATANABE)
13. Shozo KOSHI  
Ordered topological linear spaces
14. Vladimir KOSTOV  
On Deligne-Simpson problem
15. Alexander KYTMANOV  
Boundary Morera theorem in classical symmetric domains
16. Julian LAWRAINOWICZ  
An approach to 5-,9- and 13-dimensional complex dynamics (with O. SUZUKI)
17. Sadahiro MAEDA  
Isoparametric hypersurfaces in a real space form
18. Sawa MANOFF  
Invariant projections and covariant divergency of energy momentum tensors
19. Stefano MARCHIAFAVA  
Complex and hypercomplex structures on quaternionic manifolds (with D. ALEKSEEVSKI and M. PONTEKORVO)
20. Ivailo MLADENOV  
Geometric quantization of the assymetric rotors
21. Oleg MUSHKAROV  
Weak Einstein conditions on complex surfaces (with. V. APOSTOLOV)
22. Simona MYSLIVETS  
On one-side holomorphic extension of CR functions along complex curves
23. Gregory NABER  
An introduction to topology and classical guage theory (five lectures)
24. Galja NAKOVA  
4-dimensional submanifolds of 7-dimensional almost contact manifolds with B-metric
25. Nikolai NIKOLOV  
Higher order Caratheodory and Kobayashi metrics

26. Kaoru ONO  
Obstruction theory for Floer homology for Lagrangian intersections
27. Kiyoshi OHBA  
Riemann surfaces with Abelian differentials (with Y. HASHIMOTO)
28. Yoshio OHNUKI  
Quantization on closed manifolds
29. Georgi POPOV  
Wave-trace formulae
30. Walter SCHEMPP  
Unitary symplectic spinors and their applications to quantum teleportation and magnetic resonance tomography
31. Kouei SEKIGAWA  
Goldberg conjecture (4-dimensional case)
32. Armen SERGEEV  
Vortex equation on a Riemann surface
33. Tatsuru TAKAKURA  
Hamiltonian group action, equivariant index and cobordism
34. Todor TODOROV  
Boundary surface properties and commutativity of self-adjoint extensions of certain operators of mathematical physics.