

**CONFERENCE ON GEOMETRY
AND MATHEMATICAL PHYSICS
Bulgaria, Zlatograd, 28.08 – 1.09.1995**

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Lectures delivered at the conference on Geometry and Mathematical Physics

T. Ali, Coherent states in quantization

B. Bakalov, Tau-functions as highest weight vectors of W-algebras

N. Berline, Equivariant Chern characters of a superconnection and index of transversally elliptic operators

V. Buchakchiev, Application of the Double Flag Fibrations

O. Hristov, On KAM-theory conditions for Kirchhoff top

K. Cieliebak, What does the interior of a symplectic manifold know about its boundary

Dr. Dragnev, The isoenergetical nondegeneracy of the problem of two centers of gravitation

L. Farhy and *V. Tsanov*, Trace distributions, resonances and zeros of class of zeta functions

V. Iliev, Generalization of Polya enumeration theorem

T. Johnsen, Curves on Calabi-Yau threefolds

A. Kasparian, When does a bounded domain cover a projective manifold?

- H. Kuratsuji*, Quantum mechanics of Guiding center by using coherent state path integral
- R. Levi*, Hermitian Riemann-Roch theorem for singular spaces
- I. Mladenov* and *V. Tsanov*, Reduction in stages and complete quantization of the MIG-KEPLER problem
- N. Pedersen*, The Heisenberg group of a solvable Lie group and its quantization
- K. Ranestad*, Calabi-Yau threefolds with abelian surfaces in P^6
- W. Schempp*, Magnetic resonance imaging (MRI) and harmonic analysis on the Heisenberg group
- A. Schmitt*, Skyrme-model and a geometric construction for almost solutions of minimal energy in nonlinear field theory
- D. Tolev*, Some additive problems with prime numbers
- G. Vodev*, Asymptotics on the number of scattering poles
- M. Yakimov*, Highest weight modules of W -algebras, Darboux transformations and bispectral algebras
- M. Yotov*, Nadel's submanifolds of Fano manifolds X with a Picard group $\text{Pic}(X)$ isomorphic to Z .
- A. Zhivkov*, Effective solutions of Lagrange top

The papers of this volume are scripts of lectures delivered by participants in the conference. They were submitted to the organizing committee before the end of January 1996, and are ordered in alphabetic order of the name of first author.

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V. Tsanov