



Veliko Tarnovo
September 03–07, 2012



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3rd International Colloquium on Differential Geometry and its Related Fields

Date September 3 (Mon) — 7 (Fri), 2012

Place Building 5, Room 400, St. Cyril and St. Methodius University of
Veliko Tarnovo, Bulgaria

Program

September 3 (Mon)

8:50 – 9:00 opening

Morning Session Chairman:

9:15 – 9:50 Bouyuklieva, Stefka, Arsov, Emil & Varvanov, Zlatko
(Veliko Tarnovo Univ.)

An Application of the Gaussian integers in Coding Theory

10:10 – 11:00 Urakawa, Hajime (Tohoku Univ.)

Geometry of biharmonic maps

– existence, non-existence and classification problems
of proper biharmonic maps –

11:20 – 12:10 Hadjiivanov Slavi & Hristov, Milen (Veliko Tarnovo Univ.)

Affine and conformal transformations of rational Bezier Curves

12:15 – 14:00 lunch

Afternoon Session Chairman:

14:00 – 14:50 Ivanov, Nikolay (Veliko Tarnovo Univ.)

String Theory and Noncommutative Geometry

15:10 – 16:00 Hristov, Milen (Veliko Tarnovo Univ.)

Trajectories of Rational Bezier Curves and its Convolutions

16:20 – 16:45 Bai, Pengfei (Nagoya Inst. Tech.)

Estimates of volumes of trajectory-balls for Kaehler magnetic fields

17:00 – 17:25 Discussions

September 4 (Tues)**Morning Session** Chairman:

- 9:00 – 9:50 Ohashi, Misa (Osaka City Univ)
On the G_2 -congruence classes of curves in the purely imaginary octonions
- 10:10 – 11:00 Sakane, Yusuke (Osaka Univ.)
*Homogeneous Einstein metrics on generalized flag manifolds
– cases with G_2 -type t -roots –*
- 11:20 – 12:10 Leifer, Peter (Crimea State Univ.)
*The role of the $CP(N-1)$ geometry in the intrinsic unification
of the general relativity and QFT*
- 12:15 – 14:00 lunch

Afternoon Session Chairman:

- 14:00 – 14:50 Ganchev, Georgi (Bulgarian Acad. Sci.)
Surfaces in the four-dimensional Euclidean or Minkowski space
- 15:10 – 16:00 Goto, Midori (Fukuoka Inst. Tech.)
On generalized Liouville manifolds
- 16:20 – 17:00 Adachi, Toshiaki (Nagoya Inst. Tech.)
*Trajectories for Sasakian magnetic fields
and circles on a nonflat complex space form*
- 17:10 – 17:30 Discussions

September 5 (Wed)**Morning Session** Chairman:

- 9:00 – 9:50 Manev, Mancho (Plovdiv Univ.)
*Natural connections with totally skew-symmetric torsion
on some manifolds with additional tensor structures
and metrics of Norden-type*
- 10:10 – 11:00 Ivanova, Miroslava (Plovdiv Univ.)
*Natural connections with torsion expressed by the metric tensors
on almost contact manifolds with B -metric*
- 11:20 – 12:10 Nakova, Galya (Veliko Tarnovo Univ.)
*Lightlike Hypersurfaces of Almost Complex Manifolds
with Norden Metric*
- 12:30 – 12:50 Discussions
- 13:00 – 14:30 lunch
- 15:00 – 16:30 Meeting with the Rector of Veliko Tarnovo Univ. (only for organizers)

September 6 (Thur)

Morning Session Chairman:

- 9:00 – 9:50 Uohashi, Keiko (Tohoku Gakuin Univ.)
 α -connections on level surfaces in a Hessian domain
- 10:10 – 11:00 Matsuzoe, Hiroshi (Nagoya Inst. Tech.)
Geometry of deformed exponential families
- 11:20 – 12:10 Hashimoto, Hideya (Meijo Univ.)
On decomposition of Stiefel manifolds by G_2 and $Spin(7)$
- 12:15 – 14:00 lunch

Afternoon Session Chairman:

- 14:00 – 14:50 Petkov, Alexander & Ivanov, Stefan (Sofia Univ.)
The sharp lower bound of the first eigenvalue of the sub-laplacian on a quaternionic contact manifold
- 15:10 – 16:00 Ivanov, Stefan & Vassilev, Dimiter & Minchev, Ivan (Sofia Univ.)
Hypersurfaces of Quaternionic Manifolds
- 16:20 – 17:10 Discussions
- 17:15 – 17:30 closing
- 19:00 – Dinner: "Ivan-Assen" Restourant, Tsarevets hill square.

September 7 (Fri)

- 9:00 – excursion
 traditional and historical view of Bulgaria

Organizers Adachi, Toshiaki (Nagoya Institute of Technology)
 Bouyuklieva, Stefka (Veliko Tarnovo Univ.)
 Hashimoto, Hideya (Meijo Univ.)
 Hristov, Milen (Veliko Tarnovo Univ.)