

**The International Conference "Differential Geometry and Dynamical Systems 2012"**

29 August - 2 September 2012 \* at Callatis High-School \* Mangalia, Romania

## (DGDS-2012) \* SCIENTIFIC PROGRAM

**Registration \* Wednesday and Thursday (29-30 August 2012) \* The Callatis High-School - Mangalia****Thursday, 30 August 2012 [AM]****OFFICIAL OPENING CEREMONY and ADDRESSES \* 8:50-9:10****COFFEE BREAK****Chairmen: G. Ishikawa and S. Izumiya****9:30-11:30**

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|----|---|---------|
| 1. | Differential geometry on spacelike submanifolds in de Sitter space and singularity theory, Masaki Kasedou | 25' +5' |
| 2. | Singularities of tangent surfaces in Cartan's split G2-geometry, Goo Ishikawa                             | 25' +5' |
| 3. | Total lightcone curvatures of spacelike submanifolds in Lorentz-Minkowski space, Shyuichi Izumiya         | 25' +5' |
| 4. | On the geometry of bundle of accelerations, Ali Suri  | 25' +5' |

**Chairmen: V. Prepeleță and P. Popescu****11:30-13:00**

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|----|---|---------|
| 5. | On singular non-holonomic geometry, Paul Popescu, Marcela Popescu                                       | 25' +5' |
| 6. | Algorithm for invariant subspaces and $rD$ systems, Tiberiu Vasilache, Valeriu Prepeleță, Mona Doroftei | 25' +5' |
| 7. | Laplacian on the complex Lie algebroid, Morteza Mirmohammad Rezaii, Zahra Pirbodaghi                    | 25' +5' |

**Thursday, 30 August 2012 [PM]****Chairmen: A. Meson and B. Bidabad****Section A  
16:00-18:00**

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|----|---|---------|
| 1. | Convergence of the barycenter of measures from Fuchsian action groups, Alejandro Meson and Fernando Vericat | 15' +5' |
| 2. | Symmetries and conservation laws in higher order geometry, Florian Munteanu                                 | 15' +5' |
| 3. | Weyl connections on manifolds endowed with certain structures, Cornelia Livia Bejan, Novac-Claudiu Chiriac  | 15' +5' |
| 4. | Conformal transformation of scalar curvature Finsler manifolds, Behroz Bidabad                              | 15' +5' |
| 5. | On the submanifolds in the geometry of the homogeneous Finsler prolongation, Alexandru Oană                 | 15' +5' |
| 6. | Multi-time Kosambi-Cartan-Chern invariants, Mircea Neagu  | 15' +5' |

**Chairmen: L. Popescu and C.E. Hrețcanu****Section B  
16:00-18:00**

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|----|--|---------|
| 1. | Conformal mappings preserving the Einstein tensor of Weyl spaces, Merve Gurlek, Gulcin Civi          | 15' +5' |
| 2. | Cyclic parallel CR submanifolds in a complex space form, Tee-How Loo                                 | 15' +5' |
| 3. | On control affine systems, Liviu Popescu   | 15' +5' |
| 4. | On some properties of metallic Riemannian manifolds, Cristina Elena Hrețcanu, Mircea Crășmăreanu     | 15' +5' |
| 5. | On a class of singular vector subbundles, Marcela Popescu, Paul Popescu                              | 15' +5' |
| 6. | On the stability of transverse locally conformally symplectic structures, Cristian Ida, Paul Popescu | 15' +5' |

**FESTIVE DINNER \* The restaurant "CUPIDON"****h: 19:00**

**Friday, 31 August 2012 [AM]**

	<b>Chairman: V. Balan</b>	<b>Section A 9:00-10:40</b>
1.	Multitime optimal control with second order PDEs constraints, Constantin Udriște	15' +5'
2.	Optimal control problems on distributions, Constantin Udriște	15' +5'
3.	Multitime optimal control on Riemannian manifolds, Andreea Bejenaru, Constantin Udriște	15' +5'
4.	Controlled least squares approximations of Tzitzéica surfaces, Vasile Arsinte, Constantin Udriște	15' +5'
5.	Group law on the Folium of Descartes, Pricopie Steluța, Constantin Udriste	15' +5'
	<b>Chairmen: V. Retchnoy and M. Pîrvan</b>	<b>Section B 9:00-10:40</b>
1.	Integration in Lie calculus, Vitali Retchnoy	25' +5'
2.	Multitime prolongations of single-time PDEs, Laura Petrescu, Laura Matei, Monica Pîrvan	25' +5'
3.	Optimal control problems with higher order ODEs restrictions, Savin Treanță, Constantin Udriște	15' +5'
4.	Winds generated by flows and Riemannian metrics, Savin Treanță, Dreghici Veronica, Otobîcu Elena	15' +5'
	<b>COFFEE BREAK</b>	
	<b>Chairman: M. Neagu</b>	<b>Section A 10:50-12:10</b>
6.	Minimizing curvilinear integral functionals depending on curves, Ionel Tevy, Constantin Udriște	15' +5'
7.	Multi-time control strategies for skilled movements, Manuela Iliuță, Ionel Tevy, Constantin Udriște	15' +5'
8.	Sub-Riemannian geometry and optimal control for Lorenz-induced distributions, Vladimir Balan, Constantin Udriște, Ionel Tevy	15' +5'
9.	Implications of chaos theory in macroeconomics, Florin Munteanu, Constantin Udriște, Dorel Zugrăvescu	15' +5'
	<b>Chairmen: Falleh Al-Solamy and M. Anastasiei</b>	<b>Section B 10:50-11:50</b>
5.	Banach Lie algebroids and Dirac structures, Mihai Anastasiei	25' +5'
6.	On a statistically-derived Finslerian $m$ -th root metric provided by the Garner biological model, Vladimir Balan, Jelena Stoianov	25' +5'
	<b>General Assembly of BSG</b>	<b>Section A 12:20-12:30</b>

*Social Programme: excursion and wine tasting from Dobrogean wineries.*

## Saturday, 1 September 2012 [AM]

	<b>Chairmen: C. Udriște and V. Arsinte</b>	<b>9:00-10:20</b>
1.	On certain variational calculus problems, Ana-Maria Teleman	15' +5'
2.	Flows on Riemann surfaces, Constantin Udriște, Ionel Tevy, Romeo Bercia	15' +5'
3.	Multitime stochastic maximum principle with multiple integral cost, Constantin Udriște, Virgil Damian	15' +5'
4.	Minimal control energy in multitime controllability, Cristian Ghîu, Constantin Udriște	15' +5'
*	Harmonic maps on Hessian manifolds relative to alpha-connections, Keiko Uohashi	
*	A geometrical overview of a mathematical model of malaria infection, Camelia Pop Arieșanu, Camelia Petrișor	
*	On a theorem by Elie Cartan, Liviu Nicolescu, Gabriel-Teodor Pripoae, Radu Gogu	
*	Eta-pseudolinearity on differentiable manifolds, Cristina-Liliana Pripoae, Gabriel-Teodor Pripoae, Vasile Preda	
*	Remarkable Finsler KCC hypersurfaces related to 2-dimensional phase transition phenomena, Vladimir Balan, Halina Grushevskaya, Nina Krylova, Alexandru Oană	
*	Several properties regarding the Lorentz group parameters and transitivity equations, E. Ovsyuk, O. Veko, M. Neagu, V. Balan, V. Redkov	
*	Grafts and compactness of complex algebraic varieties. Open problems, Adrian Constantinescu * [contributed/re-programmed]	
	<b>COFFEE BREAK</b>	
	<b>Chairmen: G. Bogoslovsky and E. Malkowsky</b>	<b>Section A 10:45-13:50</b>
1.	Some new BK spaces and their dual spaces, Eberhard Malkowsky, Vesna Velickovic	25' +5'
2.	Hyperbolic fields: basic properties and perspectives of applications, Dmitry Pavlov	25' +5'
3.	Essentials of theory of functions over variables of polynumber type, Sergey Kokarev	25' +5'
4.	Preliminary investigations of hyperbolic fields, Viktor Panchelyuga, Marina Panchelyuga, Dmitry Pavlov, Sergey Kokarev	25' +5'
5.	Partially anisotropic Finslerian space-time and its modification arising from spatial and time inversions, George Bogoslovsky	20' +5'
6.	The inner geometry of indicatrix in the Berwald-Moor spacetime, George Bogoslovsky	20' +5'
7.	Vectors and jet prolongations of projectable planar-characteristic vector fields, Valentin Gabriel Cristea	15' +5'
	<b>Round table [RI-HSGP - Russian Federation]: <i>Multi-time Finsler Geometry</i></b>	<b>13:50-14:30</b>
	<b>DGDS-2012 Conference closing ceremony</b>	<b>Section A</b>

**\* POSTERS \***

**9:00-10:20**