

# The XIII-th International Conference "Differential Geometry and Dynamical Systems"

10-13 October 2019, University Politehnica of Bucharest - Romania

## The Conference Program

[vn. 13.0 \* 27.11.2019]

<b>THURSDAY, 10 October 2019 * First Conference Day</b>		
<b>Registration: [h. 9:00-10:00] * Floor 4 * Room R-412 / Rectorate Building</b>		
<b>[Thursday] The noon session [h. 13-18:00] * Location: Senate Room (floor 2, Rectorate building)</b>		
		<b>13:00-13:15</b>
<i>Opening ceremony</i>		<b>15'</b>
	<b>Chairman: Vladimir Rovenski</b>	<b>13:15-14:45</b>
1.	A review of the geometric nature of Einstein's theory, Graham Hall	<b>25' +5'</b>
2.	Infinitesimal symmetries in the Monster Towers; Piotr Mormul, Fernand Pelletier	<b>25' +5'</b>
3.	Variational and PDE-based image compression models: a survey; Tudor Barbu	<b>25' +5'</b>
<i>COFFEE BREAK - 15'</i>		
	<b>Chairman: Graham Hall</b>	<b>15:00-16:30</b>
4.	Deforming convex bodies in Minkowski Geometry; Vladimir Rovenski	<b>25' +5'</b>
5.	A trans-Sasakian manifold with the parallel (CHR) <sub>3</sub> -curvature tensor; Koji Matsumoto	<b>25' +5'</b>
6.	On the cut locus of Randers surfaces; Sorin Vasile Sabau	<b>25' +5'</b>
	<b>Chairmen: Ivailo Mladenov and Eberhard Malkowski</b>	<b>16:30-18:00</b>
7.	Hamiltonian forms for nonholonomic equations with nonlinear constraints; Marcela Popescu, Paul Popescu	<b>25' +5'</b>
8.	Kink-type solitons for the nonlinear model in microtubules, Armando Ciancio, Haci Mehmet Baskonus, Carlo Cattani	<b>25' +5'</b>
9.	Curvature properties of Sasakian metrics on second order tangent bundle; Abdullah Magden, Aydin Gezer, Kubra Karaca	<b>25' +5'</b>

<b>FRIDAY, 11 October 2019</b>		
<b>[Friday] The morning session [h. 9:00-12:30] * Location: UPB (red) Library Bldg. A, Floor 3, Room 3.2</b>		
	<b>Chairmen: Koji Matsumoto and Sorin Sabău</b>	<b>9:00-10:00</b>
1.	A thermodynamic model for population growth with relaxation phenomena, Vincenzo Ciancio, Antonella Lupica, Annunziata Palumbo	25' +5'
2.	Flatness produced by some geometric PDEs; Iulia Elena Hirică, Constantin Udriște, Gabriel Pripoe, Ionel Tevy	25' +5'
<i>COFFEE BREAK - 30'</i>		
	<b>Chairmen: Vincenzo Ciancio and Armando Ciancio</b>	<b>10:30-12:15</b>
3.	Isometric or harmonic mappings of complete Riemannian manifolds, Tran Quoc Binh	25' +5'
4.	D-general warping manifolds; Cornelia-Livia Bejan (communicated by Constantin Udriște)	10' +5'
5.	Matrix transformations and fixed point iterations; Eberhard Malkowsky	25' +5'
6.	Riemann-Lagrange geometry for starfish/coral dynamical system; Mircea Neagu	25' +5'
<i>LUNCH BREAK - 2h 45'</i>		
<b>[Friday] The afternoon session [h. 15:00-18:05] * Location: UPB (red) Library Bldg. A, Floor 3, Room 3.2</b>		
	<b>Chairmen: Viktor Red'kov and Piotr Mormul</b>	<b>15:00-18:05</b>
7.	Multitemporal nonlinear Schrodinger PDE; Cristian Ghiu, Lavinia Laura Petrescu, Constantin Udriște	25' +5'
8.	Entropy of Reissner-Nordstrom 3D black hole in Roegenian economics; Constantin Udriște, Massimiliano Ferrara, Ionel Tevy, Dorel Zugrăvescu, Florin Munteanu	25' +5'
9.	Information Geometry in Roegenian Economics; Comstantin Udriște, Ionel Tevy	25' +5'
<i>COFFEE BREAK - 15'</i>		
10.	Multitemporal KdV solitons; Lavinia Laura Petrescu, Constantin Udriște	25' +5'
11.	Multidimensional iterative processes with diagonal evolution; Bejenaru Andreea, Pîrvan Monica	25' +5'
12.	On bi-slant submersions; Cem Sayar, Mehmet Akif Akyol and Rajendra Prasad	15'+5'
<b>*** General Assembly of the Balkan Society of Geometers ***</b>		<b>20'</b>
<b>*** Welcome Party [h.19:30-22:00] ***</b>		

**SATURDAY, 12 October 2019****[Saturday] The morning session [h. 9:00-13:15] \* Location: The BN bldg. \* Floor 0 \* Room BN-s04**

	<b>Chairman: Tudor Barbu and Vesna Veličković</b>	<b>9:00-13:15</b>
1.	Left invariant Hermitian structures on $CH^2$ and $RH^4$ ; Srdjan Vukmirovic, Marijana Babic, Andrijana Dekic	25' +5'
2.	Visualization of Enneper's surface by line graphics; Vesna Velickovic	25' +5'
3.	On the geometrization of vector fields, Gabriel Pripoe	25' +5'
<i>COFFEE BREAK - 15'</i>		
4.	Theory for a spin 3/2 particle in electromagnetic and gravitational fields, spherical symmetry; Alina Ivashkevich, Nina Krylova, Vasily Kisel, Viktor Red'kov	15' +5'
5.	Vector particle with anomalous magnetic and electric quadrupole moments in the Coulomb field: separating the variables, nonrelativistic approximation, analysis of Frobenius solutions; Artem Koral'kov, Yanina Voynova, Elena Ovsyuk, Viktor Red'kov	15' +5'
6.	Gosset' polytope and del Pezzo surfaces; connections with Physics and Neuroscience; Ovidiu Păsărescu	25' +5'
7.	Candecomp/Parafac and HO-SVD decompositions in the Finslerian framework; Vladimir Balan	15' +5'
8.	Inequalities for statistical submanifolds, Adela Mihai	25' +5'
9.	Parameterizations of Delaunay surfaces from scratch, Ivailo Mladenov, Vladimir Pulov	25' +5'
<b>[Saturday] Poster session: 9:00-12:00</b>		
P1.	Classes of concave mappings and related optimization; Octav Olteanu, Janina Mihaela Mihailă	***
P2.	The hydrogen-like atom: 2D representation of its orbital types; Diana Rodica Constantin, Valentin Ioan Niculescu, Agneta Anthoaneth Mocanu, Flavia Nacu, Erika Varga-Verebelyi	***
P3.	Influence of domain growth on first-order phase transitions of generalized Newman-Unti-Tamburino cosmological model; Halina Grushevskaya, Nina Krylova, George Krylov (communicated by Vladimir Balan)	***
P4.	Extrinsic spherical depth in Hilbert manifolds; Seunghee Choi, Victor Pătrăngenaru, Vladimir Balan	***
P5.	Spin 1 particle with additional electromagnetic moments in the external Coulomb field, applications of the KCC-theory; Nina Krylova, Yanina Voynova, Vladimir Balan	***

**Conference Closing Ceremony [13:15-13:30] \* The BN bldg. \* Floor 0 \* Room BN-s04****SUNDAY, 13 October 2019 \* Cultural program - Bucharest tour \* on demand**