SEENET-MTP Office Nis
Faculty of Sciences and Mathematics,
University of Nis, Serbia

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Department of Physics
Faculty of Mathematics and Natural Sciences,
University of Craiova,
Romania

THE JOINT MEETING
ON QUANTUM FIELD THEORY AND NONLINEAR DYNAMICS

24-28 September 2014, Sinaia, Romania

- ***The 9-th Workshop "Quantum Field Theory and Hamiltonian Systems" (QFTHS)***

Supported by UNESCO Venice Office, Contract CFS 14-20, no. 4500239205, and by ROSA, Contract 72/2013.

- ***Workshop on "Nonlinear dynamics" (ND)***

In the frame of FP7-PEOPLE-2012-IRSES-316338 and of the grant 19C/2014 from University of Craiova.

List of contributions

(Alphabetical order of first authors. In red – the author who will present the paper)

ORAL PRESENTATIONS - QFTHS

- Boyka Aneva - *Algebraic Methods to Many-Particle Systems*.
- Ignatios Antoniadis - *Naturalness and string phenomenology in the LHC era.*
- E.M. Babalic, C.I. Lazaroiu – *Foliated backgrounds of M-theory compactifications.*
- Glenn Barnich - *The quantum Coulomb solution as a coherent state of unphysical photons. A physical toy model for black hole microstates.*
- Afrodita Liliana Boldea, Costin-Radu Boldea - *On the solvability and the associated integrable hierarchy of the Gross-Pitaevskii equation*.
- Lars Brink – *Counterterms in gravity and N=8 Supergravity*.
- Irinel Caprini - *Functional methods for testing quark-hadron duality violation in QCD.*
- Eugen Cioroianu - *Dynamical aspects of a massless tensor gauge field of degree (k+1).*
- M. Ciubancan, Marina Rotaru, G. Stoicea - *Parallel processing of large data sets in particle physics*.
- Radu Constantinescu – *Generalized conditional symmetries and related solutions of the Klein-Gordon-Fock equation with central symmetry.*
- Ion Cotaescu - *Covariant representations of the de Sitter isometry group.*
- Ion Cotaescu, Cosmin Crucean, Ciprian A. Sporea - *Elastic scattering of Dirac fermions on Schwarzschild Black Holes.*
- Dragoljub D. Dimitrijevic, Goran S. Djordjevic and Milan Milosevic - *Canonical transformation and tachyon-like "particles".*
- Marija Dimitrijevic – *Noncommutative gravity via SO(2,3) noncommutative gauge theory*
- Branko Dragovich - *On Cosmological Solutions of Nonlocal Modified Gravity*.
- Emilian Dudas - *Aspects of inflation in supergravity*.

- Vladimir Gerdjikov, Dimitar Mladenov, Aleksander Stefanov, Stanislav Varbev - *MkDV-type equations related to the affine Lie algebra A_r*
- Vladimir Gerdjikov, Dimitar Mladenov, Aleksander Stefanov, Stanislav Varbev - *MkDV-type equations related to the affine Lie algebra D_4*
- Vladimir Gerdjikov - *Lax operators and affine algebras. Spectral properties and Hamiltonian Structures*.
- Dan Grecu, Anca Visinescu, Adrian Stefan Carstea, Alex.T.Grecu – *Statistical approach to modulation instability in nonlinear systems. Review*.
- Dan Radu Grigore – *The Higgs sector in the causal approach*
- Marc Henneaux - *Topics in 2+1 anti-de Sitter higher spin gravity.*
- Aurelian Isar - *Quantum correlations in Gaussian bipartite open systems.*
- Larisa Jonke - *Dirac structures on nilmanifolds and coexistence of fluxes*.
- Andrei Micu - *Supersymmetric compactifications of M-theory with M2 brane potentials*.
- Argyris Nicolaidis – *Relational logic (with applications to Quantum Mechanics, String Theory, Statistical Mechanics).*
- Paul Popescu - *Lagrangians and Hamiltonians related to foliations.*
- Silviu Sararu - *On the quantization of the massive MCS model*.
- Francesco Toppan - *Supersymmetric and non-supersymmetric superconformal mechanics*.
- Mihai Visinescu - *Superintegrability in toric Sasaki-Einstein spaces.*
- George Zoupanos - *New Challenges in Unification* (I+II).

ORAL PRESENTATIONS - ND

- Maria-Magdalena Boureanu, Cristian Udrea - *Elliptic problems with variable exponents and no-flux boundary conditions*.
- Liliana Bucur - *The study of some dynamical processes from financial market*.
- Dana Constantinescu, Marian Negrea, and Iulian Petrisor - *Regular versus chaotic dynamics in some systems generated by area-preserving maps. Applications to the study of some transport phenomena*.
- Raluca Efrem - *Bifurcation analysis in a 3D symmetric system of interest in plasma physics.*
- Aurelia Florea - *Some inequalities on time scales with applications in dynamic equations*.
- Valery Gromak - *On solutions of Korteweg-de Vries equations of the higher order related to solutions of Painlevé equations*.
- Maoan Han - *Limit cycle bifurcations near a 2-polycycle or double 2-polycycle of planar systems.*
- Adela Ionescu - *Nonlinear dynamics of the mixing flow mathematical model. The parameter influence on the trajectory behavior*
- Cristian Lazureanu - *Using Matcont for bifurcations in neuronal models*
- Jibin Li - *On the study of two classes of singular nonlinear wave equations: dynamical system approach.*

- Na Li - *The lower bound of limit cycles appearing from the perturbation of a system with a multiple line of critical points.*
- Romulus Militaru and Florian Munteanu - *Computational Analysis of Conservation Laws for Mathematical Models of the Multi-Species Interactions.*
- Mihaela Racila, Jean-Marie Crolet - *Numerical simulations and some applications in the cortical bone behaviour and thermo ablation in living tissues.*
- Valery Romanovsky - *Integrability and bifurcations of polynomial systems of ODEs.*
- Ionel Roventa - *The controllability of a system modeling the motion of a swimmer moving in a viscous fluid.*
- Traian Surtea - *Compatibility conditions for a potential on a dynamical system.*
- Gheorghe Tigan - *Applications of dynamical systems in neuronal models*
- Cristian Vladimirescu - *Stability problems for a damped nonlinear oscillator.*
- Yanqin Wang - *Multiple positive periodic solutions for a delayed predator-prey system with Beddington-DeAngelis functional response and harvesting terms.*
- Zhiheng Yu - *Polynomial solutions of the polynomial-like iterative equation***.**
- Qiuyan Zhang - *Hopf bifurcation of a ratio-dependent predator-prey system with Holling type III functional response.*

POSTER SESSION

- Nicoleta-Corina Babalic – *On the family of Tzitzeica Equations and the properties of their soliton solutions.*
- Mihaela Baloi - *Production of massive scalar particles in early Universe.*
- Virgil-Nicolae Cancea - *Diffusion processes in the presence of magnetic stochastic turbulence.*
- Dana Constantinescu, Marian Negrea, Iulian Petrisor - *Generalization of a fractional model for the transport equation including external perturbations.*
- Carmen Ionescu, Emilian Panaintescu, Iulian Petrisor, Mihai Stoicescu – *Nonlinear control of chaotic circuits.*
- Tatiana Mihaescu, Aurelian Isar - *Suppression of entanglement of two-mode Gaussian open systems.*
- Marian Negrea, Iulian Petrisor, Dana Constantinescu - *Particle dynamics in electrostatic turbulence and weakly inhomogeneous tokamak magnetic field.*
- Serban Suciu, Aurelian Isar - *Gaussian geometric discord of two-mode systems in a thermal environment.*

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