

Mathematics,

University of Nis, Serbia







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)

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Workshop on "Nonlinear dynamics" (ND)

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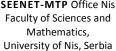
List of contributions

(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.







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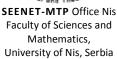
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- Vladimir Gerdjikov, Dimitar Mladenov, Aleksander Stefanov, Stanislav Varbev *MkDV-type* equations related to the affine Lie algebra A_r
- Vladimir Gerdjikov, Dimitar Mladenov, Aleksander Stefanov, Stanislav Varbev *MkDV-type* equations related to 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.







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- 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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