

**MARIE CURIE'S INTERNATIONAL RESEARCH STAFF
EXCHANGE SCHEME (IRSES) IN THE 7TH EUROPEAN
FRAMEWORK PROGRAM**

Georgian National Academy of Sciences

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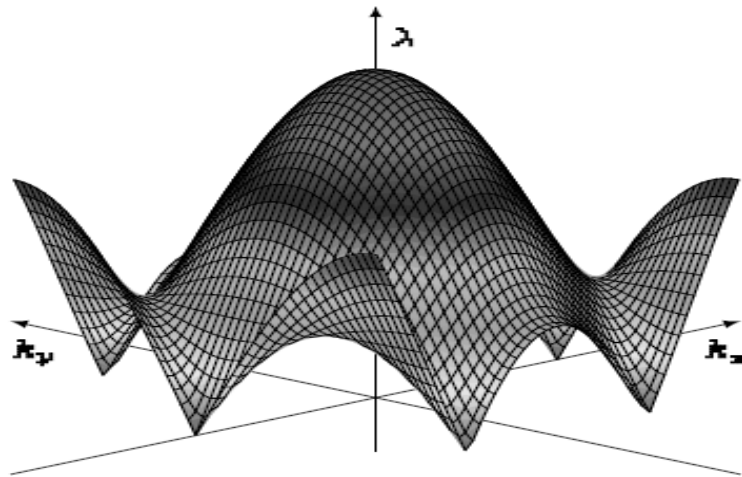
University of Palermo

Muskhelishvili Institute of Computational Mathematics

P R O G R A M

of the International Conference

Lie Groups, Differential Equations and Geometry



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June 10-22, 2013, Batumi, Georgia

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17 June (Chairman K. Strambach)

- 10:00 – 10:45** **Opening** (G. Tavamaishvili, R. Gamkrelidze, A. Bakuridze, A. Lashkhi, I. Tavkheldidze, K. Strambach, O. Rossi, P. Nagy, L. Kozma, C. C. Rensing, O. Zumburidze, Cheng Xinyue, G. Giorgadze)
- 10:45 – 11:30** **G. Giorgadze and M. Jibladze** – Different Ways to Construct a Universal Set of Quantum Gates
- 11:30 – 12:15** **R. Gamkrelidze** – Pontryagin Maximum Principle and Calculus of Variations
- 12:15 – 13:00** **Á. Figula** – Lie Groups as Multiplication Groups of Topological Loops
- 13:00 – 14:00** **Lunch**
- 14:00 – 14:45** **G. Oniani** – On the Relationship Between Rectangular Convergence and Spherical Convergence of Multiple Haar Series
- 14:45 – 15:15** **T. Kemoklidze** – Endomorphisms of a Cotorsion Hull and Full Transitivity
- 15:15 – 15:45** **R. Bitsadze, M. Menteshashvili** – On the Initial-Characteristic Problem for a Nonlinear Oscillation Equation
- 15:45 – 16:15** **D. Tavkheldidze, Z. Mchedlishvili, M. Razmadze** – Inverse Geometry and Kinematic Analysis of Tripod Mechanisms
- 16:15 – 16:45** **I. Ramishvili, P. Dvalishvili** – Continuous Dependence of the Minimum of Integral Functional with Respect to Perturbations of the Right-Hand Side of One Class of Differential Equation and an Integrand
- 16:45 – 18:00** **Discussion, Collaboration**

18 June (Chairman L. Kozma)

- 10:00 – 10:45** **A. Gamkrelidze, G. Hotz, L. Varamashvili** – New Invariants for the Graph Isomorphism Problem
- 10:45 – 11:30** **T. Kadeishvili** – Minimality Theorems and their Applications in Topology and Physics
- 11:30 – 12:15** **B. Mesablishvili** – On Descent Cohomology
- 12:15 – 12:45** **G. Berishvili** – Hamiltonian
- 13:00 – 14:00** **Lunch**

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- 14:00 – 14:45** **Z. Sokhadze** – On Multi-Point Boundary Value Problems for Systems of Functional Differential Equations
- 14:45 – 15:15** **Ya. Diasamidze, Sh. Makharadze** – On Complete Semigroups of Binary Relation
- 15:15 – 15:45** **M. Akhobadze, O. Zumburidze, E. Kurtskhalia** – Analysis of the Spatial Economic Processes for Defining the Investment Policy
- 15:45 – 16:15** **D. Magrakvelidze, P. Gurtskaia** – The Uncertainty of the Project Risks and the Ability of Reducing them using Theorem of Entropy
- 16:15 – 16:45** **R. Bitsadze, M. Menteshashvili** – On a Variant of the Characteristic Problem
- 16:45 – 18:00** **Discussion, Collaboration**

19 June (Chairman P. Nagy)

- 10:00 – 10:45** **M. Eliashvili, G. I. Japaridze and G. Tsitsishvili** – The Quantum Group and Harper Equation on a Honeycomb Lattice
- 10:45 – 11:30** **C. G. Bartolone, A. Di Bartolo, G. Falcone** – Derivations of a $(n, 2, 1)$ -Nilpotent Lie Algebra
- 11:30 – 12:15** **X. Cheng** – Riemannian Curvature Properties of (α, β) -Metrics
- 12:15 – 12:45** **T. Tadumadze** – On the Well-Posedness of the Cauchy Problem for a Functional Differential Equation Taking Into Account Variable Delay Perturbation
- 13:00 – 14:00** **Lunch**
- 14:00 – 14:45** **M. Iavichi** – Mathematical Model of Social Educational Network
- 14:45 – 15:15** **M. Gabidzashvili** – A Weighted Inequality for a Potential Type Integral
- 15:15 – 15:45** **O. Surmanidze** – Weakly Locally Compact Topological Abelian Groups and their Basic Properties
- 15:45 – 16:15** **M. Jibladze** – The Quark Model of the Nuclear Kernel
- 16:15 – 16:45** **D. Devadze, V. Beridze** – Optimality Conditions and Solution Algorithms of Optimal Control Problems for a Nonlocal Boundary Value Problem
- 16:45 – 18:00** **Discussion, Collaboration**

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20 June (Chairman Á. Figula)

- 10:00 – 10:45** I. Tavkhelidze, D. Caratelli, J. Gielis, P. E. Ricci – Some properties of “Bulky” Links, Generated by Generalized Möbius Listing’s Bodies GML_4^n
- 10:45 – 11:30** O. Rossi, D. Saunders – Lagrangian and Hamiltonian Duality
- 11:30 – 12:15** A. Lashkhi, T. Kvirikashvili – Classical Configurations in D -Semimodular Lattices
- 12:15 – 13:00** A. B. Zhishchenko, A. A. Mal’tsev – TBA
- 13:00 – 14:00** Lunch
- 14:00 – 14:30** N. Lazrishvili, R. Chagunava – The Oldest Arabic Ciphers in Georgian Written Sources
- 14:30 – 15:00** M. Tsintsadze, G. Tsintsadze – Quantum-Chemical Study of Solvents Effect on the Ability of Pharmaceutical Preparations (Isonicotinohydrazide and its Hydrazones) Complex Formation with Metals
- 15:00 – 15:30** D. Gorgidze, O. Namicheishvili, A. Prangishvili, M. Ramazashvili – A Linear Mathematical Theory of Accelerated Life Testing
- 15:30 – 16:00** T. Bokelavadze, M. Chabashvili – Commutant Series and Nilpotent Varieties of Power Groups
- 16:00 – 16:30** D. Gulua – On the Stability of the Disturbance Algorithm for a Semi-Discrete Scheme of Solution of an Evolutionary Equation in the Banach Space
- 16:30 – 17:00** N. Dikhaminija, J. Rogava, M. Tsiklauri – Operator Splitting for Quasi-linear Abstract Hyperbolic Equation
- 16:30 – 18:00** Discussion, Collaboration

21 June (Chairman O. Rossi)

- 10:00 – 10:45** G. Khimshiashvili – Complex Geometry of Polygonal Linkages
- 10:45 – 11:30** K. Strambach – TBA
- 11:30 – 12:15** V. Tarieladze, E. Martín-Peinador – On the Cardinality of the Family of Locally Convex Compatible Topologies
- 12:15 – 13:00** M. Golasiński, D. L. Gonçalves, R. Jiménez – Free Actions of Groups on Homotopy Circles
- 13:00 – 14:00** Lunch

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- 14:00 – 14:30** **V. Kvaratskhelia, V. Tarieladze, N. Vakhania** – Characterization of T -Subgaussian Random Elements in a Separable Hilbert Space
- 14:30 – 15:00** **Z. Abashidze** – Problem of Elasticity and Plasticity for the Square Plate Weakened by the Hole with Partially Unknown Boundary
- 15:00 – 15:30** **L. Giorgashvili, E. Elerdashvili, M. Kharashvili, K. Skhvitaridze** – The Representation Formula of a General Solution of the Homogeneous System of Differential Equations
- 15:30 – 16:00** **M. Surguladze** – TBA
- 16:00 – 16:30** **T. Sarajishvili** – About Realization of One Network Algorithm
- 16:30 – 18:00** **Discussion, Collaboration**

22 June (Chairman A. A. Mal'tsev)

- 10:00 – 10:45** **A. Milnikov, A. Prangishvili** – Algebraic Approach in Pseudospectra Estimation
- 10:45 – 11:30** **P. T. Nagy** – New developments in holonomy theory of differentiable systems
- 11:30 – 12:00** **L. Shapakidze, M. Kvinikadze, L. Antadze** – On the Nonlinear Dynamical Systems of Amplitude Equations Corresponding Intersections of Bifurcations in the Flow Between Permeable Cylinders
- 12:00** **Closing of the Conference**
- 19:00** **Banquet**

The sessions hold at

Shota Rustaveli Batumi State University
35 Ninoshvili Str., Batumi 6010
Georgia

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