

International Conference on Modern Problems in Applied Mathematics

Dedicated to the
**90th Anniversary of the
Iv. Javakhishvili Tbilisi State University**
&
**40th Anniversary of the
I. Vekua Institute of Applied Mathematics**

7-9 October, 2008, Tbilisi

Program



INTERNATIONAL CONFERENCE
ON
"MODERN PROBLEMS IN APPLIED MATHEMATICS"



Dedicated to the 90th Anniversary of the
Iv. Javakhishvili Tbilisi State University
and
40th Anniversary of the I.Vekua Institute of Applied Mathematics

ORGANIZERS

Iv. Javakhishvili Tbilisi State University
Faculty of Exact and Natural Sciences
I.Vekua Institute of Applied Mathematics of Iv. Javakhishvili Tbilisi State University
Georgian Mathematical Union
Georgian National Committee of Theoretical and Applied Mechanics
Tbilisi International Centre of Mathematics and Informatics

International Scientific Committee

Fikret Aliev (Azerbaijan), Nikoloz Avazashvili, Lenser Aghalovyan (Armenia), George Akhalaya, Mikheil Amaglobeli, Jemal Anthidze, Akaki Arsenashvili, Matias Baas (Austria), Mikheil Bacheleyshvili, Vagarshak Belubekyan (Armenia), Ramaz Botchorishvili, Natalia Chinchaladze (Secretary), Ana Danelia, Teimuraz Davitashvili, Robert P. Gilbert (USA), Ushangi Goginava, Leri Gogoladze, David Gordeziani, Paolo Podio-Guidugli (Italy), George Hsiao (USA), George Jaiani (Chairman), Temuri Jangeladze, Alexandre Kharazishvili, Sergo Kharibegashvili, Nuri Khomasuridze, Archil Kipiani, Gela Kipiani, Kamil Mansimov (Azerbaijan), Tengiz Meunargia, Bernadette Miara (France), Elizbar Nadaraya, David Natroshvili, Khimur Rukhaya, Jemal Peradze, Omar Purtukhia, Ketevan Shavgulidze, Tamaz Tadumadze, Merab Svanadze, Jondo Sharikadze, Nodar Valishvili, Tamaz Vashakmadze

LOCAL ORGANIZING COMMITTEE

Nikoloz Avazashvili, Natalia Chinchaladze (Vice-Chairman), Temur Davitashvili, George Geladze, Manana Gvaramadze, George Jaiani (Chairman), Albert Katamadze, Gela Kipiani (Vice -Chairman), Khimur Rukhaya (Vice -Chairman), Jondo Sharikadze (Vice -Chairman), Mary Sharikadze, Tengiz Tetunashvili, Manana Tevdoradze, Lali Tibua, George Todua (Secretary)

Editor: Natalia Chinchaladze

საერთაშორისო კონფერენცია

გამოყენებითი მათემატიკის თანამედროვე პრობლემები

ექლენება

ივ. ჯავახიშვილის სახელობის
თბილისის სახელმწიფო
უნივერსიტეტის 90 წლისთავს

და

ი. ვეკუას სახელობის გამოყენებითი
მათემატიკის ინსტიტუტის 40
წლისთავს

7-9 ოქტომბერი, 2008, თბილისი

პ რ ო ბ რ ა მ ა



საერთაშორისო კონფერენცია



"გამოყენებითი მათემატიკის თანამედროვე პრობლემები"

ექლენება

ივ. ჯავახიშვილის სახელობის თბილისის სახელმწიფო
უნივერსიტეტის 90 წლისთავს
ი. ვეკუას სახელობის გამოყენებითი მათემატიკის ინსტიტუტის 40
წლისთავს

პრობანიატორები

ივ. ჯავახიშვილის სახ. თბილისის სახელმწიფო უნივერსიტეტი
ზუსტი და საბუნებისმეტყველო მეცნიერებათა ფაკულტეტი
ი. ვეკუას სახ. გამოყენებითი მათემატიკის ინსტიტუტი
საქართველოს მათემატიკოსთა კავშირი
საქართველოს ეროვნული კომიტეტი თეორიულ და გამოყენებით
მექანიკაში
თბილისის საერთაშორისო ცენტრი მათემატიკასა და ინფორმატიკაში

საერთაშორისო სამეცნიერო კომიტეტი

ფიკრეტ ალიევი (აზერბაიჯანი), ნიკოლოზ ავაზაშვილი, ლენსერ
აგალოვიანი (სომხეთი), გიორგი ახალაია, მიხეილ ამადლობელი, ჯემალ
ანთიძე, აკაკი არსენაშვილი, მატეას ბაასი (აგსტრია), მიხეილ
ბაშელეიშვილი, ვაგარშაკ ბელუბეკიანი (სომხეთი), რამაზ ბოჭორიშვილი,
რობერტ პ. გილბერტი (აშშ), უშანგი გოგინავა, ლერი გოგოლაძე, დავით
გორდეზიანი, პაოლო პოდოლ გუიდული (იტალია), თეიმურაზ
დავითაშვილი, ანა დანელია, თამაზ თადეუმაძე, ნოდარ ვალიშვილი, თამაზ
ვაშაყმაძე, ქამილ მანსიმოვი (აზერბაიჯანი), ბერნადეტ მირა
(საფრანგეთი), თენგიზ მეუნარგია, ელიზბარ ნადარაია, დავით
ნატროშვილი, ხიმურ რუხაია, მერაბ სვანაძე, ჯემალ ფერაძე, ომარ
ფურთუხია, არჩილ ყიფიანი, გელა ყიფიანი, ქეთევან შავგულიძე, ჯონდო
შარიქაძე, ჯორჯ შო (აშშ), ნატალია ჩინჩალაძე (მდივანი), ალექსანდრე
ხარაზიშვილი, სერგო ხარიბუგაშვილი, ნური ხომასურიძე, გიორგი ჯაიანი
(თავმჯდომარე), თემური ჯანგველაძე

ლოკალური სპრობანიატორი კომიტეტი

ნიკოლოზ ავაზაშვილი, გიორგი გელაძე, მანანა გვარამაძე, თემურ
დავითაშვილი, მანანა თევდორაძე, გიორგი თოდუა (მდივანი), ხიმურ
რუხაია (თავმჯდომარის მოადგილე), თენგიზ ტეტუნაშვილი, ლალი ტიბუა,
ალბერტ ქათამაძე, გელა ყიფიანი (თავმჯდომარის მოადგილე), ჯონდო
შარიქაძე (თავმჯდომარის მოადგილე), მერი შარიქაძე, ნატალია ჩინჩალაძე
(თავმჯდომარის მოადგილე), გიორგი ჯაიანი (თავმჯდომარე)

რედაქტორი: ნატალია ჩინჩალაძე

Tuesday, 7 October

Ilia Vekua Lecture Hall (VIAM)

11⁰⁰-11⁵⁰ Opening Session

Section: Function Theory

(Chairmen: Goginava U., Gogoladze L., Cochairman: Danelia A.)

Room 316 (TSU, Building 10)

Tuesday, 7 October

Chairman: Oniani G.

- 14³⁰-15⁰⁰ Vakhania N., Kvaratskhelia V.,** On unconditional convergence in Banach spaces with unconditional bases
- 15⁰⁵-15³⁵ Chelidze G.,** On Nordlander's conjecture in the three-dimensional case
- 15⁴⁰-16¹⁰ Danelia A.,** On the modulus of continuity of k -th order of conjugate functions of many variables
- 16¹⁵-16⁴⁵ Oniani G., Tsibadze L.,** Integral representation of analytic and pluriharmonic functions in the unit ball

Wednesday, 8 October

13³⁵-14³⁰ BREAK

Chairman: Tsagareishvili V.

- 14³⁰-15⁰⁰ Goginava U.,** Maximal operators of Fejer means, the restricted maximal operators of Fejer means of double Walsh-Fourier series
- 15⁰⁵-15³⁵ Akhobadze T.,** On the summability of Fourier trigonometric series by the generalized Cesaro method

- 15⁴⁰-16¹⁰ Kopaliani T., Chelidze G.,** On the approximation for existence of positive solutions of second order linear difference equations
- 16¹⁵ - 16⁴⁵ Nadibaidze G.,** On Weyl multipliers for almost everywhere summability of double block-orthogonal series
- 16⁵⁰ - 17²⁰ Gogoladze L., Tsagareishvili V.,** On the sufficient conditions of absolute convergence of double trigonometric series

Section: Complex Analysis and its Applications

(Chairman: Meunargia T., Cochairman: Akhalaia G.)

Council Room (VIAM)

Tuesday, 7 October

Chairman: Meunargia T.

- 12⁰⁰-12³⁰ Bantsuri R.,** Plane elasticity theory problems with partially unknown boundaries
- 12³⁵-13⁰⁵ Kutateladze G.,** Elastic equilibration of semi-plane with straight line cut
- 13¹⁰-13⁴⁰ Chokoraia D.,** The mixed boundary value problem for the spherical zone, when the displacement vector is independent from the thickness coordinate
- 13⁴⁵-14³⁰ BREAK**
- 14³⁰-15⁰⁰ Janjgava R., Zirakashvili N.,** About construction of analytic and numerical solutions of some plane boundary value problem for mixture theory
- 15⁰⁵-15³⁵ Akhalaia G., Manjavidze N.,** Cauchy-Lebesgue classes for Q -holomorphic vectors
- 15⁴⁰-16¹⁰ Meunargia T.,** On the integration of the differential equations system for nonlinear and non-shallow shells

Wednesday, 8 October

Chairman: Akhalaia G.

- 11⁰⁰-11³⁰ **Kokilashvili V., Paataashvili V.**, On Vekua's integral representation of holomorphic functions and their derivatives
- 11³⁵-12⁰⁵ **Gordadze E.**, On the problem of linear conjugation for some boundary lines
- 12¹⁰-12⁴⁰ **Giorgadze G.**, On some problems in the theory of generalized analytic functions
- 12⁴⁵-13³⁰ **Khimshiashvili G.**, Holomorphic curves in loop spaces of 3-folds
- 13³⁵-14³⁰ **BREAK**
- 14³⁰-15⁰⁰ **Aliashvili T.**, Complex points of two-dimensional surfaces
- 15⁰⁵-15³⁵ **Jiqia V.**, On one boundary value problem
- 15⁴⁰-16¹⁰ **Makatsaria G.**, Non-isolateness and infiniteness of the orders of zeroes of the generalized analytic functions
- 16¹⁵- 16⁴⁵ **Qaldani N.**, Some properties of the generalized power functions
- 16⁵⁰- 17²⁰ **Shubladze M.**, On the topology of singularities of analytic functions of several complex variables

Section: Differential Equations and Optimal Control

(Chairman: Tadumadze T., Cochairman: Arsenashvili A.)

Room 234 (VIAM)

Tuesday, 7 October

Chairman: Tadumadze T.
Secretary: Iordanishvili M.

- 12⁰⁰-12³⁰ **Aliev F. , Velieva N.**, Optimization of the system with static feedback by output variable
- 12³⁵-13⁰⁵ **Koplatadze R.**, On a singular boundary value problem for the integro-differential equations
- 13¹⁰-13⁴⁰ **Mammadova G.H., Mammadov Sh.T.**, Solution of the controllability problem for the two-parametric bilinear sequential machines
- 13⁴⁵-14³⁰ **BREAK**
- Chairman: Aliev F.**
Secretary: Alkhazishvili L.
- 14³⁰-15⁰⁰ **Gvaberidze B.**, General approach to the research of stability of solutions in problems of Boolean optimization
- 15⁰⁵-15³⁵ **Tsintsadze Z.**, The extremal principle in quasilinear control systems of neutral type
- 15⁴⁰- 16¹⁰ **Arsenashvili A., Tadumadze T.**, Formulas of variation of solution for variable structure delay differential equation with mixed intermediate condition and their applications in optimal problems.
- 16¹⁵- 16⁴⁵ **Gorgodze N., Ramishvili I.**, Formulas of variation of solution for quasi-linear neutral differential equation with mixed initial condition and their applications in optimal problems

Wednesday, 8 October

Chairman: Koplatadze R.

Secretary: Gorgodze N.

11⁰⁰ -11³⁰ Akhundov H.S., On an implementation of the perturbation to the solution of the non-smooth variational problems

11³⁵ -12⁰⁵ Alkhazishvili L., Iordaisvili M., Formulas of variation of solution for delay controlled differential equation with mixed initial condition and their applications in optimal problems with incommensurable delays in controls

12¹⁰ -12⁴⁰ Guseynova N.Sh., Ahmadov H.I., The analytical solution of the equation of Klein – Fock- Gordon for two-dimensional pionic atom in the presence of a constant homogeneous magnetic field

12⁴⁵ -13³⁰ Giorgadze G.P., On oscillatory properties of third order system of differential equations with deviating arguments

13³⁵ -14³⁰ BREAK

Chairman: Tsintsadze Z.

Secretary: Iordanishvili M.

14³⁰ -15⁰⁰ Koplatadze R., Kvinikadze G., Necessary conditions for existence of positive solutions of second order linear differential equations

15⁰⁵ -15³⁵ Tadumadze T., Optimization of delay controlled systems with non-fixed initial moment and mixed initial condition

Section: Partial Differential Equations

(Chairmen: Jaiani G., Kharibegashvili S., Cochairman: Jangveladze T.)

Room 116 (VIAM)

Tuesday, 7 October

12⁰⁰ -12³⁰ Baghaturia G., On a non-linear version of Goursat problem with partially free characteristic support

12³⁵ -13⁰⁵ Chinchaladze N., On a cylindrical vibration of a double-layer prismatic body

13¹⁰ -13⁴⁰ Jaiani G., Partial differential equations in thin domains

13⁴⁵ -14³⁰ BREAK

14³⁰ -15⁰⁰ Kharibegashvili S., On the characteristic boundary value problems for nonlinear equations with iterated wave operator in the principal part

15⁰⁵ -15³⁵ Rogava J., Tsiklauri M., On error estimation of symmetric decomposition formula for the semigroup

15⁴⁰ - 16¹⁰ Shulaia D., On the solution of boundary value problems for equation of multiple scattering of the light in gaseous media

16¹⁵ - 16⁴⁵ Menteshashvili M., Some non-classical problems for quasi-linear equation

Thursday, 9 October

11⁰⁰ -11³⁰ Jangveladze T., Lobjanidze G., On one nonlocal boundary value problem for fourth order ordinary differential equation and its variational formulation

11³⁵ -12⁰⁵ Surguladze T., About nonhyperbolicity of some equations of motion of viscoelasticity

- 12¹⁰-12⁴⁰** **Usanetashvili M.**, An analogue of the Bitsadze–Samarski’s problem for the equation of mixed type
- 12⁴⁵-13¹⁵** **Vashakmadze T.**, Initial approximations of nonlinear hierarchical models for medium consisting of porous-solid and fluid parts

13⁴⁵-14³⁰ **BREAK**

- 14³⁰-15⁰⁰** **Aptsiauri M., Jangveladze T., Kiguradze Z.**, Large time behavior and numerical solution of nonlinear integro-differential system associated with the penetration of a magnetic field into a substance
- 15⁰⁵-15³⁵** **Jangveladze T., Kiguradze Z., Nikolishvili M.**, On construction and investigation of variable directions scheme for a two-dimensional nonlinear diffusion model
- 15⁴⁰-16¹⁰** **Jangveladze T., Kiguradze Z., Neta B.**, Large time behavior of solutions and finite difference scheme to a nonlinear Integro-differential system

Section: Probability theory and mathematical statistics

Sessions of this section are dedicated to the memory of Prof. Gvanji Mania (1918-1985)

(Chairman: Nadaraya E., Cochairman: Purtukhia O.)

Ilia Vekua Lecture Hall (VIAM)

Tuesday, 7 October

Chairman: Nadaraya E.

- 12⁰⁰-12³⁰** **Nadaraya E., Sokhadze G.**, On representations of integral functional for the estimation of the distribution density

- 12³⁵-13⁰⁵** **Mania M., Tevzadze R.**, Exponential hedging and sufficient filtrations
- 13¹⁰-13⁴⁰** **Glonti O., Jamburia L., Khechinashvili Z.**, The optimal forecasting for the stock price evolution model described by geometrical Gaussian semimartingale with “disorder”

13⁴⁵-14³⁰ **BREAK**

- 14³⁰-15⁰⁰** **Shervashidze T., Tarieladze V.**, Limit theorems for operator Abel summation
- 15⁰⁵-15³⁵** **Buadze T., Nadaraya E., Sokhadze G.**, On the estimation of the Radon-Nikodým densities for solutions of non-linear differential equations with the random right-hand side

Wednesday, 8 October

Chairman: Purtukhia O.

- 11³⁵-12⁰⁵** **Purtukhia O., Jaoshvili V.**, Stochastic derivative of Poisson functionals
- 12¹⁰-12⁴⁰** **Mamporia B.**, Naturalness of concept of the generalized stochastic integral in a separable Banach space the case of $C[0,1]$; weak second order continuous stochastic processes
- 12⁴⁵-13³⁰** **Bokuchava I., Dochviri B., Lominashvili G., Facacia M.**, Reduction in optimal stopping problem with incomplete data
- 13³⁵-14³⁰** **BREAK**
- 14³⁰-15⁰⁰** **Lazrieva N., Toronjadze T.**, Polyak’s averaging for Robbins-Monro type SDE
- 15⁰⁵-15³⁵** **Nadaraya E., Babilua P.**, On the power of the goodness-of-fit test based on Wolverton-Vagner distribution density estimates

Section: Mathematical Modeling and Numerical Analysis

(Chairman: Gordeziani D., Cochairman Davitashvili T.)

Room 203 (VIAM)

Tuesday, 7 October

Chairman: Gordeziani D.

Secretary: Avalishvili M.

12⁰⁰ -12³⁰ Ugulava D., Zarnadze D., On the generalized spline linear algorithms and condition of it's centrality

12³⁵ -13⁰⁵ Berikelashvili G., Mirianashvili M., On the convergence of difference schemes for nonlinear RLW equation

13¹⁰ -13⁴⁰ Berikelashvili G., Gordeziani D., Finite difference schemes for one nonlocal biharmonic problem

13⁴⁵ -14³⁰ BREAK

Chairman: Rogava J.

Secretary: Tsiklauri M.

14³⁰ -15⁰⁰ Peradze J., On the accuracy of an iteration method when solving a system of Timoshenko equation

15⁰⁵ -15³⁵ Avalishvili M., Avalishvili G., Gordeziani D., On mathematical modeling of multilayer prismatic shells consisting of elastic and fluid parts

15⁴⁰ - 16¹⁰ Vashakmadze T., Chikashua R., Arabidze D., Two methods of approximate solution of boundary value problems for ordinary differential equations

16¹⁵ - 16⁴⁵ Chilachava T., The integrodifferential inequalities method for the solving of modeling problems of gravitating gas theory

16⁵⁰ -17²⁰ Davitashvili T., Khantadze A., Tavartkiladze K., Mathematical modeling of some peculiar properties of regional climate change

17²⁵ -17⁵⁵ Geladze G., Davitashvili T., The numerical model of a meteorononhomogeneous air masses interaction in a mesoboundary layer of atmosphere

Wednesday, 8 October

Chairman: Davitashvili T.

Secretary: Geladze G.

14³⁰ -15⁰⁰ Rogava J., Tsiklauri M., The fourth order of accuracy sequential type rational splitting for the semigroup approximation

15⁰⁵ -15³⁵ Rogava J., Tsiklauri M., On construction of high order of accuracy decomposition scheme for non-homogeneous abstract hyperbolic equation on the basis of approximation of sine and cosine operator functions

15⁴⁰ -16¹⁰ Rogava J., Tsiklauri M., The third order of accuracy sequential type rational splitting of evolution problem

16¹⁵ - 16⁴⁵ Davitashvili T., Imnadze T., Begalishvili N., Demetrashvili D., On numerical modeling of emergency spilling oil penetration inshore waters of the black sea

16⁵⁰ - 17²⁰ Davitashvili T., Gordeziani D., Geladze G., Sharikadze M., Investigation of the circumstance of the light-signals at the streets' crossing point influence upon the harmful substances' concentrations distribution by numerical modeling

Section: Foundations of Mathematics and Mathematical Logic

(Chairman: Kharazishvili A., Cochairman: Kipiani A.)

Room of Seminars and Discussions (VIAM)

Wednesday, 8 October

Chairman: Kharazishvili A.

Secretary: Kipiani A.

- 14³⁰ -15⁰⁰ **Omanadze R.Sh.**, On strongly effectively levelable sets
- 15⁰⁵ -15³⁵ **Di Nola A., Grigolia R., Spada L.**, On free cyclic MV – algebras
- 15⁴⁰ -16¹⁰ **Kirtadze A.**, Some applications of set-theoretical methods in the theory of quasi-invariant measures
- 16¹⁵ -16⁴⁵ **Pantsulaia G.**, A relation between some translation-invariant Borel measures on R^ω
- 16⁵⁰ -17²⁰ **Kipiani A.**, One algebraic characterization of uncountable cardinals less than the cardinality of the continuum
- 17²⁵ -17⁵⁵ **Kharazishvili A.**, Some applications of almost disjoint families of sets

Section: Applied logics and programming

(Chairmen: Baaz M., Cochairmen: Antidze J., Rukhaia Kh.)

Room 221 (VIAM)

Wednesday, 8 October

Chairman: Rukhaia Kh.

Secretary: Tibua L.

- 11⁰⁰ -11³⁰ **Archvadze N., Pkhovelishvili M., Shetsiruli L.**, The Methods of the Effective Data Search for the Listed Structures
- 11³⁵ -12⁰⁵ **Antidze J., N. Gulua N.**, Machine Translation from Georgian Language
- 12¹⁰ -12⁴⁰ **Fedulov G.K.**, One-Dimensional Bin Packing Class: Fast Bounds of Objective Functions
- 12⁴⁵ -13³⁰ **Chankvetadze G.**, International Money Transfer System “Alpha Express”
- 13³⁵ -14³⁰ **BREAK**
- Chairman: J. Antidze
Secretary: L. Tibua
- 14³⁰ -15⁰⁰ **Dundua B.**, A System for Rule-Based Programming with Sequence and Context Variables
- 15⁰⁵ -15³⁵ **Rukhaia Kh., Tibua L., Chankvetadze G.**, Modified $M\tau SR$ Theory
- 15⁴⁰ -16¹⁰ **Pkhakadze K., Chichua G., Abzianidze L., Maskharashvili A.**, About 1-Stage Voice Managed Georgian Intellectual Computer System
- 16¹⁵ -16⁴⁵ **Pkhakadze K., Abzianidze L., Maskharashvili A.**, Georgian Languages Theses

Section: Multi-field Problems of Mathematical Physics
and Continuum Mechanics

(Chairmen: G. Hsiao, D. Natroshvili)

Room 116 (VIAM)

Wednesday, 8 October

- 11³⁵ -12⁰⁵ **Kapanadze D.**, Exterior wedge diffraction problems with Dirichlet, Neumann and impedance boundary conditions
- 12¹⁰ -12⁴⁰ **Giorgashvili L.**, Shota Zazashvili, General representations of solutions to the oscillation equations of thermo-hemitropic elasticity
- 12⁴⁵ -13³⁰ **Chkadua O.**, Tengiz Buchukuri, David Natroshvili, Mixed boundary value problems of piezoelectricity for solids with Cracks
- 13³⁵ -14³⁰ **BREAK**
- 14³⁰ -15⁰⁰ **Gachechiladze R.**, Avdandil Gachechiladze, Contact problems with friction for hemitropic solids
- 15⁰⁵ -15³⁵ **Skhvitaridze K.**, The basic boundary value problems of statics of the theory of incompressible viscous fluid for spheroid
- 15⁴⁰ -16¹⁰ **Natroshvili D.**, Mixed interface crack problems for composed solid structures

Section: Computational Mechanics

(Chairman: Vashakmadze T., Cochairman: Peradze J.)

Room 203 (VIAM)

Thursday, 9 October

Chairman: Vashakmadze T.

- 12¹⁰ -12⁴⁰ **Abramidze E.**, The thermo-elasticity problem of deformation of flexible multilayered shells
- 12⁴⁵ -13³⁰ **Berikelashvili G., Jokhadze O., Kharibegashvili S.**, Difference method of solving the Darboux problem for nonlinear Klein-Gordon equation
- 13³⁵ -14³⁰ **BREAK**
- 14³⁰ -15⁰⁰ **Manelidze G., Papukashvili A.**, On application of alternative to perturbation techniques method to singular integral equations containing an immovable singularity
- 15⁰⁵ -15³⁵ **Peradze J., Rogava J.**, A numerical algorithm for one nonlinear integro-differential oscillation equation
- 15⁴⁰ -16¹⁰ **Sanikidaze J.**, An approximate scheme for cauchy type singular integrals on infinite interval
- 16¹⁵ - 16⁴⁵ **Vashakmadze T.**, Von karman type systems of equation for porous, piezo and viscous elastic plates

Section: Algebra and Number Theory

(Chairman: Amaglobeli M., Cochairman: Shavgulidze K.)

Room 203 (VIAM)

Thursday, 9 October

- 11⁰⁰-11³⁰ **Amaglobeli M. G., Remeslennikov V. N.**, Groups of reduced G-identities for nilpotent groups of step
- 11³⁵-12⁰⁵ **Bokelavadze T., Tavadze A.**, Subgroup lattice of Hall's W-Power groups
- 12¹⁰-12⁴⁰ **Gogishvili G.**, On general estimate of the singular series corresponding to positive quaternary quadratic forms and its improvement in some special cases
- 12⁴⁵-13³⁰ **Kachakhidze N.**, On the basis of the space of cusp forms of the level 8
- 13³⁵-14³⁰ **BREAK**
- 14³⁰-15⁰⁰ **Kemoklidze T.**, A lattice of fully invariant subgroups of a cotorsion group
- 15⁰⁵-15³⁵ **Mazurov V.D.**, Periodic groups with prescribed element orders
- 15⁴⁰-16¹⁰ **Saatashvili G.**, On Distribution of the Prime Numbers
- 16¹⁵-16⁴⁵ **Shavgulidze K.**, On the dimension of some spaces of generalized theta-series
- 16⁵⁰-17²⁰ **Vepkhvadze T.**, On Cups Forms of Weight 9/2

Section: Mechanics of Solids

(Chairman: Bacheleishvili M., Cochairman: Svanadze M.)

Council Room (VIAM)

Thursday, 9 October

- 11⁰⁰-11³⁰ **Bitsadze L.**, The Second Boundary Value Problem of Statics of the Theory of Elastic Transversally Isotropic Binary Mixtures for an Infinite Strip
- 11³⁵-12⁰⁵ **Khatiashvili G.**, Saint-Venant's Problem for Multi-Layer Elliptic Tubes
- 12¹⁰-12⁴⁰ **Shavlakadze N.**, The Dynamic Bending Problem of Beam Lying on the Elastic Basis
- 12⁴⁵-13³⁰ **Svanadze K.**, The mixed Problem of the Theory of Elastic Mixture for a Rectangle Weakened by Unknown Equiv-Strong Holes
- 13³⁵-14³⁰ **BREAK**
- 14³⁰-15⁰⁰ **Svanadze M.**, Plane Waves and Vibrations in the Binary Mixtures of Thermoelastic Solids
- 15⁰⁵-15³⁵ **Tsagareli I.**, The Solution of the Boundary-Contact Value Problems of Thermoelasticity Binary Mixtures for the Circle and for Circular Ring
- 15⁴⁰-16¹⁰ **Baghaturia G.**, The problem of vibration of the elastic half-plane with a crack perpendicular to its boundary

Section: Theory of Shells and Plates

(Chairman: Valishvili N., Cochairman: Kipiani G.)

Room of Seminars and Discussions (VIAM)

Thursday, 9 October

- 12¹⁰-12⁴⁰ Mjavanadze. Sh., Elastic polygon with polygonal holes which has uniform solid boundary holes
In the corners
- 12⁴⁵-13³⁰ Tskhvedadze R., Kipiani G., Bukhsianidze A.,
Definition of mode of deformation of spherical
build-up dome with filtering parameters by using
taylor's generalized formula

13³⁵-14³⁰ BREAK

Section: Mathematical Problems of Hydromechanics

(Chairman: Sharikadze J. , Cochairman: Khomasuridze N.)

Room 231 (VIAM)

Thursday, 9 October

Chairman: Sharikadze J.

Secretary: Jikidze L.

- 12⁴⁵-13³⁰ Lomidze I.R., Javakhishvili. J.I., Thermo-dyna-
mics of three-dimensional barochronic flows

13³⁵-14³⁰ BREAK

- 14³⁰-15⁰⁰ Prangishvili A., Obgadze T., Gorgidze D., Exact
solution of the problem of damped two-dimensional
benard flow

- 15⁰⁵-15³⁵ Shapakidze L., The numerical investigation
instability and transition in a curved channel flows
with a transverse pressure gradient

- 15⁴⁰-16¹⁰ Sharikadze J., Magnetohydrodynamic unsteady
free convection across an infinite vertical porous
plate

- 16¹⁵-16⁴⁵ Tsitskishvili A. R., Tsitskishvili Z. A.,
Tsitskishvili R. A., On the construction of solutions
of spatial axi-symmetric stationary with partially
unknown boundaries problems of the theory of jet
flows

- 16⁵⁰-17²⁰ Tsutskiridze V., Jikidze L., Influence of electric
and magnetic field on heat transfer under laminar
flow of liquid in a flat channel

Section's Index

Algebra and Number Theory, 15
Applied logics and programming, 12
Complex Analysis and its Applications, 2
Computational Mechanics, 14
Differential Equations and Optimal Control, 4
Foundations of Mathematics and Mathematical Logic, 11
Function Theory, 1
Mathematical Modeling and Numerical Analysis, 9
Mathematical Problems of Hydromechanics, 17
Mechanics of Solids, 16
Multi-field Problems of Mathematical Physics and Continuum
Mechanics, 13
Partial Differential Equations, 6
Probability theory and mathematical statistics, 7
Theory of Shells and Plates, 17