25 Years of TICMI Tbilisi International Centre in Mathematics and Informatics (1995-2020)

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In 1995 TICMI (<u>http://www.viam.science.tsu.ge/ticmi</u>) was founded by initiation of Prof. George Jaiani with the support of EMS (European Mathematical Society) and personally of its first President Prof. Friedrich Hirzebruch, who beforehand on 25.11.1994 invited G. Jaiani to Bonn at Max-Planck Institute in order to discuss aims and prospective role of the centre in Caucasian independent republic of Georgia. He was the first who used the acronym TICMI with words "TICMI is a good idea" during the above-mentioned discussions and instruct EMS secretary of that time Prof. E.C. Lance to carry out the corresponding actions on the part of EMS (see Appendix).

TICMI is based in the I. Vekua Institute of Applied Mathematics of I. Javakhishvili Tbilisi State University.

STATUTE

- 1. The Tbilisi International Centre of Mathematics and Informatics (later called "Centre") has been founded in 1995 under the aegis of the Academy of Natural Sciences of Georgia (later "Academy"). Based in the I. Vekua Institute of Applied Mathematics of I. Javakhishvili Tbilisi State University (later "Institute"), it is supported by the Georgian Mathematical Union and the European Mathematical Society.
- 2. The aims of the Centre are, first, to help young scientists of the countries of the Black Sea Basin, to improve their professional skills and, second, to promote the exchange of scientific information worldwide. This will be achieved by Lecture Series and Summer Schools devoted to topics determined by the immediate interests of the Centre. The goal of TICMI is to be a scientific center for Georgia, Turkey, Armenia, Azerbaijan
- 3. The work of the Centre is guided by an International Scientific Committee (later called "Committee"), consisting of seven persons. Four are elected for a period of four years by the Scientific Council of the Institute; they represent different interests and at least one among them is a member of the Institute. Their candidatures are approved by the Presidium of the Georgian Mathematical Union and by the Department of Mathematics and Informatics of the Academy. The three others are appointed for the same period by the Executive Committee of the European Mathematical Society.
 - a. The Committee constructs long-term and annual plans for the Centre. It identifies themes, selects lecturers, compiles lists of participants and decides on the awarding of grants (up to 20 percent of participants), and discusses current problems.

- b. The Committee meets once a year to deal with the relevant business placed before it. A Committee decision requires a vote of approval from at least four members of the Committee.
- c. The Committee has the Chairman whose candidature is approved by the Presidium of the Academy on the recommendation of the Director of the Institute.
- d. The Chairman of the Committee, working within the decisions of the Committee directs the work of the Centre. He is supported by business manager and technical secretary, both chosen from among the Institute members.
- 4. The Committee is accountable to the Presidium of the Academy. It is required to provide annual report of its work to the Georgian Mathematical Union and European Mathematical Society.
- 5. The Centre is not an autonomous unit within the Institute. Its interests are governed and protected by the Institute and Academy.
- 6. The financial activities of the Centre are controlled by the Finance Office of the Institute.

Considered and Approved at

the Sitting of the Department of Mathematics and Informatics of the Academy of Natural Sciences of Georgia on January 11, 1995 (record # 1);

the Sitting of the Scientific Council of I.Vekua Institute of Applied Mathematics of I.Javakhishvili Tbilisi State University on January 25, 1995 (record # 1).

The first International Scientific Committee (ISC) of TICMI

G. Jaiani (Chairman), Tbilisi, I.Vekua Institute of Applied Mathematics, I. Javakhishvili Tbilisi State University (TSU),

J.-Cl. Hausmann, Geneve, Universite de Geneve,

E. Khmaladze, Tbilisi, A. Razmadze Mathematical Institute of the Georgian Academy of Sciences (GAS),

D. Natroshvili, Tbilisi, Georgian Technical University,

G.F. Roach, Glasgow, Strathclyde University,

V. Sollonnikof, Petersburg, St. Petersburg Department of Steklov Institute of Mathematics of the Russian Academy of Sciences

M. Tsuladze, Tbilisi, N. Muskhelishvili Institute of Computational Mathematics of the GAS.

Among of them *J.-Cl. Hausmann, G.F. Roach*, *V. Sollonnikof* according to the Statute of TICMI, were nominated by the Executive Committee (EC) of EMS.

In different times the members of ISC of TICMI were:

J. Sanikidze, Tbilisi, N. Muskhelishvili Institute of Computational Mathematics of the GAS,

T. Shervashidze, Tbilisi, A. Razmadze Mathematical Institute of the GAS,

D. Cioranescu, Paris, Laboratoire d'Analyse Numerique, Universite Paris V,

M. Giaquinta, Pisa, Scuola Normale Superiore,

P. Freitas, Lisbon, University of Lisbon,

O. Gil-Medrano, Valencia, Universidad de Valencia

Among of them *D. Cioranescu*, *M. Giaquinta*, *P. Freitas*, *O. Gil-Medrano* were nominated by EC of EMS.

At present ISC of TICMI looks like

- L. Beznea, Bucharest, Simion Stoilow Institute of Mathematics of the Romanian Academy
- A. Fialowski, Budapest, Institute of Mathematics, Pazmany Peter setany 1/C,
- G. Jaiani (Chairman), Tbilisi, I. Vekua Institute of Applied Mathematics, TSU,
- *V. Kvaratskhelia*, Tbilisi, N. Muskhelishvili Institute of Computational Mathematics of the Georgian Technical University,
- A. Meskhi, Tbilisi, A. Razmadze Mathematical Institute of the TSU,
- D. Natroshvili, Tbilisi, Georgian Technical University,
- *E. Shargorodsky*, London, King's College London.

Among of them *L. Beznea*, *A. Fialowski*, *E. Shargorodsky* were nominated by EC of EMS. **Present Structure of TICMI**



Since foundation TICMI has organized advanced courses (with Minisymposia) and workshops for young scientists and Students. In different times as lecturers (besides the Georgian scientists) were invited: *Wolfgang L. Wendland* (University Stuttgart, Germany), *B.-Wolfgang Schulze* (University of Potsdam, Germany), *Veronique Lods, Gerard Tronel* (Universite P. et M.Curie, France), *Paolo E. Ricci* (University of Rome, "La Sapienca", Italy), *Alois Kufner* (Mathematical Institute, Academy of Sciences, Czech Republic), *Diego Caratelli* (University of Rome, "La Sapienza", Italy), *Alberto Cialdea* (University of Potenza, Italy), *Flavia Lanzara* (University of Rome, "La Sapienza", Italy), *Paolo Podio-Guidugli* (Università di Roma 2, TorVergata, Italy), *Alemdar Hasanoglu* (Izmir University, Izmir, Turkey), *Wolfgang H. Mueller* (Technical University of Berlin, Germany), *Holm Altenbach* (Otto-von-Guericke-University Magdeburg, Faculty of Mechanics, Germany), *Alice Fialowski* (Eotvos Lorand University, Institute of Mathematics, Hungary), *Reinhold Kienzler* (University of Bremen, Germany), *Ralf Schindler* (University of Münster, Germany), *Ayech Benjeddou* (Institut Supérieur de Mécanique de Paris & Université de Technologie de Compiègne /Centre National de la Recherche Scientifique FRE 2012 ROBERVAL, France), *Bernadette Miara* (Université Paris-Est Marne la Vallée, France).

List of Advanced Courses with Minisymposia

- Advanced Courses on Mathematical Models of Piezoelectric Solids and Related Problems, 2019 (Number of participants 34)
- II Advance Courses in Applied Mathematics, 2015 (Number of participants 34)
- Advance Courses in Applied Mathematics, 2014 (Number of participants 29)
- Advanced Courses on Boundary Value Problems for Partial Differential Equations, 2010 (Number of participants 23)
- Advanced Courses on Methods of Effective and Explicit Solving of Boundary Value Problems, 2009 (Number of participants 24)
- Advanced Course on Informatics, 1999 (Number of participants 16)
- Advanced Course on Integral Operators and Related Problems, 1999 (Number of participants 34)
- Advanced Course on Function Spaces and Applications, 1999 (Number of participants 31)
- Advanced Course on Pseudodifferential Operators, 1998 (Number of participants 23)
- Advanced Course on Theory of Elasticity 2, 1997 (Number of participants 26)
- Advanced Course on Theory of Elasticity 1, 1996 (Number of participants 25)

List of Workshops

- Workshop in Discrete Mathematics, 2017 (Number of participants 20)
- Workshop in Discrete Mathematics, 2016 (Number of participants 17)
- Workshop on Applications of Mathematics to Biology and Medicine, 2011-2 (Number of participants 14)
- Workshop on 1D Nanostructures Theory and Technology, 2011 (Number of participants 19)
- Workshop on Mathematical Methods in Natural Sciences, 2006 (Number of participants 12)
- Workshop on Degenerate Partial Differential Equations, Weighted Spaces, and Applications to Mechanics, 2005 (Number of participants 30)
- Workshop on Application of Mathematical Methods in Natural Sciences, 2004 (Number of participants 20)
- Workshop on Orthogonal Polynomials and Their Applications, 2003 (Number of participants 12)
- Workshop on Application of Mathematical Methods in Natural Sciences, 2002 (Number of participants 39)
- Workshop on Mathematical Models for Elastic Cusped Plates and Bars, 2001 (Number of participants 30)

- French-Georgian Workshop in Applied Mathematics, 2000 (Number of participants 27)
- TICMI Workshop 1, 1998 (Number of participants 25)

TICMI was co-organizer of the International Conferences

- XI Annual Meeting of the Georgian Mechanical Union, 2020
- The Fourth International Conference on "Application of Mathematics and Informatics in Natural Sciences and Engineering", 2019
- X Annual Meeting of the Georgian Mechanical Union, 2019
- The Third_International Conference on "Modern Problems in Applied Mathematics", 2018
- IX Annual Meeting of the Georgian Mechanical Union, 2018
- The Third International Conference on "Application of Mathematics and Informatics in Natural Sciences and Engineering", 2017
- VIII Annual Meeting of the Georgian Mechanical Union, 2017
- VI Annual Meeting of the Georgian Mechanical Union, 2015
- V Annual Meeting of the Georgian Mechanical Union, 2014
- IV Annual Meeting of the Georgian Mechanical Union, 2013
- International Conference on Fourier Analysis and Approximation Theory, 2013
- Second International Conference on "Modern Problems in Applied Mathematics", 2013
- III Annual Meeting of the Georgian Mechanical Union, 2012
- The First International Conference on "Modern Problems in Applied Mathematics", 2008
- IUTAM Symposium on Shells, Plates, and Beams, 2007
- ISAAC Conference on Complex Analysis, Partial Differential Equations, and Mechanics of Continua, 2007

TICMI publishes two international scientific journals





-"Bulletin of TICMI", editor G. Jaiani, founded in 1997 http://www.viam.science.tsu.ge/ticmi/bulletin/bulletin

-"Lecture Notes of TICMI", editor G. Jaiani, founded in 2000 http://www.viam.science.tsu.ge/others/ticmi/lnt/lecturen.ht m

Both the journals are indexed in Mathematical Reviews/MathSciNet, Scopus, and Zentralblatt MATH/Mathematics Abstracts.

Appendix

S EUROPEAN MATHEMATICAL SOCIETY Professor Friedrich Hirzebruch President Max-Planck-Institut für Professor George Jaiani Mathematik c/o Professor W. Wendland Gottfried-Claren-Straße 26 D - 53225 Bonn Phone: (49) 228 402 - 243/244 Fax: (49) 228 402 - 277 Mathematisches Institut A Universität Stuttgart Pfaffenwaldring 57 70569 Stuttgart Bonn, 31. Oktober 1994 Dear Professor Jaiani, In the meantime you will have received the letter of Professor Lance, secretary of the EMS, informing you about the results of the meeting of our Executive Committee. Professor Laszlo Marki has sent you an e-mail letter. I am very happy that you are for two months in Germany. I am away from Bonn including November 14. Would you like to come over to visit the Max-Planck-Institut? November 25 is a good day for me. Then we could discuss the situation. The MPI will pay for your travelling expenses from Stuttgart to Bonn and return and for your living expenses in Bonn. With best regards Sincerely yours, Linch cc: Professor Chris Lance

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	Mathematics of Tbilisi State
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Academician of Georgian Social	Tel: (007 8832) 303511
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Professor Friedrch Hirzerbruch President of EMS

Max-Planck-Institut für Mathematik Gottfried-Claren-Straße 26 D-53225 Bonn Phone: (49) 228 402-243/244 Fax: (49) 228 402-277 Professor George Jaiani c/o Professor W. Wendland Mathematisches Institut A Universität Stuttgart Pfaffenwaldring 57 70569 Stutgart

den 4. 11.1994

sehr geehrter Prof. Dr .F. Hirzebruch,

Vielen Dank für sehr geehrter sehr geehrter fuer den Brief vom 31.Oktober 1994! Ich bedanke mich bei Ihnen f ür die Einladung nach Bonn. Was Tbilisi International Centre of Mathematics and Informatics betrifft, so habe ich eine Email von Prof. L. Marki und einen Brief von Prof. CH.Lance erhalten. Entsprechend, wie es Sie empfolen haben, habe ich einen Brief nach Canada (Fields Institut) gesandt.

Mit herzlichen Grüssen,

George Jaiani

MAX-PLANCK-INSTITUT FÜR MATHEMATIK

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Bonn, 17. November 1994

Sehr geehrter Herr Jaiani,

vielen Dank für Ihren Telefonanruf. Wir freuen uns auf Ihren Besuch in Bonn am 25. November 1994 und haben für Sie ein Hotelzimmer im

Hotel SCHWAN, Mozartstraße 24-26, 53111 Bonn, Tel.: 0228/634108

für die Nacht vom 25./26. November 1994 reserviert. Das Hotel liegt ganz in der Nähe des Hauptbahnhofes Bonn, wo Sie mit dem Zug aus Stuttgart kommend eintreffen werden. Zu Fuß können Sie die Mozartstraße, die ich auf dem beileigenden Stadtplan gelb markiert habe, in 5 Minuten erreichen. Sie können gerne erst in Ihr Hotel gehen und dann in das Max-Planck-Institut kommen, wo Herr Hirzebruch Sie am vormittag erwartet.

Mit den besten Grüßen, auch von Herrn Hirzebruch,

Rello

Marion Bernhard