# **Curriculum Vitae**

## **Temur Jangveladze**

## (Other transcriptions Dzhangveladze, Djangveladze)

| A CONTRACTOR      |         | First name:        | Temur  |
|-------------------|---------|--------------------|--|
|                   |         | Last name:         | Jangveladze (Dzhangveladze,<br>Djangveladze) |
|                   |         | Date of birth:     | August 6, 1955                               |
|                   |         | Place of birth:    | Abasha, Georgia                              |
|                   |         | Marital status:    | married, three children                      |
|                   | -       | Nationality:       | Georgian                                     |
| Permanent address | Home:   | 7, Guramishvili S  | Str., Apartment 10                           |
|                   |         | 3700 Rustavi, Re   | epublic of Georgia                           |
|                   | Home:   | 14, Ingorokva Sta  | r., Apartament 2 <sup>a</sup>                |
|                   |         | 0108 Tbilisi, Rep  | oublic of Georgia                            |
| Mailing address   | Office: | Ilia Vekua Institu | te of Applied Mathematics                    |
|                   |         | Ivane Javakhishv   | ili Tbilisi State University                 |
|                   |         | 2, University Str. | ., 0186<br>of Georgia                        |
|                   |         | Department of M    | athematics                                   |
|                   |         | Georgian Techni    | cal University                               |
|                   |         | 77, M. Kostava S   | Str., 0175                                   |
|                   |         | I bilisi, Republic | of Georgia                                   |
|                   | Tel.:   | (+99593) 31 62 8   | 80 (mobile)                                  |
|                   |         | (+995341) 25 07    | 96 (home)                                    |
|                   | E-mail: | tjangv@yahoo.co    | om   |
|                   |         | temur.jangveladz   | æ@tsu.ge                                     |
|                   |         |                    |  |

## Education

| 1998: | Doctor of Physical and Mathematical Sciences (Dr. Habil. in Theoretical Bases of |
|-------|--|
|       | Mathematical Modeling, Numerical Methods, Program Complexes, No 000737),         |
|       | Ivane Javakhishvili Tbilisi State University. Thesis: "Mathematical Modeling,    |
|       | Investigation and Numerical Solution of Some Nonlinear Diffusion Problems".      |
|       | Referees: Prof. D.K.Gvazava, Prof. V.L.Makarov, Prof. G.V.Meladze, Prof.         |

|       | D.P.Zeragia  |
|-------|--|
| 1984: | Candidate of Physical and Mathematical Sciences (PhD in Computational Mathema-<br>tics, №023056), Niko Muskhelishvili Institute of Computational Mathematics of<br>Georgian Academy of Sciences. Thesis: "Investigation and Numerical Solution of<br>Some Nonlinear Integro-differential Parabolic Problems". Scientific Advisor<br>Academician, Prof. A.V. Bitsadze. Referees: Academician, Prof. S.I.Pohozhaev,<br>Academician, Prof. Y.P. Popov, Prof. V.P.Pikulin, Prof. V.V.Badagadze |
| 1977: | Graduated from the I.Javakhishvili Tbilisi State University for Applied Mathematics and Cybernetics, Diploma with Honors in Mathematics, №754537   |

## Field of Research

| Main activities: | Differential and Integro-Differential Equations and Systems; Nonlinear Equations |
|------------------|--|
|                  | and Systems of Mathematical Physics; Mathematical Modeling; Numerical            |
|                  | Analysis; Nonlocal Boundary Value Problems; Nonlocal Initial Value Problems;     |
|                  | Computational Science  |

## Employment

| 2014 - present: | Professor, Georgian Technical University (Department of Mathematics)   |
|-----------------|--|
| 2014 - present: | Professor (Visiting Lecturer), Caucasus University (Caucasus School of Business, Caucasus School of Technology, Tbilisi, Georgia)          |
| 2013 - 2014:    | Full Professor (Visiting Lecturer), Georgian Technical University (Department of Mathematics)  |
| 2012 - 2013:    | Visiting Professor, Naval Postgraduate School, Department of Applied Mathematics,<br>Monterey, CA, USA                                     |
| 2010 - 2014:    | Full Professor, Caucasus University (Caucasus School of Business, Caucasus School of Technology, Tbilisi, Georgia)                         |
| 2009 - present: | Professor (Visiting Lecturer), I.Javakhishvili Tbilisi State University  |
| 2006 - present: | Senior Scientific Researcher, I.Vekua Institute of Applied Mathematics of I.Javakhishvili Tbilisi State University                         |
| 2006 - 2010:    | Full Professor, Ilia State University, Department of Physics and Mathematics, Faculty of Masters and Doctoral Programs                     |
| 2006 - 2009:    | Associate Professor, I.Javakhishvili Tbilisi State University, Department of Exact and Natural Science                                     |
| 2002 - 2010:    | Professor (Visiting Lecturer), Caucasus University (Caucasus School of Business, Tbilisi, Georgia)   |
| 1998 - 2006:    | Leading Research Fellow of the Department of Partial Differential Equations (part-time position), I.Vekua Institute of Applied Mathematics |
| 1998 - 2006:    | Professor (part-time position), Sukhumi Branch of I.Javakhishvili Tbilisi State University   |
| 1998 - 2006:    | Professor, Department of Applied Mathematics and Informatics, I.Javakhishvili Tbilisi  |

|              | State University  |
|--------------|---|
| 1988 - 1998: | Docent, Department of Applied Mathematics and Informatics, I.Javakhishvili Tbilisi<br>State University                                    |
| 1988 - 1998: | Senior Research Fellow of the Department of Partial Differential Equations (part-time position), I.Vekua Institute of Applied Mathematics |
| 1984 - 1988: | Invited Docent, I.Javakhishvili Tbilisi State University  |
| 1983 - 1988: | Research Fellow, I.Vekua Institute of Applied Mathematics   |
| 1983 - 1984: | Visiting researcher of the M.V. Lomonosov Moscow State University   |
| 1980 - 1983: | Visiting researcher of the V.A. Steklov Mathematical Institute of the Russian Academy of Sciences (Moscow)                                |
| 1980 - 1983: | Post-graduate study in I.Javakhishvili Tbilisi State University. Scientific Advisor Academician, Prof. A.V. Bitsadze                      |
| 1977 - 1984: | Invited Assistant, I.Javakhishvili Tbilisi State University   |
| 1977 - 1983: | Engineer-Mathematician-Programmer, Mathematician, Junior Research Fellow, I.Vekua<br>Institute of Applied Mathematics                     |

### Miscellaneous

| Courses taught:                       | Partial Differential and Integro-differential Equations; Numerical Analysis;<br>Mathematical Modeling; Functional Analysis; Variational Methods; Operator<br>Equations; Integral and Functional Equations; Models and Methods of Mathematical<br>Physics; Methods of Approximate Solution for Some Classes of Differential and<br>Integro-differential Equations; Precalculus; Calculus; Linear Algebra; Discrete<br>Mathematics |
|---------------------------------------|--|
| Computer Skills                       | Ms. Word, Ms. Excel, Ms. PowerPoint, LaTex, Internet browsers, Adobe-Acrobat Professional, Programming (Mathlab, C/C++)  |
| Master of Science<br>Degree students: | 40   |
| Ph.D. Students                        | 11: 6 (Zurab Kiguradze (2003), Amiran Chitaladze (2003), Mikheil Tutberidze (2006), Mikheil Gagoshidze (2015), Maia Nikolishvili (2016), Maia Aptsiauri (2016) have finished, currently 5 (Besik Tabatadze, Maia Kratsashvili, Ciala Katsadze, Kakhaber Shengelia, Giorgi Tsulaia)   |
| Publications:                         | During 1975-2017 more than 180 publications  |
| Citation indices                      | Citations – 893; h-index – 15; g-index – 24; i10-index – 24 (Based on Google Scholar Database)   |
| Languages spoken:                     | Georgian (Native), English, Russian  |

## Participation in Conferences and other Scientific Forums

| 2017: | International Conference on Mathematics and Engineering 2017 (ICOME-2017). May 10-12, |
|-------|---|
|       | Istanbul, Turkey, 2017  |

|       | The 2017 International Conference on Pure Mathematics - Applied Mathematics (PM-AM 2017), Plenary Lecture. April 9-11 2017, Athens, Greece   |
|-------|--|
| 2016: | International Workshop on the Qualitative Theory of Differential Equations, QUALITDE-2016, Dedicated to the 100th birthday anniversary of Professor A. Bitsadze. December 24-26, 2016, Tbilisi, Georgia  |
|       | 5th International Conference on Biotechnology and Bioengineering & International Conference<br>on Coastal Ecology and Marine Biotechnology (ICBB&ICCEMB), December 8-10, 2016,<br>Bangkok, Thailand  |
|       | Second International Conference on "Application of Mathematics and Informatics in Natural Sciences and Engineering - AMINSE 2", Dedicated to the Birthday Centenary of Andro Bitsadze. September 20-24, 2016, Tbilisi, Georgia   |
|       | SIAM Annual Meeting (AN16). July 11-15, 2016. The Westin Boston Waterfront, Boston, Massachusetts, USA   |
| 2015: | International Workshop on the Qualitative Theory of Differential Equations, QUALITDE-2015, December 27-29, 2015, Tbilisi, Georgia  |
|       | Swedish-Georgian Conference in Analysis & Dynamical Systems. July 15-22, 2015, Tbilisi, Georgia  |
|       | VI International Conference of the Georgian Mathematical Union. Invited Speaker. July 12-16, 2015, Batumi, Georgia   |
|       | SIAM SEAS Conference, University of Alabama at Birmingham, USA, Alabama, March 20-<br>22, 2015   |
| 2014: | International Workshop on Qualitative Theory of Differential Equations, QUALITDE-2014, Dedicated to the 125 birthday anniversary of Prof. A. Razmadze, December 18-20, Tbilisi, Georgia  |
|       | 8th International Conference on Applied Mathematics, Simulation, Modelling (ASM '14), November 22-24, 2014, Florence, Italy  |
|       | Sem. Dep. Appl. Math. October 6, 2014, Laboratoire Jacques-Louis Lions, Université Pierre et Marie Curie, Paris, France  |
|       | V Annual Conference of Georgian Mathematical Union. September 8-12, 2014, Batumi, Georgia  |
|       | Caucasian Mathematics Conference (CMC I). September 5-6, 2014, Tbilisi, Georgia  |
|       | 7th International Conference on Finite Differences, Finite Elements, Finite Volumes, Boundary Elements, May 15-17, 2014, Gdansk, Poland  |
|       | SIAM SEAS Conference, Florida Institute of Technology, March 29-30, 2014, Melbourne, Florida, USA  |
| 2013: | International Workshop on the Qualitative Theory of Differential Equations, QUALITDE - 2013, Dedicated to the 100th birthday anniversary of Professor Levan Magnaradze, December 20- 22, 2013, Tbilisi, Georgia  |
|       | IV International Conference of Georgian Mathematical Union dedicated to Academician Victor Kupradze $(1903 - 1985)$ on the occasion of 110-th anniversary of his birthday and to the Georgian Mathematical Union on the occasion of 90 year from founding. September 9-15, |

|       | 2013, Batumi, Georgia   |
|-------|---|
|       | Second International Conference "Modern Problems in Applied Mathematics" Dedicated to the 95th Anniversary of the I. Javakhishvili Tbilisi State University & 45th Anniversary of the I.Vekua Institute of Applied Mathematics of TSU. September 4-7, 2013, Tbilisi, Georgia                  |
|       | WSEAS, 2nd International Conference on Applied, Numerical and Computational Mathematics (ICANCM '13). Plenary Lecture. April 23-25, 2013, Morioka City, Iwate, Japan  |
|       | Seminar at Department of Applied Mathematics (29 May, Naval Postgraduate School, Monterey, CA, USA)   |
| 2012: | Seminar at Department of Applied Mathematics (30 October, Naval Postgraduate School, Monterey, CA, USA)   |
|       | 5th WSEAS International Conference on FINITE DIFFERENCES - FINITE ELEMENTS - FINITE VOLUMES - BOUNDARY ELEMENTS (F-and-B '12). Plenary Lecture. September 24-26, 2012, Prague, Czech Republic   |
|       | III International Conference. Georgian Mathematical Union. Georgia, September 2-9, 2012, Batumi, Georgia  |
|       | Scientific Conference of Mathematicians Dedicated to the 65th Birthday Anniversary of Professor Revaz Absava (February 9-10, 2012, Tbilisi, Georgia)  |
| 2011: | Second International Conference of the Georgian Mathematical Union. Dedicated to the 70th<br>Anniversary of the Georgian National Academy of Sciences & the 120th Birthday of its First<br>President Academician Nikoloz (Niko) Muskhelishvili (September 15–19, 2011, Batumi,<br>Georgia)    |
|       | International Conference "CONTINUUM MECHANICS AND RELATED PROBLEMS OF ANALYSIS" to Celebrate the 70th Anniversary of the Georgian National Academy of Sciences & the 120th Birthday of its First President Academician Nikoloz (Niko) Muskhelishvili (Tbilisi, Georgia, September 9–14, 2011) |
|       | The 9th IASME/WSEAS Int. Conf. on HEAT TRANSFER, THERMAL ENGINEERING and ENVIRONMENT (HTE '11). Plenary Lecture (Florence, Italy, August 23-25, 2011)   |
|       | Technion - Israel Institute of Technology, Department of Mathematics. Seminar: Nonlinear Analysis and Optimization. 2011  |
| 2010: | The 15 <sup>th</sup> WSEAS International Conference on APPLIED MATHEMATICS (MATH'10) Plenary Lecture (Vouliagmeni, Athens, Greece, December 29-31, 2010)  |
|       | First International Conference of the Georgian Mathematical Union (September 12-19, 2010, Batumi, Georgia)  |
|       | Advanced Courses on Boundary Value Problems for Partial Differential Equations. Tbilisi Int.<br>Centre Math. Inf. (TICMI), I.Vekua Inst. Appl. Math. (23-24 June, 2010, Tbilisi, Georgia)   |
|       | First International Conference Dedicated to commemoration of Professors Elene Dekanosidze<br>and Murman Tsuladze, outstanding representatives of the Georgian informatics scientific school<br>"INFORMATION AND COMPUTATIONAL TECHNOLOGIES" (May 2-6, 2010, Tbilisi,<br>Georgia)              |
|       | Progress In Electromagnetics Research Symposium (PIERS) (March 22–26, 2010, Xi'an, China)   |

| 2009: | Fifth Congress of Mathematicians of Georgia (October 9-12, 2009, Batumi-Qutaisi, Georgia)   |
|-------|---|
|       | The 2 <sup>nd</sup> WSEAS Intern. Conference (June 26-28, 2009, Tbilisi, Georgia)   |
| 2008: | Tuning Conference. University of Deusto (Bilbao, Spain, 30 November 4 December, 2008)   |
|       | Int. Conf. Modern Probl. Appl. Math., dedicated to the 90 <sup>th</sup> Anniversary of the I. Javakhishvili<br>Tbilisi State University & 40 <sup>th</sup> Anniversary of the I.Vekua Inst. Appl. Math. (October 7-9, 2008, Tbilisi, Georgia) |
|       | Seminar at Department of Applied Mathematics (19 May, Naval Postgraduate School, Monterey, CA, USA)   |
| 2007: | ISAAC Conf. "Complex Analysis, Partial Differential Equations, and Mechanics of Continua" dedicated to the 100 <sup>th</sup> birthday anniversary of Ilia Vekua (April 23-27, 2007, Tbilisi, Georgia)   |
| 2005: | The Fourth Congress of Georgian Mathematicians (November, 2005, Tbilisi, Georgia)   |
| 2003: | DEMPh-2003 – Symp. Diff. Eq. Math. Ph. Dedicated to the 100 <sup>th</sup> Birthday Anniversary of Academician V.Kupradze (December 24-25, 2003, Tbilisi, Georgia)   |
| 2002: | Workshop on Appl. Math. Meth. in Natural Sciences (12-13 December, 2002, Tbilisi, Georgia)  |
| 2001: | Symp. Dedicated to the 110 <sup>th</sup> Birthday Anniversary of Academician N.Muskhelishvili (July 23-25, 2001, Tbilisi, Georgia)  |
|       | Republican Conf. of Mathematicians (April 21, 2001, Tbilisi, Sukhumi Branch of Tbilisi State University, Georgia)   |
| 1998: | DEMPh-98 – Sym. Diff. Eq. Math. Ph. Dedicated to the 95 <sup>th</sup> Birthday Anniversary of Academician V.Kupradze (November 3-6, 1998, Tbilisi, Georgia)   |
| 1997: | The Second Congress of Georgian Mathematicians (September 23-27, 1997, Tbilisi, Georgia)  |
|       | Int. Symp. Dedicated to the 90th Birthday Anniversary of Acad. I.Vekua Diff. Eq. Math. Ph., DEMPh-1997 (June 21-25, 1997, Tbilisi, Georgia)   |
|       | Int. Symp. Probl. Cont. Mech. (June 16-19, 1997, Tbilisi, Georgia)  |
| 1996: | Minisymp. Advanced Course on Theory of Elasticity 1, Tbilisi Int. Centre Math. Inf. (TICMI), I.Vekua Inst. Appl. Math. (November 5-8, 1996, Tbilisi, Georgia)   |
| 1994: | First Congress of Georgian Mathematicians (June 1-4, 1994, Tbilisi, Georgia)  |
| 1991: | Cont. Mech. Related Probl. Anal. Symp. Dedicated to the Centenary of Academician N.Muskhelishvili (June 6-11, 1991, Tbilisi, Georgia)   |
| 1990: | Conf. Non-ordinary Probl. (June 7-8, 1990, Kutaisi, Georgia)  |
| 1988: | All–Union School. Functional Meth. Appl. Math. Math. Phys. (Tashkent, 1988, Uzbekistan)   |
| 1987: | All-Union Symp. Curr. Probl. Math. Phys., Dedicated to the 80 <sup>th</sup> Birthday Anniversary of Academician I.Vekua (April 22-25, 1987, Tbilisi, Georgia)   |
|       | Sem. Partial Diff. Eq. guided by Prof. A.V.Bitsadze (V.Steklov Math. Inst., Moscow, November 20, 1987)  |
| 1986: | Sem. Partial Diff. Eq. guided by Prof. A.V.Bitsadze and Prof. V.A.Ilin (M. Lomonosov Moscow State University, October 6, 1986)  |
|       | The XI Conf. Mathematicians of Univ. and Coll. of Georgia (May 28-30, 1986, Kutaisi,  |

|                 | Georgia)   |
|-----------------|--|
|                 | Conf. Non-local Probl. Partial Diff. Eq. (May 21-25, 1986, Nalchik, Russia)  |
| 1986 -<br>2017: | Enlarged Sessions of the Seminar of I.Vekua Institute of Applied Mathematics (April, Tbilisi, Georgia)   |
| 1985:           | Sem. Nonl. Partial Diff. Eq. guided by Prof. S.I.Pohozhaev (Moscow Energetic Inst., November 20, 1985)   |
| 1984:           | Sem. Nonl. Partial Diff. Eq. guided by Prof. S.I.Pohozhaev (Moscow Energetic Inst., October 21, 1984)  |
|                 | Sem. Math. Model. Comp. Math. guided by Prof. Y.P.Popov (M.Keldish Inst. Appl. Math., Moscow, October 20, 1984)  |
| 1983:           | Sem. Partial Diff. Eq. guided by Prof. A.V.Bitsadze (V.Steklov Math. Inst., Moscow, October 19, 1983)  |
|                 | All-Union Conf. Models Mech. Cont. (September 23-30, 1983, Kobuleti, Georgia)  |
|                 | The Int. Congr. Math. (Warsaw, Poland, 1983)   |
| 1975 -<br>1983: | Addresses in Undergraduate, Postgraduate and Young Mathematician Conferences in: Tbilisi (Republic of Georgia), Moscow (Russia), Kiev (Ukraine), Jena (Germany), Bratislava (Slovak) |

## **Additional Information**

| 2017:              | Certificate for scientific expertise of higher education and scientific-research institutions in<br>Mathematics, Georgian National Academy of Sciences                                   |
|--------------------|--|
| 2016:              | Certificate of Honor in connection with the World Science Day established by UNESCO,<br>Georgian National Academy of Sciences for scientific achievements in the field of<br>Mathematics |
| 2016 -<br>present: | Chair of the Seminar of Academician Andro Bitsadze on Partial Differential Equations at I.Vekua Institute of Applied Mathematics   |
| 2014 -<br>present: | Leader of the Seminar on Mathematical Investigation and Approximate Solution of<br>Applied Problems. Department of Mathematics of the Georgian Technical University                      |
| 2014:              | The certificates for giving high level lectures in the Scientific School of TSU "Step-by-step Knowledge" (Ordu – Korgan, Turkey)   |
| 2013:              | The certificate of training in Graduate Student Teaching Excellence Program (G*STEP), I.Javakhishvili Tbilisi State University, University of North-Texas                                |
|                    | Certificate of Completion in recognition of successful completion of the Fulbright Scholarship Program (Washington, 2013)  |
| 2012 -<br>present: | Chair of the Enlarged Sessions of the Seminar of I.Vekua Institute of Applied Mathematics (Section of Partial Differential Equations)  |
| 2012 -<br>2017:    | The certificates for giving high level lectures in the Scientific School of TSU "Step-by-Step Knowledge" (Tbilisi)   |
| 2011:              | Chair of the Enlarged Sessions of the Seminar of I.Vekua Institute of Applied Mathematics (Section of Ordinary and Partial Differential Equations and Optimal Control)                   |

| 2010:             | Biography is included in the book: Who's Who in the World   |
|-------------------|---|
| 2010 -<br>Present | Leader of the Seminar on Investigation and Approximate Solution of Differential and<br>Integro-Differential Models. Department of Mathematical Modelling and Numerical<br>Mathematics at I.Vekua Institute of Applied Mathematics |
| 2009 -<br>2016:   | Member of the Scientific Council of I.Vekua Institute of Applied Mathematics  |
| 2009:             | Certificate for chairing a session in Finite Differences in the 2 <sup>nd</sup> WSEAS International Conference on Finite Differences - Finite Elements - Finite Volumes - Boundary Elements (F-and B '09)                         |
| 2008 -<br>2011:   | Chair of the Enlarged Sessions of the Seminar of I.Vekua Institute of Applied Mathematics (Section of Partial Differential Equations)   |
| 2007-<br>2010:    | Head of Computational Mathematics and Informatics Doctoral Program at Ilia State University   |
|                   | Head of Computational Mathematics and Informatics Master Program at Ilia State University   |
| 2000:             | Certificate of the scientific-pedagogical title of a Professor, №0000231 (Council of Academic Experts of Georgia)   |
| 1996 -<br>2006    | Member of Scientific Board of TSU Sokhumi Branch  |
| 1996 -<br>2013:   | Head of Department of Informatics of Tbilisi International Centre of Mathematics and Informatics (TICMI)  |
| 1995:             | Certificate of the scientific-pedagogical title of a Docent, №000413 (Council of Academic Experts of Georgia)   |
| 1990:             | Certificate of the Senior Scientific Researcher, CH №066797 (Moscow)  |
| 1988 -<br>2009:   | Leader of the Seminar on Investigation and Numerical Solution of Some Classes of<br>Differential Equations at Department of Computational Mathematics and Informatics of the<br>Tbilisi State University                          |
| 1986 -<br>2008:   | Scientific Secretary of the Enlarged Sessions of the Seminar of I.Vekua Institute of Applied<br>Mathematics (Section of Partial Differential Equations)   |
| 1976:             | Undergraduate students practical training in Mathematics, Fridrich – Schiller – Universitaet Jena (July – August, Jena, Germany)  |
| 1975:             | Undergraduate students practical training in Mathematics, Bratislava University (September – October, Bratislava, Slovak)   |
| 1972:             | Graduated from the 17-th Rustavi secondary school with gold medal   |

#### **Scientific Grants**

- 1. CNRS / SRNSF. "Investigation and Numerical Solution of Some Nonlinear Integro-Differential Models Based on Maxwell System" (Scientific Advisor), 2014 2016.
- 2. Individual Travel Grant. Shota Rustaveli National Science Foundation (March 28-31, 2014, Florida, USA).

- 3. Grant of the Georgian National Science Foundation (GNSF). "Investigation and Numerical Solution of Some Nonlinear Nonstationary Models" (FR/30/5-101/12, Principal Investigator), 2013 2016.
- 4. Fulbright Visiting Scholar Program. "Investigation and Numerical Resolution of Some Non-linear Diffusion Systems" AY 2012 2013, from October 1, 2012 to June 30, 2013. USA, CA, Monterey.
- 5. State Grants for Joint research activities with foreign scientists originated from Georgia 2011. "Constraint Logic Programming over Unranked Terms and Hedges with Description Operators". (DI/16/4-120/11, Research Co-director, Principal Investigator), 2012-2015.
- 6. Grant of the Georgian National Science Foundation (GNSF). "Investigation and Numerical Solution of Some Classes of Nonlinear Partial Differential and Integro-differential Equations" (№GNSF/ST07/3-176), Research Director, Principal Investigator), 2008 2009.
- 7. Grant for the Stimulation Program of the Research Activities (N28, Leading Scientific Researcher), 2006 2009.
- 8. Funding of scientific-research works of Georgian state institutions of higher education. "Mathematical Modeling and Approximate Solutions for Fluid Filtration in Multidimensional Environments and Pipelines". Department of Hydrogasdynamic Problems of I. Vekua Institute of Applied Mathematics (1.01.82, Leading Scientific Researcher), 2005. http://www.tsu.edu.ge/dep/scientific.tsu.doc
- 9. International Science Foundation Open Society Georgia Foundation (Scientific Advisor), 2000 2003.
- Grant for the Stimulation Program of the Research Activities. Ministry of Education and Science of Georgia. Department of Science and Technology of Georgia. "Investigation and Approximate Solution of Some Problems of Mathematical Physics" (Principal Investigator), 1998 - 2000.

#### Membership

- 1. Member of the Georgian Technical University Council Awarding PhD Degrees in Mathematics, 2017 present.
- 2. Member of SAG Mathematics, Tuning Georgia, 2008 2009.
- 3. Inviting member of the Council of the N.Muskhelishvili Institute of Computational Mathematics awarding scientific degrees in Computational Mathematics Ph M 01.01 C N1, 2004.
- 4. Member of the I.Javakhishvili Tbilisi State University Council Awarding Scientific Degrees in Computational Mathematics and Mechanics, Ph M 01.07 N9, 2000 2006.
- 5. Member of the Dissertation Council PD.13.00.C N1 of Pedagogic Existing at the Sulkhan-Saba Orbeliani Tbilisi State Pedagogical University
- 6. Member of the Central Jury of Republican Mathematical Olympiad for the Pupils of Secondary Schools, 2000 2002.
- 7. Member of the Council of the Georgian Mathematical Union, 1994 1997.
- 8. Member of Georgian Mathematical Union, 1977 present.

#### **Journal Referee**

- 1. Transactions of A.Razmadze Mathematical Institute, from 2016.
- 2. Journal of Partial Differential Equations, from 2015.
- 3. World Journal of Engineering and Physical Sciences (WJEPS), from 2015.
- 4. Abstract and Applied Analysis, from 2014.
- 5. International Journal of Statistics and Mathematics, from 2014.
- 6. Research and Communications in Mathematics and Mathematical Sciences, from 2014.
- 7. Advancement in Scientific and Engineering Research (ASER), from 2014.

- 8. Numerical Methods for Partial Differential Equations, from 2013.
- 9. Science Journal of Applied Mathematics and Statistics (SciencePG), from 2013.
- 10. Horizon Research Publishing (HRPUB), USA, from 2013.
- 11. Tbilisi Mathematical Journal (TMJ), from 2013.
- 12. Applied and Computational Mathematics (SciencePG), from 2013.
- 13. American Journal of Applied Mathematics (SciencePG), from 2013.
- 14. Applied Mathematics and Computation, from 2012.
- 15. FILOMAT published by Faculty of Science and Mathematics University of Nis SERBIA, from 2012.
- 16. Research and Communications in Mathematics and Mathematical Sciences (http://jyoti academicpress.com/), from 2012.
- 17. Nonlinear Analysis Series A: Theory, Methods & Applications, from 2009.
- 18. Journal of Applied Mathematics, from 2009.
- 19. CISSE, from 2009.
- 20. Georgian Mathematical Journal, from 2003.
- 21. Proceedings of A. Razmadze Mathematical Institute, from 2002.
- 22. Memoirs of Differential Equations and Mathematical Physics, from 2001.
- 23. Proceedings of Tbilisi University. Mathematics, Mechanics, Astronomy, from 2000.
- 24. Applied Mathematics Informatics and Mechanics (AMIM), from 2000.
- 25. Bulletin of Tbilisi International Center of Mathematics and Informatics (TICMI), from 1997.
- 26. Proceedings of I.Vekua Institute of Applied Mathematics, from 1995.
- 27. Reports of Enlarged Sessions of the Seminar of I.Vekua Institute of Applied Mathematics, from 1986.
- 28. Seminar of I.Vekua Institute of Applied Mathematics. Reports, from 1983.

#### **Reviewer's Activities**

- 1. Innovations in Computing Sciences and Software Engineering (Editors Tarek Sobh, Khaled Elleithy), 2010, 490 p.
- 2. Mathematical Reviews, from 2010.
- 3. Proceedings of I.Vekua Institute of Applied Mathematics, 1990, V.40, 261 p.
- 4. Zentralblatt fur Mathematik, from 1983.

#### **Edited Books and Journals**

- 1. Kharazishvili A. Mathematical Sketches. Part II. Ilia State University. Tbilisi, 2010, 204 p. (in Georgian).
- 2. Kharazishvili A. Introduction in Set Theory. Part I. Ilia Chavchavadze State University. Tbilisi, 2008, 250 p. (in Georgian).
- 3. Kharazishvili A. Mathematical Sketches. Part I. Ilia Chavchavadze State University. Tbilisi, 2007, 190 p. (in Georgian).
- 4. Proceedings of I. Vekua Institute of Applied Mathematics, V.54-55, 2004-2005.
- Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics: V.4, N1, 1989; V.6, N1, 1991; V.8, N1, 1993; V.10, N1, 1995; V.14, N1, 1999; V.16, N1-3, 2001; V.18, N1-2, 2003; V.20, N1-3, 2005; V.21-22, 2006-2007; V.22, 2008; V.23, 2009; V.24, 2010; V.25, 2011, V.26, 2012; V.27, 2013; V.28, 2014; V.29, 2015, V.30, 2016, V.31, 2017.

#### Member of the Editorial Board

- 1. Applied Mathematics Informatics and Mechanics (AMIM), from 2015.
- 2. Applied and Computational Mathematics, Science Publishing Group, USA, from 2014.

- 3. American Journal of Applied Mathematics, Science Publishing Group, USA, from 2014.
- 4. Science Journal of Applied Mathematics and Statistics, Science Publishing Group, USA, from 2014.
- 5. Universal Journal of Applied Mathematics. Horizon Research Publishing (HRPUB), USA, from 2013.
- 6. Research and Communications in Mathematics and Mathematical Sciences (http://jyoti academicpress.com/), from 2012.
- 7. Seminar of I.Vekua Institute of Applied Mathematics. Reports, from 2010.
- 8. International Journal of Computer Science and Engineering Survey (IJCSES), from 2009.
- 9. International Journal of Computer Science & Information Technology (IJCSIT), from 2009.
- 10. Proceedings of I.Vekua Institute of Applied Mathematics, from 2006.
- 11. Proceedings of All-Union Symposium in Modern Problems of Mathematical Physics. Sovremennye Problemy Mathematicheskoi Fisiki (Russian). Tbil. Gos. Univ., Tbilisi, T. I, 511 p., T. II, 407 p., 1987.

#### **Conference Organization**

- 1. Co-Chair of the Organizing Committee of the XXXI International Enlarged Sessions of the Seminar of Ilia Vekua Institute of Applied Mathematics (April 21-23, 2017, Tbilisi, Georgia).
- 2. Vice-Chair of the Second International Conference on Application of Mathematics and Informatics in Natural Sciences and Engineering AMINSE 2, Dedicated to the Centenary of Andro Bitsadze. September 21-23, 2016, Tbilisi, Georgia.
- 3. Member of the Program Committee and Invited Speaker of the VI International Conference of the Georgian Mathematical Union. July 12-16, 2015, Batumi, Georgia.
- 4. Member of the Program Committee of the Tbilisi International Conference on Computer Sciences and Applied Mathematics (TICCSAM 2015). March 21-23, 2015, Tbilisi, Georgia.
- 5. Member of the Program Committee of the V International Conference of Georgian Mathematical Union. September 8-12, 2014, Batumi, Georgia.
- 6. Lectures in the Scientific School of TSU "Step-by-step Knowledge" (Ordu Korgan, Turkey, 2014).
- 7. Caucasian Mathematics Conference (CMC), Chairman of the Session Numerical Analysis and Mathematical Modeling. September 5-6, 2014, Tbilisi, Georgia.
- 8. Member of the Program Committee of the IV International Conference of Georgian Mathematical Union dedicated to Academician Victor Kupradze (1903-1985) on the occasion of 110-th anniversary of his birthday and to the Georgian Mathematical Union on the occasion of 90 year from founding. TBILISI BATUMI, SEPTEMBER 9-15, 2013.
- Member of the International Scientific Committee of the Second International Conference "Modern Problems in Applied Mathematics" Dedicated to the 95th Anniversary of the I. Javakhishvili Tbilisi State University & 45th Anniversary of the I.Vekua Institute of Applied Mathematics of TSU. September 4-7, 2013, Tbilisi, Georgia.
- Member of the Program Committee. Chairman of the Session Numerical Analysis and Mathematical Modeling. III International Conference of Georgian Mathematical Union. Batumi, Georgia, September 2-9, 2012.
- 11. Chairman of the Session Numerical Analysis of the II International Conference Dedicated to the 70th Anniversary of the Georgian National Academy of Sciences & the 120th Birthday of its First President Academician Nikoloz (Niko) Muskhelishvili. September 15–19, 2011, Batumi, Georgia.

- 12. Member of the Organizing Committee of the Int. Conf. Modern Probl. Appl. Math., dedicated to the 90<sup>th</sup> Anniversary of the Ivane Javakhishvili Tbilisi State University & 40<sup>th</sup> Anniversary of the Ilia Vekua Inst. Appl. Math. (2008, October 7-9, Tbilisi, Georgia).
- 13. Member of the Organizing Committee of the ISAAC Conf. "Complex Analysis, Partial Differential Equations, and Mechanics of Continua" dedicated to the 100<sup>th</sup> birthday anniversary of Ilia Vekua (April 23-27, 2007, Tbilisi, Georgia).
- 14. Member of the Organizing Committee of the Fourth Congress of Georgian Mathematicians (2005, November, Tbilisi, Georgia).
- 15. Member of the Organizing Committee of the Int. Conf. Dedicated to the 80<sup>th</sup> Birthday Anniversary of Academician Ilia Vekua (1987, April 21-23, Tbilisi, Republic of Georgia).
- 16. Member of the Organizing Committee of the Enlarged Sessions of the Seminar of Ilia Vekua Institute of Applied Mathematics (1986-2017, Tbilisi, Georgia).

#### FULL LIST OF PUBLICATIONS

#### **Papers**

- 1. \*Dzhangveladze T.A. First Boundary-Value Problem for a Nonlinear Equation of Parabolic Type. Dokl. Akad. Nauk SSSR, 1983, V.269, N4, p.839-842 (in Russian). English translation: Soviet Phys. Dokl., 1983, 28, no. 4, p.323-324.
- \*Gordeziani D.G., Dzhangveladze T.A., Korshiya T.K. Existence and Uniqueness of a Solution of Certain Nonlinear Parabolic Problems. Differential'nye Uravnenyia, 1983, V.19, N7, p.1197-1207 (in Russian). English translation: Differential Equations, 1984, 19, N7, p.887-895.
- 3. Gordeziani D.G., Dzhangveladze T.A., Korshiya T.K. A Class of Nonlinear Parabolic Equations, that Arise in Problems of the Diffusion of an Electromagnetic Field. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1983, V.13, p.7-35 (in Russian, Georgian and English summaries).
- 4. Dzhangveladze T.A., Korshiya T.K., Kchmaladze Sh,E. Solvability of Gas Filtration Problem. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1983, V.13, p.38-59 (in Russian, Georgian and English summaries).
- 5. Dzhangveladze T.A. Solvability of the First Boundary Value Problem for a Nonlinear Integrodifferential Equation of Parabolic Type. Soobshch. Akad. Nauk Gruz. SSR (Bull. Acad. Sci. Georgian SSR), 1984, V.114, N2, p.261-264 (in Russian, Georgian and English summaries).
- 6. \*Dzhangveladze T.A. Nonlinear Parabolic Integrodifferential Equations. Differential'nye Uravnenyia, 1985, V.21, N1, p.41-46 (in Russian). English translation: Differential Equations, 1985, 21, N1, p.32-36.
- \*Abuladze I.O., Gordeziani D.G., Dzhangveladze T.A., Korshiya T.K. Discrete Models for a Nonlinear Magnetic-Field-Scattering Problem with Thermal Conductivity. Differential'nye Uravnenyia, 1986, V.22, N7, p.1119-1129 (in Russian). English translation: Differential Equations, 1986, 22, N7, p.769-777.
- Dzhangveladze T.A., Lyubimov B.Y., Korshiya T.K. On the Numerical Solution of a Class of Nonisothermic Problems of the Diffusion of an Electromagnetic Field. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1986, V.18, p.5-47 (in Russian, Georgian and English summaries).
- Abuladze I.O., Gordeziani D.G., Dzhangveladze T.A., Korshiya T.K. On the Numerical Modeling of a Nonlinear Problem of the Diffusion of a Magnetic Field with Regard to Heat Conductivity. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1986, V.18, p.48-67 (in Russian, Georgian and English summaries).
- 10. Dzhangveladze T.A. The Difference Scheme for One System of Nonlinear Partial Differential Equations. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1986, V.2, N3, p.40-43 (in Russian).
- 11. Dzhangveladze T.A. Averaged Model of Sum Approximation for a System of Nonlinear Partial Differential Equations. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1987, V.19, p.60-73 (in Russian, Georgian and English summaries).
- 12. Dzhangveladze T.A. Convergence of a Difference Scheme for a System of Nonlinear Partial Differential Equations. Soobshch. Akad. Nauk Gruz. SSR (Bull. Acad. Sci. Georgian SSR), 1987, V.126, N2, p.257-260 (in Russian, Georgian and English summaries).

- 13. Dzhangveladze T.A. Stability of the Stationary Solution of a System of Nonlinear Partial Differential Equations. Proc. All-Union Symp. Curr. Probl. Math. Phys., Tbilisi, 1987, V.1, p.214-221 (in Russian).
- 14. Dzhangveladze T.A. A System of Nonlinear Partial Differential Equations. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1989, V.4, N1, p.38-41 (in Russian).
- 15. Dzhangveladze T.A., Tagvarelia T.G. Convergence of a Difference Scheme for a System of Nonlinear Partial Differential Equations, that Arise in Biology. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1990, V.40, p.77-83 (in Russian, Georgian and English summaries).
- 16. Jangveladze T. Investigation and Numerical Solution of Some Systems of Nonlinear Partial Differential Equations. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1991, V.6, N1, p.25-28.
- Jangveladze T. The Difference Scheme of the Type of Variable Directions for One System of Nonlinear Partial Differential Equations. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1992, V.47, p.45-66.
- 18. Jangveladze T. Apriori Estimations for One Nonlinear Integro-differential Parabolic Problem. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1993, V.8, N1, p.35-37.
- 19. Iremadze N., Jangveladze T. On Riquire Boundary Value Problem for Charney Regularized Equation. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1993, V.8, N1, p.25-27.
- Jangveladze T., Tagvarelia T. The Difference Scheme of the Type of Variable Directions for One System of Nonlinear Partial Differential Equations, Arising in Biology. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1993, V.8, N3, p.74-75.
- Iremadze N., Jangveladze T. Stability and Convergence of Two Difference Schemes for Charney Regularized Equation. Rep. Semin. I.Vekua Inst. Appl. Math., 1993, (Dokl. Semin. Inst. Prikl. Mat. im. I.N. Vekua, 1994), V.22, p.80-86.
- 22. Jangveladze T., Kiguradze Z. The Asymptotic Behavior of the Solutions of One Nonlinear Integrodifferential Parabolic Equation. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1995, V.10, N1, p.36-38.
- 23. Iremadze N., Jangveladze T. On Limiting Process and Two Difference Schemes for Charney Regularized Equation. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1995, V.10, N1, p.27-31.
- 24. Iremadze N., Jangveladze T. Investigation and Numerical Solution of One Initial-boundary Value Problem for Charney Regularized Equation. Bull. Tbilisi Int. Center Math. Inf., 1997, V.1, p.13-14 (Web-site: http://www.viam.hepi.edu.ge/Others/TICMI).
- 25. Jangveladze T. Asymptotic Behavior  $(t \rightarrow \infty)$  of Solutions for One Nonlinear Integro-differential Parabolic Equation. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1997, V.12, N1, p.9-11.
- 26. Jangveladze T. On One Class of Nonlinear Integro-differential Parabolic Equations. Semin. I.Vekua Inst. Appl. Math. Rep., 1997, V.23, p.51-87.
- 27. Jangveladze T. Convergence of a Difference Scheme for a Nonlinear Integro-differential Equation. Proc. I.Vekua Inst. Appl. Math. (Tbiliss. Gos. Univ. Inst. Prikl. Math. Trudy), 1998, V.48, p.38-43.
- 28. Jangveladze T., Kiguradze Z. On the Difference Schemes for One Nonlinear Diffusion Model. Semin. I.Vekua Inst. Appl. Math. Rep., 1999, V.25, p.89-95.
- 29. Jangveladze T. On Stationary Solution for One System of Non-linear Partial Differential Equations. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1999, V.14, N1, p.42-44.

- Jangveladze T., Kiguradze Z. On the Asymptotic Behavior of Solution for One System of Nonlinear Integro-differential Equations. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1999, V.14, N1, p.35-38.
- 31. Batiashvili Z., Jangveladze T. Comparison Theorem for One System of Nonlinear Partial Differential Equations. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 1999, V.14, N1, p.7-9.
- 32. Jangveladze T., Kiguradze Z. Domain Decomposition for Bitsadze-Samarskii Boundary Value Problem. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2001, V.16, N1-3, p.16-19.
- 33. \*Jangveladze T., Kiguradze Z. Estimates of a Stabilization Rate as  $t \rightarrow \infty$  of Solutions of a Nonlinear Integro-Differential Equation. Georgian Math. J., 2002, V.9, N1, p.57-70.
- 34. Jangveladze T., Kiguradze Z. Estimates of a Stabilization Rate as  $t \rightarrow \infty$  of Solutions of a System of Nonlinear Integro-Differential Equations. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2003, V.18, N1-2, p.16-19.
- 35. Jangveladze T., Kiguradze Z. Estimates of a Stabilization Rate as  $t \rightarrow \infty$  of Solutions of a Nonlinear Integro-Differential Diffusion System. Appl. Math. Inform. Mech., 2003, V.8, N2, p.1-19.
- 36. Jangveladze T., Kiguradze Z. On One Nonlinear Integro-Differential Diffusion System. Bull. Georgian Acad. Sci., 2004, V.170, N1, p.42-45.
- 37. Jangveladze T., Kiguradze Z. The Asymptotic Behavior as  $t \rightarrow \infty$  of the Solution of One Nonlinear Integro-Differential Equation. Bull. Georg. Acad. Sci., 2004, V.170, N2, p.228-230.
- 38. Jangveladze T., Kiguradze Z. Long Time Behavior of Solutions to Nonlinear Integro-Differential Equation. Proc. I.Vekua Inst. Appl. Math. (Tr. Inst. Prikl. Mat. Im. I.N.Vekua), 2004-2005, V.54-55, p.65-73.
- 39. Jangveladze T.A., Kiguradze Z.V. Domain Decomposition Method for Bitsadze-Samarskii Boundary Value Problem. Trudy Tbiliss. Univ. Mat. Mekh. Astronom., 2005, V.354, N34-35, p.225-236 (in Russian, Georgian summary).
- 40. Jangveladze T. Investigation of the Asymptotic Behavior of Solution for One System of Nonlinear Integro-diferential Equations. News Letters (Series A), Sukhumi Branch of I.Javakhishvili Tbilisi State University, 2005, V.3. p.25-28 (in Georgian, English summary).
- 41. Jangveladze T., Kiguradze Z. On the Asymptotic Behaviour as  $t \rightarrow \infty$  of Solutions of One Nonlinear Integro-Differential Parabolic Equation Arising in Penetration of a Magnetic Field into a Substance. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2005, V.20, N1-3, p.8-11.
- 42. Jangveladze T., Aptsiauri M. The Asymptotic Behavior of Solutions and Finite Difference Scheme for One Nonlinear Integro-Differential Equation. Bull. Georg. Acad. Sci., 2006, V.174, N1, p.25-28 (Georgian summary).
- 43. \*Jangveladze T.A., Kiguradze Z.V. Asymptotics of a Solution of a Nonlinear System of Diffusion of a Magnetic Field into a Substance. Siberian Math. J., 2006, V.47, N5, p.1058-1070 (in Russian). English translation: Siberian Math. J., 2006, V.47, N5, p.867-878.
- 44. Jangveladze T., Kiguradze Z., Lobjanidze G. On Variational Formulation and Decomposition Methods for Bitsadze-Samarskii Nonlocal Boundary Value Problem for Two-Dimensional Second Order Elliptic Equations. Proc. I.Vekua Inst. Appl. Math., 2006-2007, V.56-57, p.56-66.
- 45. Jangveladze T., Kiguradze Z. On Nonlinear Integro-Differential Diffusion Equations Based on Maxwell's System. Proc. I.Vekua Inst. Appl. Math., 2006-2007, V.56-57, p.67-77.

- 46. \*Dzhangveladze T.A., Kiguradze Z.V. On the Stabilization of Solutions of an Initial-boundary Value Problem for a Nonlinear Integro-differential Equation. Differential'nye Uravnenyia, 2007, V.43, N6, p.833-840 (in Russian). English translation: Differential Equations, 2007, V.43, N6, p.854-861.
- 47. Jangveladze T., Kiguradze Z. Large Time Asymptotics of Solutions to a Nonlinear Integro-Differential Equation. Mem. Differential Equations Math. Phys., 2007, V.42, p.35-48.
- 48. Jangveladze T., Kiguradze Z. Large Time Behavior of Solutions and Difference Schemes to Nonlinear Integro-Differential System Associated with the Penetration of a Magnetic Field into a Substance. Appl. Math. Inform. Mech., 2008, V.13, N1, p.40-54.
- 49. Jangveladze T., Lobjanidze G. On Variational Formulation of Bitsadze-Samarskii Problem for Second Order Two-dimensional Elliptic Equation. Appl. Math. Inform. Mech., 2008, V.13, N1, p.55-65.
- 50. \*Dzhangveladze T.A., Kiguradze Z.V. Asymptotic Behavior of the Solution to a Nonlinear Integro-Differential Diffusion Equation. Differential'nye Uravnenyia, 2008, V.44, N4, p.517-529 (in Russian). English translation: Differential Equations, 2008, V.44, N4, p.538-550.
- 51. \*Jangveladze T., Kiguradze Z. Large Time Behavior of Solutions to One Nonlinear Integro-Differential Equation. Georgian Math. J. (the issue is dedicated to the memory of Prof. J.-L.Lions on the occasion of his 80<sup>th</sup> birthday anniversary), 2008, V.15, N3, p. 531-539.
- 52. Aptsiauri M., Jangveladze T., Kiguradze Z. On the Stabilization of Solution as  $t \rightarrow \infty$  and Convergence of the Corresponding Finite Difference Scheme for One Nonlinear Integro-Differential Equation. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2008, V.22, p.15-19.
- 53. Jangveladze T., Kiguradze Z., Nikolishvili M. On Investigation and Numerical Solution of One Nonlinear Biological Model. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2008, V.22, p.46-50.
- Jangveladze T., Lobjanidze G. Variational Formulation of One Nonlocal Problem for Forth Order Ordinary Differential Equation. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2008, V.22, p.51-55.
- 55. Aptsiauri M., Jangveladze T., Kiguradze Z. Large Time Behavior of Solutions and Numerical Approximation of Nonlinear Integro-Differential Equation Associated with the Penetration of a Magnetic Field into a Substance. Appl. Math. Inform. Mech., 2008, V.13, N 2, p.3-17.
- 56. \*Jangveladze T., Kiguradze Z., Neta B. Large Time Behavior of Solutions to a Nonlinear Integro-Differential System. J. Math. Anal. Appl., 2009, V.351, N1, p.382-391. doi:10.1016/j.jmaa.2008.
- 57. \*Jangveladze T.A., Lobjanidze G.B. On a Variational Statement of a Nonlocal Boundary Value Problem for a Forth-Order Ordinary Differential Equation. Differential'nye Uravnenyia, 2009, N45, N3, p.325-333 (in Russian). English translation: Differential Equations, 2009, V.45, N3, p.335-343.
- \*Jangveladze T., Kiguradze Z., Neta B. Large Time Behavior of Solutions and Finite Difference Scheme to a Nonlinear Integro-Differential Equation. Comput. Math. Appl., 2009, V.57, N5, p.799-811.
- Aptsiauri M., Jangveladze T., Kiguradze Z. On Asymptotic Behavior of Solution of One Nonlinear One-Dimensional Integro-Differential Analogue of Maxwell's System. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2009, V.23, p.5-10.
- Jangveladze T., Kiguradze Z., Nikolishvili M. On Approximate Solution of One Nonlinear Two-Dimensional Diffusion System. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2009, V.23, p.42-45.
- 61. Jangveladze T., Lobjanidze G. Variational Formulation of One Nonlocal Boundary Problem. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2009, V.23, p.46-49.

- 62. \*Jangveladze T., Kiguradze Z., Neta B. Finite Difference Approximation of a Nonlinear Integro-Differential System. Appl. Math. Comput., 2009, V.215, N2, p.615-628. doi:10.1016/j.amc. 2009.05.061.
- 63. Jangveladze T., Kiguradze Z. Finite Difference Scheme to a Nonlinear Integro-Differential Equation Associated with the Penetration of a Magnetic Field into a Substance. Proc. 2<sup>nd</sup> WSEAS Int. Conf. FINITE DIFFERENCES, FINITE ELEMENTS, FINITE VOLUMES, BOUNDARY ELEMENTS (F-and-B '09), 2009, p.186-192.
- 64. Jangveladze T., Kiguradze Z. Asymptotics of Solution and Finite Difference Scheme to a Nonlinear Integro-Differential Equation Associated with the Penetration of a Magnetic Field into a Substance. WSEAS Transactions on Mathematics, 2009, V.8, N8, p.467-477.
- 65. \*Jangveladze T., Kiguradze Z., Neta B. Large Time Asymptotic and Numerical Solution of a Nonlinear Diffusion Model with Memory. Comput. Math. Appl., 2010, V.59, N1, p.254-273. doi: 10.1016/j.camwa.2009.07.052.
- 66. \*Jangveladze T., Kiguradze Z. Asymptotics for Large Time of Solutions to Nonlinear System Associated with the Penetration of a Magnetic Field into a Substance. Appl. Math., 2010, V.55, N6, p.471-493.
- 67. Jangveladze T. Additive Models for One Nonlinear Diffusion System. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2010, V.24, p.66-69.
- 68. Jangveladze T. Investigation and Numerical Solution of System of Nonlinear Integro-Differential Equations Associated with the Penetration of a Magnetic Field in a Substance. RECENT RESEARCHES in APPLIED MATHEMATICS, 15th WSEAS Int. Conf. APPLIED MATHEMA-TICS (MATH '10), 2010, p. 79-84.
- 69. Jangveladze T., Nikolishvili M., Tabatadze B. On One Nonlinear Two-Dimensional Diffusion System. RECENT RESEARCHES in APPLIED MATHEMATICS, 15th WSEAS Int. Conf. APPLIED MATHEMATICS (MATH '10), 2010, p.105-108.
- 70. Jangveladze T., Kiguradze Z., Lobjanidze G. On Decomposition Methods and Variational Formulation for Bitsadze-Samarskii Nonlocal Boundary Value Problem for Two-Dimensional Second Order Elliptic Equations. RECENT RESEARCHES in APPLIED MATHEMATICS, 15th WSEAS Int. Conf. APPLIED MATHEMATICS (MATH '10), 2010, p.116-121.
- 71. \*Jangveladze T.A., Lobjanidze G.B. On One Nonlocal Boundary Value Problem for a Forth-Order Ordinary Differential Equation. Differential'nye Uravnenyia, 2011, V47, N2, p.181-188 (in Russian). English translation: Differential Equations, 2011, V.47, N2, p.179-186.
- \*Jangveladze T., Kiguradze Z., Neta B. Galerkin Finite Element Method for One Nonlinear Integro-Differential Model. Appl. Math. Comput., 2011, V.217, N16, p.6883-6892. doi:10.1016/j.amc. 2011.01.053.
- \*Jangveladze T., Kiguradze Z. Large Time Behavior of the Solution to an Initial-Boundary Value Problem with Mixed Boundary Conditions for a Nonlinear Integro-Differential Equation. Cent. Eur. J. Math., 2011, V.9, N4, p.866-873. DOI: 10.2478/s11533-011-0036-9.
- 74. Gagoshidze M., Jangveladze T. On One Nonlinear Diffusion System. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2011, V.25, p.39-43.
- 75. \*Aptsiauri M.M., Jangveladze T.A., Kiguradze Z.V. Asymptotic Behavior of the Solution of a System of Nonlinear Integro-Differential Equations. Differential'nye Uravnenyia, 2012, N48, N1, p.70-78 (in Russian). English translation: Differential Equations, 2012, V.48, N1, p.72-80.

- Jangveladze T., Kiguradze Z., Neta B. Finite Element Method for a System of Nonlinear Integrodifferential Equations with Mixed Boundary Conditions. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2012, V.26, p.23-28.
- 77. \*Jangveladze T., Kiguradze Z., Neta B., Reich S. Finite Element Approximations of a Nonlinear Diffusion Model with Memory. Numer. Algor., 2013, V.64, N1, p.127-155. DOI 10.1007/s11075-012-9658-7.
- 78. Jangveladze T. Variable Directions Difference Scheme for One System of Nonlinear Partial Differential Equations. Recent Advances in Mathematical Methods and Computational Techniques in Modern Science. Proc. 2nd International Conference on Applied, Numerical and Computational Mathematics. Morioka City, Iwate, Japan, April 23-25, 2013, p.119-123.
- 79. Jangveladze T., Kiguradze Z. On Some Nonlinear Partial Differential and Integro-Differential Diffusion Models. Recent Advances in Mathematical Methods and Computational Techniques in Modern Science. Proc. 2nd International Conference on Applied, Numerical and Computational Mathematics. Morioka City, Iwate, Japan, April 23-25, 2013, p.124-129.
- 80. Jangveladze T., Kiguradze Z., Lobjanidze G. On Variational Formulation and Domain Decomposition Method for Bitsadze-Samarskii Nonlocal Boundary Value Problem. Recent Advances in Mathematical Methods and Computational Techniques in Modern Science. Proc. 2nd International Conference on Applied, Numerical and Computational Mathematics. Morioka City, Iwate, Japan, April 23-25, 2013, p.130-134.
- 81. Jangveladze T., Kiguradze Z. On One Nonlinear Integro-Differential Equation with Source Term. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2013, V.27, p.23-26.
- Jangveladze T., Kiguradze Z., Kratsashvili A. Asymptotic Behavior of the Solution and Semi-Discrete Finite Difference Scheme for One Nonlinear Integro-Differential Model with Source Terms. Appl. Math. Inform. Mech., 2013,V.18, N 2, p.19-30.
- 83. Jangveladze T. On Some Properties and Approximate Solution of One System of Nonlinear Partial Differential Equations. International Workshop on the Qualitative Theory of Differential Equations, QUALITDE – 2013, Dedicated to the 100th birthday anniversary of Professor Levan Magnaradze. December 20-22, 2013, Tbilisi, Georgia, p.58-60. http://www.rmi.ge/eng/QUALITDE-2013 /workshop 2013.htm.
- 84. Jangveladze T., Kratsashvili M. Asymptotic Behavior of Solution and Semi-Discrete Difference Scheme for One Nonlinear Integro-Differential Equation with Source Term. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2014, V.28, p.50-53.
- 85. Jangveladze T. Some Properties and Numerical Solution of One-Dimensional Nonlinear Electromagnetic Diffusion System. Advances in Applied and Pure Mathematics. Proc. 7th International Conference on Finite Differences, Finite Elements, Finite Volumes, Boundary Elements. Gdansk, Poland, May 15-17, 2014, p.96-100.
- 86. Jangveladze T., Kiguradze Z. Semi-discrete Scheme for One Nonlinear Integro-Differential System Describing Diffusion Process of Electromagnetic Field. Advances in Applied and Pure Mathematics. Proc. 7th International Conference on Finite Differences, Finite Elements, Finite Volumes, Boundary Elements. Gdansk, Poland, May 15-17, 2014, p.118-122.
- 87. Jangveladze T., Kiguradze Z., Lobjanidze G. Variational Statement and Domain Decomposition Algorithms for Bitsadze-Samarskii Nonlocal Boundary Value Problem for Poisson's Two-Dimensional Equation. Hindawi Publishing Corporation. International Journal of Partial Differential Equations, Volume 2014, Article ID 680760, 8 pages, http://dx.doi.org/10.1155/2014/680760.

- 88. Jangveladze T., Kiguradze Z. On Investigation and Approximate Solution of One Nonlinear Partial Integro-Differential Equation with Source Term. Recent Advances in Applied Mathematics, Modelling and Simulation. Proceedings of the 8th International Conference on Applied Mathematics, Simulation, Modelling (ASM '14). Florence, Italy, November 22-24, 2014, p.50-55.
- 89. Jangveladze T. Some Properties of Solutions and Approximate Algorithms for One System of Nonlinear Partial Differential Equations. International Workshop on the Qualitative Theory of Differential Equations, QUALITDE – 2014, Dedicated to the 125th birthday anniversary of Professor A. Razmadze. December 18-20, 2014, Tbilisi, Georgia, p.54-57. www.rmi.ge/eng/ QUALITDE-2014 /workshop\_2014.htm
- 90. Jangveladze T., Kiguradze Z., Gagoshidze M. Large Time Behavior of Solution and Semi-Discrete Scheme for One Nonlinear Integro-Differential Equation with Source Terms. Appl. Math. Inform. Mech., 2014, V.19, N2, p.10-17.
- \*Jangveladze T., Kiguradze Z., Gagoshidze M., Nikolishvili M. Stability and Convergence of the Variable Directions Difference Scheme for One Nonlinear Two-dimensional Model. International Journal of Biomathematics. 2015, V.8, N5, 1550057 (21 pages), DOI: 10.1142/S1793524515500576
- 92. Jangveladze T. On Two Classes of Nonlinear Partial Differential Systems. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2015, V.29, p.52-55.
- 93. Jangveladze T. Some Properties of Solutions and Approximate Algorithms for One System of Nonlinear Partial Differential Equations. International Workshop on the Qualitative Theory of Differential Equations, QUALITDE – 2015, December 27-29, 2015, Tbilisi, Georgia, p.64-67. www.rmi.ge/eng/QUALITDE-2015/workshop\_2015.htm
- Jangveladze T. Long-Time Behavior of Solution and Semi-Discrete Scheme for One Nonlinear Parabolic Integro-Differential Equation. Transactions of A.Razmadze Mathematical Institute, 2016, V.170, N1, p.47-55. http://dx.doi.org/10.1016/j.trmi.2015.12.002
- 95. Jangveladze T., Kiguradze Z. Difference Scheme for One System of Nonlinear Parabolic Integro-Differential Equations. Appl. Math. Inform. Mech., 2016, V.21, N1, p.104-120.
- Jangveladze T., Gagoshidze M. Hoph Bifurcation and its Computer Simulation for One-Dimensional Maxwell Model. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2016, V.30, p.27-30.
- Jangveladze T., Kiguradze Z. Finite Difference Scheme for One Nonlinear Parabolic Integro-Differential Equation. Transactions of A.Razmadze Mathematical Institute, 2016, V.170, N3, p.395-401. http://dx.doi.org/10.1016/j.trmi.2016.09.006
- 98. Jangveladze T. Unique Solvability and Additive Averaged Rothe's Type Scheme for One Nonlinear Multi-Dimensional Integro-Differential Parabolic Problem. International Workshop on the Qualitative Theory of Differential Equations, QUALITDE – 2016, Dedicated to the 100th birthday anniversary of Professor A.Bitsadze. December 24-26, 2016, Tbilisi, Georgia p.103-106. www.rmi.ge/eng/QUALITDE-2016/workshop\_2016.htm
- 99. Jangveladze T. Investigation and Approximate Solution of Two Systems of Nonlinear Partial Differential Equations. International Journal of Pure Mathematics, Vol. 4, 2017, p.1-6. http://www.naun.org/cms.action?id=16157
- 100. Jangveladze T., Kiguradze Z., Kratsashvili M. Correctness of the Initial-Boundary Value Problem and Discrete Analogs for One Nonlinear Parabolic Integro-Differential Equation. International Journal of Pure Mathematics, Vol. 4, 2017, p.7-11. http://www.naun.org/cms.action?id=16157

- 101. Jangveladze T., Kiguradze Z. Investigation and Rothe's Type Scheme for Nonlinear Integro-Differential Multi-Dimensional Equations Associated with the Penetration of a Magnetic Field in a Substance. International Journal of Mathematical Models and Methods in Applied Sciences, 2017, V.11, p. 75-81.
- 102. Jangveladze T., Kiguradze Z., Gagoshidze M., Tabatadze B. Comparison of Two Methods of Numerical Solution of Mitchison Biological System of Nonlinear Partial Differential Equations. International Journal of Mathematics and Computers in Simulation, 2017, V.11, p. 25-31.
- 103. Jangveladze T. Well-Posedness and Approximate Solution of the Initial-Boundary Value Problem for Nonlinear Integro-Differential Equation Obtained by the Reduction of Maxwell System. Rep. Enlarged Sess. Semin. I.Vekua Appl. Math., 2017, V.31 (accepted).
- 104. Jangveladze T., Kratsashvili M. Some Properties of Solution and Finite Difference Scheme for One Nonlinear Partial Differential Model Based on Maxwell System. Mem. Differential Equations Math. Phys., 2017 (accepted).

#### Monographs

- 1. Dzhangveladze T. An Investigation of the First Boundary-Value Problem for Some Nonlinear Parabolic Integrodifferential Equations. Tbilisi State University, 1983, 59 p. (in Russian, with Georgian and English summaries).
- 2. Jangveladze T., Kiguradze Z., Neta B. Numerical Solution of Three Classes of Nonlinear Parabolic Integro-Differential Equations. Elsevier, 2016, ACADEMIC PRESS, ISBN: 978-0-12-804628-9. http://www.sciencedirect.com/science/book/9780128046289

#### **Abstracts of Reports**

- 1. Jangveladze T. On One Iterative Method of Solution of Bitsadze-Samarskii Boundary Value Problem. Abstract Rep. Undergraduate Stud. Sci. Conf. Tbilisi State University, 1975, p.5 (in Georgian).
- 2. Jangveladze T.A. Domain Decomposition Method for Bitsadze-Samarskii Boundary Value Problem for Second Order Nonlinear Elliptic Equation. Proceedings of the Postgraduate Students Scientific Conference of Ivane Javakhishvili Tbilisi State University, 1977, p.7 (in Georgian).
- 3. Gordeziani D., Jangveladze T., Korshiya T. A Class of Nonlinear Diffusion Equation. ICM, Warshaw, Sec. 11: part. diff. eq. IX, 1982, 1983, p.17 (in Russian).
- 4. Dzhangveladze T.A. Investigation and Numerical Solution of Some Nonlinear Integro-differential Parabolic Problems. Diss. Bull. Candidate's Degree. Tbilisi, 1984, 15 p. (in Russian).
- 5. Abuladze I.O., Gordeziani D.G., Dzhangveladze T.A., Korshiya T.K. Discrete Models for a Nonlinear Magnetic-field Scattering Problem with Thermal Conductivity. The XI Conf. Math. Univ. and Coll. of Georgia, 1986, p.262 (in Russian).
- Dzhangveladze T.A. On One System of Nonlinear Partial Differential Equations. Abstracts. All-Union Symp. Curr. Probl. Math. Phys., Dedicated to the 80<sup>th</sup> Birthday Aniversary of Academician I.Vekua. Tbilisi, 1987, p.16 (in Russian).
- 7. Dzhangveladze T.A. The Boundary Value Problem for One System of Nonlinear Partial Differential Equations. Abstracts of All-Union School. Functional Meth. Appl. Math. Math. Phys., Tashkent, 1988, V.1, p.22-23 (in Russian).
- 8. Jangveladze T. A Model of Plants Evolution Process. Kutaisi-Tbilisi, 1990, p.19-20 (in Georgian).

- Jangveladze T. The Convergence of the Averaged Model of Sum Approximation for One System of Nonlinear Partial Differential Equations. Abstracts. Contin. Mech. Related Probl. Anal., Symp. Dedicated to the Centenary of Academician N. Muschelishvili. "Metsniereba" Publishing House. Tbilisi, 1991, p.74.
- 10. Jangveladze T. On One Nonlinear System of Partial Differential Equations. Int. Symp. Probl. Cont. Mech., Abstracts, Tbilisi, 1997, p.127-128. (in Georgian).
- 11. Jangveladze T. On Investigation and Numerical Solution of Some Classes of Nonlinear Partial Differential Equations. Int. Symp. Dedicated to the 90<sup>th</sup> Birthday Aniversary of Academician I.Vekua. Diff. Eq. Math. Phys., Abstracts, Tbilisi, 1997, p.72 (http:// www.rmi.acnet.ge/DEMPh).
- 12. Dzhangveladze T.A. Mathematical Modelling, Investigation and Numerical Solution of Some Nonlinear Diffusion Problems. Diss. Bull. Doctor's Degree. Tbilisi, 1998, 24p. (in Georgian), 24p. (in Russian).
- 13. Jangveladze T. On One Nonlinear Integro-differential Equation. Abstracts of Talks, Symp. Dedicated to the 95<sup>th</sup> Birthday Anniversary of Academician V. Kupradze on Diff. Eq. Math. Phys., Tbilisi, 1998, p.16 (http:// www.rmi.acnet.ge/DEMPh).
- 14. Jangveladze T., Kiguradze Z. On a System of Nonlinear Integro-Differential Equations. Abstracts of Talks. Symp. Diff. Eq. Math. Phys., Tbilisi, 2003, p.8 (http://www.rmi.acnet.ge/DEMPh).
- 15. Jangveladze T., Kiguradze Z. Investigation and Numerical Solution of One Nonlinear Integro-Differential System. The Fourth Congress of Georgian Mathematicians. Abstracts, Tbilisi, 2005, p.68 (in Georgian).
- 16. Jangveladze T., Kiguradze Z. Large Time Behavior of Solutions and Difference Schemes to Nonlinear Integro-Differential System Associated with the Penetration of a Magnetic Field into a Substance. Theses. ISAAC Conf. Complex Anal., Part. Diff. Eq., Mech. Continua. Dedicated to the 100<sup>th</sup> birthday anniversary of Ilia Vekua, 2007.
- 17. 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. Theses. Int. Conf. Modern Probl. Appl. Math., Dedicated to the 90<sup>th</sup> Anniversary of the I. Javakhishvili Tbilisi State University & 40<sup>th</sup> Anniversary of the I.Vekua Inst. Appl. Math., 2008, p.58.
- 18. Jangveladze T., Kiguradze Z., Neta B. Large Time Behavior of Solutions and Finite Difference Scheme to a Nonlinear Integro-Differential System. Theses. Int. Conf. on Modern Probl. Appl. Math., Dedicated to the 90<sup>th</sup> Anniversary of the I. Javakhishvili Tbilisi State University & 40<sup>th</sup> Anniversary of the I.Vekua Inst. Appl. Math., 2008, p.62.
- 19. Jangveladze T., Kiguradze Z., Nikolishvili M. On Construction and Investigation of Variable Directions Scheme for a Two-dimensional Nonlinear Diffusion Model. Theses. Int. Conf. Modern Probl. in Appl. Math., Dedicated to the 90<sup>th</sup> Anniversary of the Iv. Javakhishvili Tbilisi State University & 40<sup>th</sup> Anniversary of the I.Vekua Inst. Appl. Math., 2008, p.63.
- 20. Jangveladze T., Lobjanidze G. On One Nonlocal Boundary Value Problem for Fourth Order Ordinary Differential Equation and its Variational Formulation. Theses. Int. Conf. Modern Probl. Appl. Math., Dedicated to the 90<sup>th</sup> Anniversary of the Iv. Javakhishvili Tbilisi State University & 40<sup>th</sup> Anniversary of the I.Vekua Inst. Appl. Math., 2008, p.64.
- 21. Jangveladze T. Semidiscrete and Discrete Additive Models for Nonlinear Electromagnetic Diffusion System Taking into Account Heat Conductivity. Fifth Congress of Mathematicians of Georgia. Abstracts of Contributed Talks, 2009, p.86 (www.rmi.ge/~gmu/GMU\_Conference/sarchevi\_k.pdf).
- 22. Jangveladze T., Kiguradze Z. Investigation and Numerical Solution of Maxwell's Nonlinear Diffusion Equations in Electromagnetic Field. International Conference Dedicated to

commemoration of Professors Elene Dekanosidze and Murman Tsuladze, outstanding representatives of the Georgian informatics scientific school "INFORMATION AND COMPUTATIONAL TECHNOLOGIES", 2010, p.70-74 (in Georgian and in English, <u>http://www.compmath.ge/pdf/konferenciis-tezisebi-18\_maisi.pdf</u>).

- 23. Jangveladze T., Kiguradze Z. Asymptotic Behavior and Numerical Resolution of Initial-Boundary Value Problem for One Nonlinear Integro-Differential System. TICMI, Advanced Courses on Boundary Value Problems for Partial Differential Equations (<u>www.mat.ub.es</u>/EMIS/.../program 2010.htm).
- 24. Jangveladze T. Asymptotic Properties of Solution for One Nonlinear Integro-differential Model Associated with the Penetration of a Magnetic Field into a Substance. First International Conference. Georgian Mathematical Union. Book of Abstracts. 2010, p.80-81.
- 25. Jangveladze T. Investigation and Numerical Solution of System of Nonlinear Integro-Differential Equations Associated with the Penetration of a Magnetic Field in a Substance. RECENT RESEARCHES in APPLIED MATHEMATICS, The 15th WSEAS Int. Conf. APPLIED MATHEMATICS (MATH '10). Plenary Lecture. Abstract. Vouliagmeni, Athens, Greece, December 29-31, 2010, p.11-12.
- 26. Jangveladze T. On One Nonlinear System Associated with the Penetration of an Electromagnetic Field in a Substance. RECENT ADVANCES in FLUID MECHANICS and HEAT & MASS TRANSFER. Proceedings of the 9th IASME/WSEAS Int. Conf. FLUID MECHANICS & AERODYNAMICS (FMA'11) and the 9th IASME/WSEAS International Conference on HEAT TRANSFER, THERMAL ENGINEERING and ENVIRONMENT (THE'11). Plenary Lecture. Abstract. Florence, Italy, August 23-25, 2011, p.26-27.
- 27. Jangveladze T., Kiguradze Z., Neta B. Investigation and Numerical Resolution of Initial-Boundary Value Problem with Mixed Boundary Conditions for a Nonlinear Integro-Differential Diffusion System. International Conference "CONTINUUM MECHANICS AND RELATED PROBLEMS OF ANALYSIS" to Celebrate the 70th Anniversary of the Georgian National Academy of Sciences & the 120th Birthday of its First President Academician Nikoloz (Niko) Muskhelishvili. Book of Abstracts. Tbilisi, Georgia, September 9–14, 2011, p.161.
- 28. Jangveladze T. On the Parabolic Regularization of One Nonlinear Diffusion System. Abstracts. II International Conference. Dedicated to the 70th Anniversary of the Georgian National Academy of Sciences & the 120th Birthday of its First President Academician Nikoloz (Niko) Muskhelishvili. September 15–19, 2011, Batumi, Georgia, p.129.
- 29. Jangveladze T., Kiguradze Z., Neta B., Reich S. Finite Element Approximations of a Nonlinear Diffusion Model with Memory. Technion Israel Institute of Technology, Department of Mathematics. Seminar: Nonlinear Analysis and Optimization. 2011.
- Jangveladze T. On One Nonlinear One-dimensional Diffusion Model. Abstracts. III International Conference. Georgian Mathematical Union. Book of Abstracts. Batumi, Georgia, September 2–9, 2012, Batumi, Georgia, 2012, p.164-165.
- 31. Jangveladze T. Investigation and Numerical Resolution of Some Nonlinear Partial Differential and Integro-Differential Models. 5th WSEAS International Conference on FINITE DIFFERENCES -FINITE ELEMENTS - FINITE VOLUMES - BOUNDARY ELEMENTS (F-and-B '12). Plenary Lecture. Prague, Czech Republic, September 24-26, 2012, p.12-13.
- 32. Jangveladze T. Variable Directions Difference Scheme for One System of Nonlinear Partial Differential Equations. WSEAS, 2nd International Conference on Applied, Numerical and Computational Mathematics (ICANCM '13). Plenary Lecture. Abstract. Morioka City, Iwate, Japan, April 23-25, 2013, p.12-13.

- 33. Jangveladze T., Kiguradze Z. On Some Nonlinear Partial Differential and Integro-Differential Diffusion Models. 2nd International Conference on Applied, Numerical and Computational Mathematics (ICANCM '13). Morioka City, Iwate, Japan, April 23-25, 2013.
- 34. Jangveladze T., Kiguradze Z., Lobjanidze G. On Variational Formulation and Domain Decomposition Method for Bitsadze-Samarskii Nonlocal Boundary Value Problem. 2nd International Conference on Applied, Numerical and Computational Mathematics (ICANCM '13). Morioka City, Iwate, Japan, April 23-25, 2013.
- 35. Jangveladze T. Difference Scheme of Variable Directions and Averaged Model of Sum Approximation for One Nonlinear System. Second International Conference "Modern Problems in Applied Mathematics" Dedicated to the 95th Anniversary of the I. Javakhishvili Tbilisi State University & 45th Anniversary of the I.Vekua Institute of Applied Mathematics of TSU. Book of Abstracts. 4.09.2013-7.09.2013, Tbilisi, p.46-47.
- 36. Jangveladze T., Kiguradze Z. Investigation and Numerical Solution of Nonlinear Integro-Differential System Associated with the Penetration of an Electromagnetic Field. IV INTERNATIONAL CONFERENCE OF THE GEORGIAN MATHEMATICAL UNION dedicated to Academician Victor Kupradze (1903 – 1985) on the occasion of 110-th anniversary of his birthday and to the Georgian Mathematical Union on the occasion of 90 year from founding. TBILISI – BATUMI, SEPTEMBER 9 – 15, 2013.
- 37. Gagoshidze M., Jangveladze G., Jangveladze T., Kiguradze Z. Large Time Behavior and Semi-Discrete Scheme for One Nonlinear Partial Integro-Differential Equation. SIAM SEAS Conference, Florida Institute of Technology Melbourne, USA, Florida, March 29-30, 2014. SIAM Abstracts Book, 2014, p.47.
- 38. Asanishvili G., Jangveladze G., Jangveladze T., Kiguradze Z. Asymptotic Property and Semidiscrete Scheme for One Nonlinear Integrodifferential System Associated with the Penetration of a Magnetic Field into a Substance. SIAM SEAS Conference, Florida Institute of Technology Melbourne, USA, Florida, March 29-30, 2014. SIAM Abstracts Book, 2014, p.48.
- 39. Jangveladze T. Finite Difference and Finite Element Approximations for One Nonlinear Partial Integro-Differential Equation. 7th International Conference on Finite Differences, Finite Elements, Finite Volumes, Boundary Elements. Plenary Lecture. Gdansk, Poland, May 15-17, 2014. p.31.
- 40. Jangveladze T., Kiguradze Z. Semi-Discrete Scheme for One Averaged System of Nonlinear Integro-Differential Equations. Caucasian Mathematics Conference, CMC I, Book of Abstracts, Tbilisi, September 5-6, 2014, p.111-112.
- 41. Jangveladze T., Gagoshidze M. On Numerical Solution of One Nonlinear Multi-Dimensional System of Partial Differential Equations. V Annual Conference of Georgian Mathematical Union. Book of Abstracts, September 8-12, 2014, Batumi, Georgia, p.107.
- 42. Jangveladze T., Kiguradze Z., Kratsashvili M. One Nonlinear Model Based on Maxwell System. SIAM SEAS Conference, University of Alabama at Birmingham, USA, Alabama, March 20-22, 2015. SIAM Abstracts Book, 2015, p.39
- 43. Jangveladze T., Kiguradze Z., Asanishvili G., Jangveladze G. On One System of Nonlinear Multidimensional Partial Differential Equations. SIAM SEAS Conference, University of Alabama at Birmingham, USA, Alabama, March 20-22, 2015. SIAM Abstracts Book, 2015, p.39-40.
- 44. Jangveladze T. Investigation and Numerical Resolution of Two Types Nonlinear Partial Integro-Differential Models. VI International Conference of the Georgian Mathematical Union. Book of Abstracts, Invited Speaker, September 12-16, 2015, Batumi, Georgia, p.44-45.
- 45. Jangveladze T., Kiguradze Z., Kratsashvili M. Asymptotic Behavior of Solution and Semi-Discrete Scheme for One Nonlinear Averaged Integro-Differential Equation with Source Term. VI International Conference of the Georgian Mathematical Union. Book of Abstracts, September 12-16, 2015, Batumi, Georgia, p.123-124.

- 46. Jangveladze T., Kiguradze Z. On Some Partial Differential and Integro-Differential Nonlinear Models. Swedish-Georgian Conference in Analysis & Dynamical Systems. July 15-22, Tbilisi, Georgia, 2015, p.17-18.
- 47. Jangveladze T. On Two Nonlinear Partial Integro-Differential Models. 4<sup>th</sup> International Conference on Applied and Computational Mathematics (ICACM'15). Plenary Lecture. Seoul, Korea, September 5-7, 2015. p.18.
- 48. Jangveladze T., Jangveladze G., Kiguradze Z. Economical Finite-Difference Scheme for One System of Nonlinear Multi-Dimensional Partial Differential Equations. SIAM Annual Meeting (AN16), The Westin Boston Waterfront, Boston, Massachusetts, USA, July 11-15, 2016. SIAM Abstracts Book, 2016, p.22.
- 49. Jangveladze T., Kratsashvili M. On the Stability of Stationary Solution and Numerical Approximation for One Nonlinear Model. SIAM Annual Meeting (AN16), The Westin Boston Waterfront, Boston, Massachusetts, USA, July 11-15, 2016. SIAM Abstracts Book, 2016, p.22.
- 50. Jangveladze T., Kiguradze Z. Stabilization of Solution and Discrete Analogs for One Nonlinear Integro-Differential Equation Based on Maxwell System. The Second International Conference on "Application of Mathematics and Informatics in Natural Sciences and Engineering" Dedicated to the Centenary of Andro Bitsadze. September 21-23, Tbilisi, Georgia, 2016.
- 51. Jangveladze T. Investigation and Approximate Solution of Two Systems of Nonlinear Partial Differential Equations. The 2017 International Conference on Pure Mathematics Applied Mathematics (PM-AM 2017), Plenary Lecture. April 9-11, Athens, Greece, 2017.
- 52. Jangveladze T., Kiguradze Z., Kratsashvili M. Some Properties of Solution and Finite Difference Scheme for Integro-Differential Model with Source Terms Based on Maxwell System. International Conference on Mathematics and Engineering 2017 (ICOME-2017). May 10-12, Istanbul, Turkey, 2017, p.277.

#### **Books and other Publications**

- 1. Jangveladze T.A. On One Iterative Method of Solution of Bitsadze-Samarskii Boundary Value Problem. Manuscript, Faculty of Applied Mathematics and Cybernetics of Tbilisi State University, 1975, 15 p. (in Georgian).
- 2. Jangveladze T.A. Domain Decomposition and Iterative Methods of Solution of Bitsadze-Samarskii Boundary Value Problem for Second Order Elliptic Equations. Manuscript, Faculty of Applied Mathematics and Cybernetics of Tbilisi State University, 1976, 25 p. (in Georgian).
- 3. Jangveladze T.A. Investigation and Numerical Solution of One Nonlinear Parabolic Problem. Manuscript, Faculty of Applied Mathematics and Cybernetics of Tbilisi State University, 1977, 35 p. (in Georgian).
- Dzhangveladze T.A. Investigation and Numerical Solution of Some Nonlinear Integro-differential Parabolic Problems. Dissertation of Candidate's Degree of Physical and Mathematical Sciences (Ph.D). Nikoloz Muskhelishvili Institute in Computational Mathematics of Georgian Academy of Sciences. Tbilisi, 1984, 115 p. (in Russian).
- 5. Ambroladze A., Lobjanidze G., Mchedlishvili N., Shvania K., Sasheniuk T., Tsiskaridze K., Kharazishvili A., Jaiani G., Jangveladze T. Problems and Examples in Elementary Mathematics. (Editor Jaiani G.), Tbilisi State University. 1992, 272 p. (in Georgian).

- Dzhangveladze T.A. Mathematical Modeling, Investigation and Numerical Solution of Some Nonlinear Diffusion Problems. Doctoral Dissertation of Physical and Mathematical Sciences (Dr. Habil.). Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia, 1998 p.213 (in Russian).
- 7. Kharazishvili A., Korshiya T., Sasheniuk T., Jangveladze T. A Collection of Problems in Elementary Mathematics. (Editor Kharazishvili A.), Tbilisi, 2000, 114 p. (in Georgian).
- 8. Kharazishvili A., Jangveladze T., Mchedlishvili N., Kirtadze A. The First Georgian Mathematical Olympiad in the XXI-th Century. (Editor Kharazishvili A.), Tbilisi, 2001, 150 p. (in Georgian).
- 9. Kharazishvili A., Jangveladze T. The Final of the Pupils Mathematical Olympiad (2001-2002 academic year). J. Phys. and Math. at School, N118, 2002, p.48-64 (in Georgian).
- 10. Gogishvili G., Vepkhvadze T., Meladze G., Jangveladze T. Examples in Mathematics. Tbilisi State University. 2004, 118 p. (in Georgian).
- 11. Jangveladze T. Methods of Approximate Solution of Ordinary Differential Equations. University Press, Tbilisi, 2005. 309 p. (in Georgian).
- 12. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Liniar Algebra. Lectures in Mathematics, N1-12. Tbilisi, 2006, 172 p. (in Georgian).
- 13. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Mathematical Analysis. Lectures in Mathematics, N1-12. Tbilisi, 2007, 212 p. (in Georgian).
- 14. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Mathematical Analysis. Lectures in Mathematics, N13-24. Tbilisi, 2007, 160 p. (in Georgian).
- 15. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Mathematics. Lecture Course with Exercises. Tbilisi, 2008, 515 p. (in Georgian).
- 16. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Mathematics. Lecture Course with Exercises. Second edition. Tbilisi, 2009, 515 p. (in Georgian).
- 17. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Higher Mathematics (Calculus). Tbilisi, 2010, 540 p. (in Georgian).
- 18. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Calculus. Tbilisi, 2011, 396 p. (in Georgian).
- 19. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Liniar Algebra. Tbilisi, 2011, 154 p. (in Georgian).
- Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Precalculus. Tbilisi, 2012, 142 p. (in Georgian).
- Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Precalculus. Second revised edition. Tbilisi, 2013, 189 p. (in Georgian).
- 22. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Precalculus. Third revised edition. Tbilisi, 2015, 203 p. (in Georgian).
- 23. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Calculus. Second revised edition. Tbilisi, 2015, 396 p. (in Georgian).
- 24. Lobjanidze G., Mchedlishvili N., Skhirtladze N., Jangveladze T. Liniar Algebra. Second revised edition. Tbilisi, 2015, 154 p. (in Georgian).
- 25. Jaiani G., Jangveladze T. Andro Bitsadze 100. Newspaper "Tbilisi State University", 16 June, 2016 (in Georgian).

- 26. Kharibegashvili S., Jangveladze T., Jokhadze O. Academician Andro Bitsadze 100. Life and Scientific Activity of Academician Andro Bitsadze. Georgian National Academy of Sciences, 2016, 76 p. (in Georgian).
- 27. Kharibegashvili S., Kokilashvili V., Jangveladze T. On the occasion of Andro Bitsadze's 100th birthday anniversary (May 22, 1916 September 6, 1994). Transactions of A. Razmadze Mathematical Institute (2016), V.170, N3, p. 297-299. http://dx.doi.org/10.1016/j.trmi. 2016.10.001
- 28. Kharibegashvili S., Jangveladze T., Jokhadze O. Academician Andro Bitsadze. Mathematics, Popular Science Magazine. I.Javakhishvili Tbilisi State University, Faculty of Exact and Natural Sciences, 2017 (in Georgian) (accepted).

### Last Updated – August 6, 2017