## CURRICULUM VITAE

## Prof. Merab Svanadze

## PERSONAL INFORMATION

Name, Family Name Merab Svanadze
Date of birth 11 July, 1955

Contact Information Mobil: 5 77 553384, +995 5 77 553384,

E-mail: svanadze@iliauni.edu.ge



# EDUCATION & PROFESSIONAL TRAINING

Dates (from – to)
 Name and type of organization
 Faculty/Training/Course
 22 March, 2004
 I. Javakhishvili Tbilisi State University
 Solid Mechanics

• Type of qualification awarded Professor, diploma № 000473

• Dates (from – to) 26 June, 1998

Name and type of organization
 I. Javakhishvili Tbilisi State University

Faculty/Training/Course
 Solid Mechanics

• Type of qualification awarded Doctor of Physical and Mathematical Sciences (Doct. Habilitation),

diploma № 000740

• Dates (from – to) 15 August, 1990

Name and type of organization
 I. Javakhishvili Tbilisi State University

Faculty/Training/Course
 Mathematical Physics

• Type of qualification awarded Senior Research Scientist, diploma CH № 065481

• Dates (from – to) 5 December, 1984

Name and type of organization
 I. Javakhishvili Tbilisi State University

Faculty/Training/Course
 Mathematical Physics

• Type of qualification awarded Candidate of Physical and Mathematical Sciences (Ph. D),

Diploma ΦM № 022823

• Dates (from – to) 1972 - 1977

Name and type of organization
 I. Javakhishvili Tbilisi State University (Georgia)

Faculty/Training/Course
 Faculty of Mechanics and Mathematics

Type of qualification awarded
 Graduated with honours diploma in Mathematics

• Dates (from – to) 1962 - 1972

Name and type of organization
 Secondary School

Type of qualification awarded school-leaving certificate with gold medal

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## **EMPLOYMENT**

Dates (from – to)     Employer     Rank/Position held	2006 - present Ilia State University (Tbilisi, Georgia) Full Professor of Institute for Fundamental and Interdisciplinary Mathematics Research
Dates (from – to)     Employer     Rank/Position held	<ul><li>1996 - 2006</li><li>I. Vekua Institute of Applied Mathematics of Tbilisi State University (Georgia)</li><li>Head Research Scientist</li></ul>
Dates (from – to)     Employer     Rank/Position held	1993 - 1995 I. Javakhishvili Tbilisi State University Doctorant
Dates (from – to)     Employer     Rank/Position held	<ul><li>1988 -1993</li><li>I. Vekua Institute of Applied Mathematics of Tbilisi State University</li><li>Senior Research Scientist</li></ul>
Dates (from – to)     Employer     Rank/Position held	1986 -1988 I. Vekua Institute of Applied Mathematics of Tbilisi State University Research Scientist
Dates (from – to)     Employer     Rank/Position held	1981 -1986 I. Vekua Institute of Applied Mathematics of Tbilisi State University Junior Research Scientist
Dates (from – to)     Employer     Rank/Position held	<ul><li>1979 - 1981</li><li>I. Vekua Institute of Applied Mathematics of Tbilisi State University</li><li>Mathematician</li></ul>
Dates (from – to)     Employer     Rank/Position held	<ul><li>1977 - 1979</li><li>I. Vekua Institute of Applied Mathematics of Tbilisi State University</li><li>Engineer – Mathematician – Programmer</li></ul>
Dates (from – to)     Employer     Rank/Position held	<ul><li>1976 - 1977</li><li>I. Vekua Institute of Applied Mathematics of Tbilisi State University</li><li>Senior Assistant</li></ul>
Dates (from – to)     Employer     Rank/Position held	2007 (January) – 2008 (January) I. Javakhishvili Tbilisi State University Head of Department of Education
Dates (from – to)     Employer     Rank/Position held	1999 - 2004 Faculty of Mechanics and Mathematics of I. Javakhishvili Tbilisi State University Professor
Dates (from – to)     Employer     Rank/Position held	2000 - 2005 University CAC (Caucasus Academic Centre), Tbilisi, Georgia Rector and Professor
Dates (from – to)     Employer     Rank/Position held	1998 - 2000 Tbilisi Independent University "Iberia" Prorector (Deputy Rector) and Professor
Dates (from – to)     Employer     Rank/Position held	1988 - 1995 Georgian Technical University Part-time Assistant

## CONGRESSES & CONFERENCES

## 17 Congresses and 49 International conferences:

- 1. 12<sup>th</sup> National Congress on Theoretical and Applied Mechanics, 6-10 September, 2017, Sofia, Bulgaria
- 2. Int. Mech Engng. Congress & Exposition (2016), Phoenix, AZ, USA
- 3. 11th International Congress on Thermal Stresses, 2016, Salerno, Italy
- 4. 11th HSTAM International Congress on Mechanics, 2016, Athens, Greece
- 5. Int. Mech Engng. Congress & Exposition (2015), Houston, TX, USA
- 6. The 2015 AMMCS-CAIMS Congress (2015), Waterloo, Ontario, Canada
- 7. 17th US National Congress on Teoretical and Applied Mechanics (2014), Lansing, MI, USA
- 8. 10th Int. Congress on Thermal Stresses (2013), Nanjing, China
- 12<sup>th</sup> National Congress on Theoretical and Applied Mechanics (2013), Varna, Bulgaria
- 10. 9th Int. Congress on Thermal Stresses (2011), Budapest, Hungary
- 11. 17th Congress of the European Society of Biomechanics (2010), Edinburgh, UK
- 12. 11<sup>th</sup> National Congress on Theoretical and Applied Mechanics (2009), Borovets, Bulgaria
- 13. 8th Int. Congress on Thermal Stresses (2009), Urbana-Champaign, Illinois, USA
- 16<sup>th</sup> Congress of the European Society of Biomechanics (2008), Lucerne, Switzerland
- 15. 6<sup>th</sup> Int. Congress on Industrial and Applied Mathematics, ICIAM 07 (2007), Zurich, Switzerland
- 16. 5th World Congress in Biomechanics (2006), Munich, Germany
- 17. 5th Int. Congress on Thermal Stresses (2003), Blacksburg, Virginia, USA
- 1. Int. Conference on Engineering Vibration, 4-7 September 2017, Sofia, Bulgaria
- 2. SIAM Annual Meeting (AN17), 10-14 July, 2017, Pittsburgh, PA, USA
- 3. 5th Int. Conference on Material Modelling, 13-16 June, 2017, Rome, Italy
- 4. *GAMM2017*, 88th Annual Scientific Conference, 6-10 March, 2017, Weimar, Germany
- 5. 40th Solids Mechanics International Conference (2016), Warsaw, Poland
- 6. SIAM Annual Meeting (AN16), 2016, Boston, Massachusetts, USA
- 7. AIMS Conference on Dynamical Systems, Differential Equations and Applications, 1-5 July, 2016, Orlando, USA
- 8. 87th GAMM Annual Scientific Conference, 2016, Braunschweig, Germany
- 9. 9th EuroMech Solid Mechanics Conference (2015), Madrid, Spain
- 10. 7th Int. Conference on Porous Media (2015), Padova, Italy
- 11. Int. Conference: GAMM 2015 (2015), Lecce, Italy
- 12. 2nd International Conference on Continuous Media with Microstructure (2015), Łagów, Poland
- 13. 39th Solids Mechanics International Conference (2014), Zakopane, Poland
- AIMS Conference on Dynamical Systems and Differential Equations (2014), Madrid, Spain
- 15. Int. Conference on Mathematical Methods and Models in Biosciences (2014), Sofia, Bulgaria
- 16. Int. Conference: GAMM 2014 (2014), Erlangen, Germany
- SIAM Conference on Analysis of Partial Differential Equations (2013), Lake Buena Vista, Florida, USA
- 18. Int. Conference on Mathematical Methods and Models in Biosciences (2013), Sofia, Bulgaria
- 19. 7th M.I.T. Conference on Computational Fluid and Solid Mechanics, Focus: Multiphysics & Multiscale (2013), Cambridge, MA, USA
- 20. 4th Int. Conference: New Trends in Fluid and Solid Models (2013), Salerno, Italy
- 21. 38th Solid Mechanics Int. Conference (2012), Warsaw, Poland
- 22. Int. Conference on Mathematical Methods and Models in Biosciences (2012), Sofia, Bulgaria
- 23. 4<sup>th</sup> Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences (2012), Varna, Bulgaria

- 24. 4th Int. Conference on Porous Media (2012), West Lafayette, Indiana, USA
- 25. Mathematical Models and Analytical Problems for Special Materials, INdAM 2012 Workshop (2012), Roma, Italy
- 26. Int. Conference: GAMM 2012 (2012), Darmstadt, Germany
- 7th Vienna International Conference on Mathematical Modelling (2012), Vienna, Austria
- 28. 2<sup>nd</sup> Int. Conference on Material Modelling (2011), Paris, France
- 29. 16<sup>th</sup> Int. Conference: Waves and Stability in Continuum Media (2011), Brindisi, Italy
- 30. Int. Conference: GAMM 2011 (2011), Graz, Austria
- 31. 37th Solid Mechanics Int. Conference (2010), Warsaw, Poland
- 32. Int. Conference: GAMM 2010 (2010), Karlsruhe, Germany
- 33. 7th EuroMech Solid Mechanics Conference (2009), Lisbon, Portugal
- 34. 2<sup>nd</sup> Int. Conference: New Trends in Fluid and Solid Models (2009), Salerno, Italy
- 35. Int. Conference: GAMM 2008 (2008), Bremen, Germany
- 36. Int. Conference: Modern Problems in Applied Mathematics, 2008, Tbilisi, Georgia
- 37. 14<sup>th</sup> Int. Conference: Waves and Stability in Continuum Media (2007), Baia Samuele, Ragusa, Italy
- 38. Int. Conference: GAMM 2006 (2006), Berlin, Germany
- 39. 13<sup>rd</sup> Int. Conference: Waves and Stability in Continuum Media (2005), Acireale, Italy
- 40. Int. Conference: GAMM 2005 (2005), Luxembourg
- 41. Int. Conference: GAMM 2004 (2004), Dresden, Germany
- 42. Int. Conference: GAMM 2003 (2003), Abano Terme-Padua, Italy
- 43. Advanced School at CISM (2003), Udine, Italy
- 44. Int. Conference: GAMM 2001 (2001), Zürich, Switzerland
- 45. Int. Conference: GAMM 98 (1998), Bremen, Germany
- 46. Int. Conference: Diffraction Theory (1996), Freudenstadt, Germany
- 47. Int. Conferences: Problems and Methods in Mathematical Physics (1993), Chemnitz, Germany
- 48. Int. Conference: Differential Equations (1989), Rosse, Bulgaria
- 49. Int. Conferences: Problems and Methods in Mathematical Physics (1988), Chemnitz, Germany

# OTHER ACTIVITIES & MEMBERSHIP

Member of the Council of the Faculty of Natural Sciences and Engineering: at Ilia State University (January 2015 – present)

## Member of the Academic Council:

at Ilia State University (June 2009 – July 2010)

## Member of the Representative Council:

at Ilia State University (2006 - June 2009, July 2010 - March 2012)

#### Member of the Scientific Councils:

at I.Vekua Institute of Applied Mathematics of Tbilisi State University (2000 - 2006) of Doctoral Dissertation at Tbilisi State University (2000 - 2006)

#### Memberships in Professional International Societies:

American Mathematical Society (1999 – present)

New York Academy of Sciences (1995 – present)

ASME (American Society of Mechanical Engineers) (2015 - present) (#100813170)

GAMM (Gesellschaft für Angewandte Mathematik und Mechanik, International Society of Applied Mathematics and Mechanics) (1996 – present) (#3180)

European Mechanics Society (2009 – present) (#10023)

European Society of Biomechanics (2006 – present) (member of the Liaison Committee, 2006-2010)

SIAM (Society for Industrial and Applied Mathematics) (2006 – present) (# 001004902) International Society of Porous Media (2012 – present)

### Member of Editorial Board of the International Scientific Journals:

Le Matematiche, Journal of Pure and Applied Mathematics, Associate Editor (2009-2016)

Trends in Applied Sciences Research (New York, USA) (2007-2010)

Seminar of I. Vekua Institute of Applied Mathematics, Reports (2009-present)

Editor of volumes 14, # 2; 16, #1-3 and 18, #1-2 of the Reports of Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics

#### Member of Scientific Committee of the International Conferences:

Member of Program Committee of the Int. Conference on Mathematical Methods and Models in Biosciences, 14-19 June, 2015, Blagoevgrad, Bulgaria

Member of Program Committee of the Int. Conference on Mathematical Methods and Models in Biosciences, 22-27 June, 2014. Sofia, Bulgaria

Member of the International Scientific Committee and cochairman of the section *Solid Mechanics* of the International Conference *Modern Problems in Applied Mathematics*, 7-9 October, 2008, Tbilisi, Georgia

Chairman of Local Organizing Committee of ISAAC (International Society for Analysis, Applications and Computation) International Conference, 23-27 April, 2007, Tbilisi, Georgia

#### Keynote lectures:

4th Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences (2012), Varna, Bulgaria Int. Conference: GAMM 2012 (2012), Darmstadt, Germany

#### Invited speaker:

4th Int. Conference: New Trends in Fluid and Solid Models (2013), Salerno, Italy

## Chair of the technical sessions at:

12th National Congress on Theoretical and Applied Mechanics, 6-10 September, 2017, Sofia, Bulgaria

International Mechanical Engineering Congress & Exposition 2015 (2015 IMECE), Houston, TX, USA

2nd International Conference on Continuous Media with Microstructure (2015),

## Łagów, Poland

12th National Congress on Theoretical and Applied Mechanics (2013), Varna, Bulgaria Int. Conference on Mathematical Methods and Models in Biosciences (2014, 2013, 2012), Sofia, Bulgaria

Inter. Conference GAMM2012 (2012), Darmstadt, Germany (chair and invited speaker)

9th Int. Congress on Thermal Stresses (2011), Budapest, Hungary

2<sup>nd</sup> Int. Conference on Material Modelling (2011), Paris, France

11th National Congress on Theoretical and Applied Mechanics (2009), Borovets, Bulgaria

8th Int. Congress on Thermal Stresses (2009), Urbana-Champaign, Illinois, USA

5<sup>th</sup> Int. Congress: Thermal Stresses (2003), Blacksburg, Virginia, USA

#### Visited Professor:

University of Salerno, Italy (February 2014, April 2013, July 2012, March 2009, July 2005, February-March 2005, December 2004), (Prof. M.Ciarletta)

University of Catania, Italy (July 2012, July, February 2010, July, February 2009, June 2008, June, March 2005), (Prof. A. Scalia)

University of Napoli, Italy (March 2011, February 2008, July 2004), (Prof. L. Nappa and Prof. S. De Cicco)

Technical University of Catalunya, Barcelona, Spain (October 2006), (Prof. R. Quintanilla)

University of Essen, Germany (November 2000), (Prof., Dr. R. de Boer) University Konstanz, Germany (October 2000), (Prof., Dr. R. Racke)

## Reviewer of the International Journals:

- 1. Applied Mathematics Letters
- 2. Archives of Mechanics
- 3. Asian-European Journal of Mathematics
- 4. Computational & Applied Mathematics
- 5. Computers and Mathematics with Applications
- 6. European Journal of Mechanics, A/Solids
- 7. International Journal of Engineering Science
- 8. International Journal on Mathematical Methods and Models in Biosciences
- 9. International Journal of Mathematics and Mathematical Sciences
- 10. International Journal of Solids and Structure
- 11. Journal of Engineering Mathematics
- 12. Journal of the Australian Mathematical Society, Ser. B: Applied Mathematics (The ANZIAM Journal)
- 13. Journal of the Franklin Institute
- 14. Journal of Thermal Stresses
- 15. Journal of Vibration and Control
- 16. Mathematical Methods in the Applied Sciences
- 17. Mathematical Problems in Engineering
- 18. Mathematical Reviews
- 19. Mathematics and Mechanics of Solids
- 20. Mathematica Slovaca
- 21. Meccanica
- 22. Mechanics of Advanced Materials and Structures
- 23. Mechanics Research Communications
- 24. Multidiscipline Modeling in Materials and Structures
- 25. Numerical Methods for Partial Differential Equations
- 26. Structural Engineering and Mechanics, An International Journal
- 27. TamKang Journal of Science and Engineering
- 28. Zeitschrift für Angewandte Mathematik und Mechanik

#### Biography is included in the book:

Who's Who in the World, 2006 (23rd Edition, November, 2005, Marquis Who's Who LLC, USA)

## **ACADEMIC & RELATED AWARDS**

Award of the European Society of Biomechanics (in recognition of contribution to the furtherment of Biomechanics in Georgia), 2006

#### RESEARCH

Research Fields:

Elasticity and thermoelasticity

Mechanics of Solids

Mechanics of Porous Media

Biomechanics

Micro- and Nanomechanics

Continuum Mechanics

Waves and Vibrations in Solids

Theory of Mixtures

**Boundary Integral Equations** 

Mathematical Physics

Differential and Integral Equations

## **GRANTS RECEIVED**

Grant of Shota Rustaveli National Science Foundation, Research Project (Grant # FR/18/5-102/14): Investigation of problems of the mathematical theories of multiporosity materials (May 2015 – May 2017)

Grant of Ilia State University: *Steady vibrations problems of the theory of elasticity for materials with a double-porosity structure* (January – December 2015)

Grant of Ilia State University: Boundary value problems of the full coupled theory of thermoelasticity for double-porosity materials (January – December 2014)

Travel Grant of Shota Rustaveli National Science Foundation (2013)

Grant of Ilia State University: *Investigation of boundary value problems of the theory of thermoelasticity for double-porosity materials* (January – December 2013)

Grant of Ilia State University: Investigation of boundary value problems of the full coupled theory of elasticity for double-porosity materials (January – December 2012)

Grant of Shota Rustaveli National Science Foundation (the Georgia National Science Foundation. Research Project (Grant # GNSF/ST08/3-388): *Investigation of the problems of the theories of elasticity and thermoelasticity for solids with microstructure* (March 2009 - February 2012)

Travel Grant of the Georgian National Science Foundation (2007)

Grant of Georgian National Science Foundation. Research Project (Grant # GNSF/ST06/3-033): *Investigation of the problems of the theory of elasticity and thermoelasticity for binary mixtures* (October 2006 –September 2009)

Grant of Ministry of Education and Science of Georgia. Research Project: Investigation of the boundary value and boundary-contact value problems of mathematical theory of elasticity (2005)

Grant of University Napoli (2004)

DAAD (Deutscher Akademischer Austauschdienst) Stipendium, RWTH Aachen, Germany (Prof., Dr. P. Hermann and Prof., Dr. H. Niemeyer) (1995)

# LIST OF PUBLICATIONS & VIDEO LECTURES

175 publications (3 monographs, 1 text-book, 94 research papers and 77 conference abstracts) and 2 video lectures

## Monographs:

- 1. Boundary-contact Value Problems of the Elasticity Theory, Tbilisi University Press, Tbilisi, 1980, 88 p. (with D.G.Natroshvili, A.J. Djagmaidze).
- 2. Basic Boundary and Boundary-contact Value Problems of Anisotropic Elastostatics, Tbilisi University Press, Tbilisi, 1981, 84 p. (with D.G. Natroshvili).
- 3. Some Problems of the Linear Theory of Elastic Mixtures, Tbilisi University Press, Tbilisi, 1986, 215 p. (with D.G.Natroshvili, A.J. Djagmaidze).

#### Text-book:

1. Elementary Mathematics in Banking, Ilia State University Publ., Tbilisi, 2010, 156 p (in Georgian).

## Research papers:

- 1. Potential type integrals on infinite manifolds, *Bulletin Acad. Sci. of Georgia*, v. 93, No 2, pp. 305-308, 1979.
- 2. Some contact problems for piece-wise homogeneous bodies, *Proceed. Conference in the Theory of Elasticity,* Erevan, November 13-16, 1979, pp. 242-245 (with D. G. Natroshvili, A. J. Djagmaidze).
- 3. Asymptotic estimates of the potential type integrals on infinite manifolds, *Some Problems of the Theory Elasticity*, Tbilisi University Press, Tbilisi, pp.114-128, 1980.
- 4. Dynamical problems of coupled thermoelasticity for piece-wise homogeneous bodies, *Proceed. of I.Vekua Inst. of Applied Math.*, v. 10, pp. 99-190, 1981 (with D. G. Natroshvili).
- 5. Effective solution of some dynamical problems for anisotropic elastic bodies, *Bull. Acad. Sci. of Georgia*, v. 104, No 2, pp. 313-316, 1981 (with D. G. Natroshvili).
- 6. Dynamical problems of elasticity and thermoelasticity theory for piece-wise homogeneous bodies, *Thesis of Dissertation*, Tbilisi State University, 1984.
- 7. The existence theorems for the solutions of dynamical problems of the thermoelasticity theory for the piece-wise homogeneous isotropic bodies, *Proceed. of I. Vekua Inst. of Applied Math.*, v. 16, pp. 216-225, 1985.
- 8. Dynamical problems of elasticity theory of two-component mixtures, *Reports of Enlarged Sessions of the Seminar of I.Vekua Inst. of Applied Math.*, v. 2, No 2, pp. 99-102, 1986.
- 9. The fundamental matrix of the linearized equations of the theory of elastic mixtures, *Proceed. of I. Vekua Inst. of Applied Math.*, v. 23, pp. 133-148, 1988.
- 10. Potential methods in the problems of linear theory of elastic mixtures, *Teubner-Texte zur Mathematik*, Band 111, pp. 199-206, 1989 (with D. G. Natroshvili).
- 11. Representation of the general solution of the equation of static of linear theory of a two-component elastic mixtures, *Reports of Enlarged Sessions of the Seminar of I.Vekua Inst. of Applied Math.*, v. 4, No 2, pp. 155-158, 1989.
- 12. Solution of boundary value problems in the linear theory of a two-component elastic mixture, *Proceed. of I. Vekua Inst. of Applied Math.*, v. 39, pp. 218-226, 1990.
- 13. Fundamental solutions of equations of stable oscillation and pseudooscillation of a two-component elastic mixture, *Proceed. of I. Vekua Inst. of Applied Math.*, v. 39, pp. 227-240, 1990.
- 14. Solution of dynamical problems of linear theory of elastic mixture, *Reports of Enlarged Sessions of the Seminar of I. Vekua Inst. of Applied Math.*, v. 6, No 2, pp. 140-143, 1991.
- 15. The uniqueness of solutions of stable oscillation of linear theory of a two-component elastic mixture, *Bulletin Acad. Sci. of Georgia*, v. 145, No 1, pp. 51-54, 1992.
- Uniqueness theorems of the solutions of interior stable oscillation problems of the linear theory of elastic mixture, *Proceed. of I. Vekua Inst. of Applied Math.*, v. 46, pp. 179-190, 1992.
- 17. The uniqueness of the solution of exterior boundary-value problems of stable oscillation of the linear theory of elastic mixture, *Proceed. of I. Vekua Inst. of Applied Math.*, v. 46, pp. 191-202, 1992.

- Representation of the general solution of the equation of steady state oscillations of two-component elastic mixtures, *Prikladnaia Mechanika* (Eng. Tr.: *Inter. Applied Mech.*), v. 29, No 12, pp. 22-29, 1993.
- The asymptotic distribution of eigenvalues and eigenfunctions of the oscillation problems of the linear theory of elastic mixtures, *Reports of Enlarged Sessions of* the Seminar of I. Vekua Inst. of Applied Math., v. 8, No 2, pp. 151-154, 1993.
- 20. The fundamental solution of the equation of steady oscillations for a thermoelastic mixtures. *Prikladnaia Mechanika* (Eng. Tr.: *Inter. Applied Mech.*), v. 31, No 7, pp. 63-71 (558-566), 1995.
- 21. Asymptotic distribution of eigenfunctions and eigenvalues of the boundary value problems of linear theory of elastic mixtures, *Georgian Math. J.*, v. 3, No 2, pp. 177-200, 1996.
- 22. The fundamental solution of the oscillation equation of the thermoelasticity theory of mixture of two elastic solids, *J. Thermal Stresses*, v. 19, No 7, pp. 633-648, 1996.
- 23. Three-dimensional problems of mathematical theory of elastic mixtures, *Thesis of Dissertation*, Tbilisi State University, 1998.
- 24. On existence of eigenfrequencies in the theory of two-component elastic mixtures, *Quart. J. Mech. Appl. Math.*, v. 51, pl. 3, pp. 427-437, 1998.
- 25. Potential method in the linear theory of binary mixtures for thermoelastic solids, *J. Thermal Stresses*, v. 23, No 6, pp. 601-626, 2000 (with T. Burchuladze).
- Boundary value problems of the theory of thermoelasticity with microtemperatures, *PAMM-Proceedings in Applied Mathematics and Mechanics*, v. 3, Issue 1, pp. 188-189, 2003.
- 27. Steady oscillation problems in the theory of thermoelasticity with microtemperatures, *Proceedings of the 5th International Congress on Thermal Stresses and Related Topics*, Blacksburg, VA, v. 2, pp. TA 911-914, 2003.
- 28. Fundamental solutions of the equations of the theory of thermoelasticity with microtemperatures, *J. Thermal Stresses*, v. 27, No 2, pp. 151-170, 2004.
- 29. Fundamental solutions in the theory of micromorphic elastic solids with microtemperatures, *J. Thermal Stresses*, v. 27, No 4, pp. 345-366, 2004.
- 30. Fundamental solution of the system of equations of steady oscillations in the theory of fluid-saturated porous media, *Transport in Porous Media*, v. 56, No 1, pp. 39-50, 2004 (with R. de Boer).
- 31. Fundamental solution of the system of equations of steady oscillations in the theory of microstretch elastic solids, *Int. J. Engng. Sci.*, v. 42, No 17-18, pp. 1897-1910, 2004
- 32. Fundamental solution of the system of equations of steady oscillations in the theory of thermomicrostretch elastic solids, *Int. J. Engng. Sci.*, v. 43, No 5-6, pp. 417-431, 2005 (with S. De Cicco).
- 33. Fundamental solution in the theory of consolidation with double porosity, *Journal of the Mechanical Behavior of Materials*, v. 16, No 1-2, 123-130, 2005.
- 34. Steady oscillation problems in the theory of thermomicrostretch elastic solids, *Proceedings of the* 6*th International Congress on Thermal Stresses.* Vienna, Austria, May 26-29, 2005, Vol. 1, 189-192.
- 35. On the representations of solutions in the theory of fluid-saturated porous media, *Quart. J. Mech. Appl. Math.*, v. 58, No 4, pp. 551-562, 2005 (with R. de Boer).
- 36. Fundamental solution in the theory of micropolar thermoelasticity without energy dissipation, *J. Thermal Stresses*, v. 29, No 1, pp. 57-66, 2006 (with V. Tibullo and V. Zampoli).
- 37. Plane waves and vibrations in the elastic mixtures, *Proceedings "WASCOM 2005"* 13<sup>th</sup> Inter. Conference on Waves and Stability in Continuous Media, World Scientific, Singapore, pp. 524-529, 2006.
- 38. Boundary integral method in the theory of bone poroelasticity, *J. Biomechanics*, v. 39, Suppl. 1, p. S468, 2006.
- 39. On the representations of solutions in the theory of thermoelasticity with microtemperatures, *J. Thermal Stresses*, v. 29, No 9, pp. 849-864, 2006 (with A. Scalia).
- 40. Basic properties of the fundamental solution in the theory of micropolar thermoelasticity without energy dissipation, *Appl. Math., Informatics and Mech.* v.11, pp. 49-63, 2006 (with P. Giordano and V.Tibullo).

- 41. Fundamental solution in the theory of micropolar thermoelasticity for materials with voids, *J. Thermal Stresses*, v. 30, No 3, pp. 213-229, 2007 (with M. Ciarletta, A. Scalia).
- 42. Fundamental solution in the linear theory of thermoviscoelastic mixtures, *European J. Appl. Math.*, v. 18, No 3, pp. 323-335, 2007 (with G. lovane).
- 43. On the representations of general solution in the theory of micropolar thermoelasticity without energy dissipation, *Ukrainian Math. J.*, v. 59, No 10, pp. 1560-1568, 2007 (with V. Zampoli, P. Giordano).
- 44. Potential method in the theory of thermoelasticity of binary mixtures, *Proceedings of the* 7<sup>th</sup> *International Congress on Thermal Stresses*, 4-7 June, 2007, Taipei, Taiwan, pp. 273- 276.
- 45. Boundary value problems in the theory of binary mixtures, *PAMM-Proceedings in Applied Mathematics and Mechanics*, v. 7, Issue 1, pp. 4060061- 4060062, 2007.
- 46. Plane waves and vibrations in the thermoelastic mixture, *Proceedings "WASCOM 2007" 14<sup>th</sup> International Conference on Waves and Stability in Continuous Media*, World Scientific, Singapore, pp. 554-559, 2008.
- 47. Plane waves and eigenfrequencies in the linear theory of binary mixtures of thermoelastic solids, *J. Elasticity*, v. 92, pp. 195 207, 2008.
- 48. Boundary value problems of the theory of bone poroelasticity, *J. Biomechanics*, v. 41, Suppl. 1, p. S339, 2008.
- 49. Boundary value problems in the two-temperature theory of thermoelasticity of binary mixtures, In: Z. Kotulski, P. Kowalczyk, W. Sosnowski (Eds.), Selected Topics of Contemporary Solid Mechanics, Proceedings of the 36th Solids Mechanics International Conference, September 9-12, 2008, Gdansk (Poland), pp. 244-245, 2008.
- 50. Boundary value problems in the theory of binary mixtures of thermoelastic solids, *PAMM-Proceedings in Applied Mathematics and Mechanics*, vol. 8, Issue 1, pp. 10469-10470, 2008.
- 51. Plane waves and vibrations in the micropolar thermoelastic materials with voids, *European J. Mech., Al Solids, v.* 28, pp. 897-903, 2009 (with M. Ciarletta and L. Buonano).
- 52. Fundamental solution in the theory of viscoelastic mixtures, *Journal of Mechanics of Materials and Structures*, vol. 4, No 1, pp. 139 156, 2009 (with S. De Cicco).
- 53. Potential method in the linear theory of thermoelasticity with microtemperatures, *J. Thermal Stresses, v. 32, pp. 1024 1042, 2009* (with A. Scalia).
- 54. Boundary value problems in the theory of thermoelasticity of binary mixtures with different constituent temperatures, *Proceedings of the* 8<sup>th</sup> *International Congress on Thermal Stresses*, 1-4 June, 2009, Urbana, USA, v. II, pp. 475 478, 2009.
- 55. On the linear theory of thermoelasticity with microtemperatures, *Proceedings of the* 8<sup>th</sup> *International Congress on Thermal Stresses,* 1-4 June, 2009, Urbana, USA, v. II, pp. 465 468, 2009 (with A. Scalia).
- 56. Basic theorems in the equilibrium theory of thermoelasticity with microtemperatures, *J. Thermal Stresses*, vol. 33, 721-753, 2010 (with A. Scalia and R. Tracinà).
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#### Video lectures:

- 1. Integral equations I (10 lectures).
- 2. Potential method in mathematical physics (10 lectures).

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