

# **CURRICULUM VITAE**

#### NAME

Roman Koplatadze

# PERMANENT ADDRESS:

Mtacminda Str., 5, Tbilisi 0108 Georgia

# AFFILIATION:

I. Vekua Institute of Applied Mathematics of Iv, Javakhishvili Tbilisi State University,

Department of Mathematics of Tbilisi State University University St. 2, Tbilisi 0143, Georgia

E-mail: r\_koplatadze@yahoo.com

# PERSONAL DATA:

Date of Birth: 01.01.1942 Place of Birth: Village of Basileti, Georgia Nationality: Georgian

Marital Status: Married

#### PRESENT POSITION:

2006 - Department of Mathematics of Tbilisi State University, Professor

#### EDUCATION AND SCIENTIFIC DEGREE:

- 1961-1967 Student of Tbilisi State University, faculty of Mechanics and Mathematics
- 1967 Diploma in Mathematics (with honors), Tbilisi State University
- 1967-1969 Post-graduate student of Tbilisi State University

#### DEGREE:

Candidate of Sciences (Ph.D):1974 - Tbilisi State University

Doctor of Sciences: 1995 - A. Razmadze Mathematical Institute of Georgian Academy of Sciences

## LANGUAGES:

Georgian Russian English (satisfactory)

#### POSITIONS HELD AND ACADEMIC EXPERIENCE:

- 1970 1976 Junior Researcher of the Department of Ordinary Differential equations of I. Vekua Institute of Applied Mathematics of Tbilisi State University
- 1976 1983 Senior Researcher of the same department
- 1983 1990 Leading Researcher of the same department
- 1991 1995 Head of the same department
- 1996 2006 Leading Researcher of A. Razmadze Mathematical Institute of Georgian Academy of Sciences, Professor
- 2006 I. Vekua Institute of Applied Mathematics of Iv, Javakhishvili Tbilisi State University, Leading of the same department,

Department of Mathematics of Iv, Javakhishvili Tbilisi State University, Professor

## TEACHING:

 Special Courses ordinary differential equations, Faculty of Mechanics and Mathematics of Tbilisi State University

#### **RESEARCH INTERESTS:**

Ordinary differential equations (Qualitative theory of nonautonomous differential equations, Oscillation theory, Boundary value problems)

#### PRIZES AND AWARDS:

1996 - I. Vekua prize of the Georgian Academy of sciences

## FELLOWSHIPS AND GRANTS:

- 1997-1998 NATO Research Fellowship University of Ioannina,
- Research Grant of the Greek Ministry of Development in the framework of Bilateral S&T Cooperation between the Hellenic Republic and the Republic of Georgia University of Ioannina, Department of Mathematics, Ioannina, Greece,
- 1997-2005 Research Grants of the Georgian Academy of Sciences # 1.6.97 # 1.6.00 ; # 1.6.02 ; # 1.6.04
- 2010 Research Grants of the Georgian National Science Foundation. Grant No. GNSF/ST09-81-3-101.

#### SUPERVISION OF POST-GRADUATE STUDENTS:

- G. Giorgadze defended the Ph. D. in 1998 at Tbilisi State University
- N. Partsvania defended the Ph. D. in 1999 at A. Razmadze Mathematical Institute

# PARTICIPATION IN CONFERENCES AND OTHER SCIENTIFIC FORUMS:

- 1. Fourth All-Union Conference on the Qualitative Theory of Differential Equations (Ryazan, Russia, 1976) speaker.
- 2. Joint Sessions of the Petrovski Seminar and of the Moscow Mathematical Society (Moscow, Russia, 1986) speaker.
- 3. All-Union Symposium on Current Problems of Mathematical Physics dedicated to the 80th anniversary of Academician I. Vekua (Tbilisi, Georgia, 1987) speaker.
- 4. Seventh All-Union Conference on the Qualitative Theory of Differential Equations (Riga, Latvia, 1989) speaker.
- 5. Equadiff 8 Czechoslovak Conference on Differential Equations and Their Applications (Bratislava, Slovakia, 1993) speaker.
- 6. First Congress of Mathematicians of Georgia (Tbilisi, Georgia, 1993) speaker.
- 7. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 1996) speaker.
- 8. DEMPh-97 International Symposium on Differential Equations and Mathematical Physics dedicated to the 90th birthday anniversary of Academician I. Vekua (Tbilisi, Georgia, 1997) - speaker.
- 9. Equadiff 9 Czechoslovak Conference on Differential Equations and Their Applications (Brno, Czech Republic, 1997) invited lecturer.
- 10. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 1998) speaker.
- 11. FDE 1 The 1-st International Conference on Functional Differential Equations (Kedumim-Ariel, Israel, 1998) speaker.
- 12. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 2000) speaker.
- 13. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 2002) speaker.
- 14. International Symposium in Differential Equations and Mathematical Physics (Tbilisi, Georgia, 2003) speaker.
- 15. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 2004) speaker.
- 16. Fourth International Conference on Differential and Functional Differential Equations (Moscow, 2005) speaker.
- 17. International Workshop "Function Spaces, Integral Transforms and Their Applications" (Tbilisi, 2005) speaker.
- 18. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 2006) speaker.
- 19. Third International Conference of Applied Mathematics (Plovdiv, Bulgaria, 2006) speaker.
- 20. Symposium on Functional Differential Equations (Judea and Samaria, Israel, 2006) invite-lecture.
- 21. Symposium on "Contemporary Mathematics and its Application" in honor of Professor Revaz Gamkrelidze (Batumi State Univarsity, Batumi, Georgia 2007) invite-lecture.
- 22. Forth International Conference of Applied Mathematics and Computing (Plovdiv, Bulgaria, 2007) invite-lecture.

- 23. Sixth International ISAAC Congress (Middle East Technical University, Ankara, 2007) invite-lecture.
- 24. ISAAC Conference on Complex Analysis, Partial Differential Equations, and Mechanics of Continua Dedicated to the Centenary of Ilia Vekua, (Tbilisi, Georgia 2007) - speaker.
- 25. Workshop Variable Exponent Analysis and Belated Topics (Tbilisi, Georgia, 2008) speaker.
- 26. The Fifth World Congress of Nonlinear Analysts (WCNA-2008 Orlando, Florida, USA, 2008) invite-lecture.
- 27. Symposium on Functional Differential Equations (Ariel, Israel, 2008) invitelecture.
- 28. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 2008) speaker.
- 29. ISAAC Conference on Complex Analysis, Partial Differential Equations, and Mechanics of Continua. Dedicated to Centenary of I. Vekua. (Tbilisi, Georgia, 2008) speaker.
- 30. International Conference on Modern Problems in Applied Mathematics. Dedicated to the 90-th anniversary of Iv. Javakhishvili Tbilisi State University (TSU) and 40-th anniversary of I. Vekua Institute of Applied Mathematics (VIAM). (Tbilisi, 2008) On a singular boundary value problem for the integro-differential equation – speaker.
- International Conference on Modern Problems in Applied Mathematics. Dedicated to the 90-th anniversary of Iv. Javakhishvili Tbilisi State University (TSU) and 40-th anniversary of I. Vekua Institute of Applied Mathematics (VIAM). (Tbilisi, Georgia, 2008) – (with G. Kvinikadze) speaker.
- 32. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 2009) speaker.
- 33. Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics (Tbilisi, Georgia, 2009) (with S. Bitsadze) speaker.
- 34. The 6th International Conference: Dynamical Systems and Applications-2010 (Antalya–Turkey, 2010) speaker.
- 35. Functional Differential Equations and Applications (Ariel, Israel, 2010) invite-lecture.

# List of Main Publications of Prof. Roman Koplatadze

- 1. On asymptotic behaviour of solutions of a system of two linear differential equations. (Russian) *Trudy Tbilis. Univ. Ser. Mat. Mekh.* **129** (1968), 179-194.
- 2. On oscillatory solutions of the second order differential equations with a delayed argument. (Russian) Theses of reports of the III-rd Scientific Session of the Institute of Applied Mathematics of Tbilisi State University, 1971, 5.
- 3. A note on oscillation of solutions of second order differential equations with a delayed argument. (Russian) *Mat. Časopis Sloven. Akad. Vied* **22** (1972), No. 3, 253-261.
- 4. \* On oscillatory solutions of second order delay differential inequalities. J. Math. Anal. Appl. 42 (1973), No. 1, 148-157.
- 5. The oscillating solutions of nonlinear first order differential equations with retarded argument. (Russian) *Soobshch. Akad. Nauk Gruzin. SSR*, **70** (1973), No 1, 17-20.
- 6. \* The existence of oscillatory solutions of second order nonlinear differential equations with retarded argument. (Russian) *Dokl. Akad. Nauk SSSR* **210** (1973), No. 2, 260-262.
- 7. \* A note on the conjugacy of the solutions of higher order differential inequalities and equations with retarded argument. (Russian) *Differentsial'nye Uravneniya* **10** (1974), No. 8, 1400-1405.
- 8. The oscillatory nature of the solutions of differential inequalities and second order differential equations with retarded argument. (Russian) *Math. Balkanica* **29** (1975), No. 5, 163-172.
- 9. The oscillation of the solutions of a certain *n*-th order differential inequality with retarded argument (Russian) *Ukrain. Mat. Zh.* **28** (1976), No. 2, 233-237.
- 10. \*Some properties of the solutions of nonlinear differential inequalities and equations with retarded argument. (Russian) *Differentsial'nye Uravneniya* **12** (1976), No. 11, 1971-1984.
- 11. On oscillatory properties of differential equations with a deviating argument. (Russian) *Izdat. Tbilis. Univ., Tbilisi,* 1977, 115 pp. (with T.A. Chanturia).
- 12. Bounded solutions of nonlinear second-order differential equations with retarded argument. (Russian) *Asymptotic behavior of solutions of functional-differential equations (Russian)*, 78-82, 155, *Akad. Nauk Ukrain. SSR, Inst. Mat., Kiev*, 1978.
- 13. Oscillatory solutions of differential inequalities and higher order equations with retarded argument. (Russian) *Soobshch. Akad. Nauk Gruzin. SSR* **89** (1978), No. 1, 37-39.
- 14. On oscillatory solutions of the linear second order differential equation with a delayed argument. (Russian) Theses of reports of the V-th All-Union Conference on Qualitative Theory of Differential Equations. Kishinev, 1979, 95.
- 15. Monotone solutions of first-order nonlinear differential equations with retarded argument. (Russian) *Tbiliss. Gos. Univ. Inst. Prikl. Mat. Trudy* **8** (1980), 24-28.
- 16. \* On asymptotic behaviour of solutions of second order linear differential equations with a delayed argument. (Russian) *Differentsial'nye Uravneniya* **16** (1980), No. 11, 1963-1966.
- 17. \* Oscillating and monotone solutions of first-order differential equations with deviating argument. (Russian) *Differentsial'nye Uravneniya* **18** (1982), No. 8, 1463-1465 (with T.A. Chanturia).
- 18. Zeros of solutions of first-order differential equations with retarded argument. (Russian) *Tbiliss. Gos. Univ. Inst. Prikl. Mat. Trudy* **14** (1983), 128-134.
- 19. On oscillatory solutions of the second order differential inequality with a delayed argument. (Russian) Theses of reports of the X- th Republican Scientific-Methodic Conference of Mathematicians of Higher Educational Institutions of the Georgian SSR, 1983, 92.
- 20. Integral conditions for the oscillation of solutions of second-order differential equations with retarded argument. (Russian) *Soobshch. Akad. Nauk Gruzin. SSR* **118** (1985), No. 2, 245-247.

- 21. On the question of the oscillation of solutions of higher-order differential equations with delay. (Russian) *Reports of the extended sessions of a seminar of the I. N. Vekua Institute of Applied Mathematics, Vol. I, No. 3 (Russian) (Tbilisi, 1985), 65-68, 168, Tbilis. Gos. Univ., Tbilisi, 1985.*
- 22. Conditions for the oscillation of solutions of *n*-th order differential equations with retarded argument. (Russian) *Soobshch. Akad. Nauk Gruzin. SSR* **124** (1986), No. 1, 33-35.
- 23. Criteria for the oscillation of solutions of differential inequalities and second-order equations with retarded argument. (Russian) *Tbiliss. Gos. Univ. Inst. Prikl. Mat. Trudy* **17** (1986), 104-120.
- 24. \*On oscillatory properties of n-th order differential equations with a delayed argument. (Russian) *Uspekhi Mat. Nauk* **41** (1986), No. 4, 1399.
- 25. On oscillatory solutions of essentially nonlinear high order differential equations with delay. (Russian) *Theses of reports of the* VI- *th All-Union Conference on Qualitative Theory of Differential Equations. Irkutsk*, 1986, 96-97.
- 26. Integral criteria of oscillation of solutions of n-th order differential inequalities and equations with a delayed argument. (Russian) *Tbiliss. Gos. Univ. Inst. Prikl. Mat. Trudy* **22** (1987), 110-134.
- 27. On the oscillation of solutions of differential equations with delay. (Russian) *Theses of* reports of the IIIrd Ural Regional Conference in Functional Differential Equations and Their Application, 1988.
- 28. On asymptotic behaviour of solutions of n-th order differential equations with a delay. (Russian) *Reports of Enlarged Sessions of the Seminar of I.N. Vekua Inst. Appl. Math.* **3** (1988), No. 3, 65-69.
- 29. \* Differential equations with deviating argument that have the properties *A* and *B*. (Russian) *Differentsial'nye Uravneniya* **25** (1989), No. 11, 1897-1909; English transl.: *Differential Equations* **25** (1989), No. 11, 1332-1342 (1990).
- 30. \*On oscillation of solutions of n-th order differential equations with a deviating argument. (Russian) *Differentsial'nye Uravneniya* **25** (1989), No. 12, 2184.
- 31. Monotonically increasing and oscillating solutions of differential equations with deviating argument. (Russian) *Soobshch. Akad. Nauk Gruzin. SSR* **137** (1990), No. 1, 41-44.
- 32. On Kneser solutions of n-th order differential equations with a delayed argument. (Russian) *Reports of Enlarged Sessions of the Seminar of I. Vekua Inst. Appl. Math.* **5** (1990), No. 3, 89-93.
- 33. Specific properties of solutions of differential equations with deviating argument. (Russian) *Ukrain. Mat. Zh.* **43** (1991), No. 1, 60-67; English transl.: *Ukrainian Math. J.* **43** (1991), No. 1, 48-54.
- 34. Monotone and oscillating solutions of *n*th-order differential equations with retarded argument. (Russian) *Math. Bohem.* **116** (1991), No. 3, 296-308.
- 35. On monotone and oscillatory solutions of high order retarded ordinary differential equations. *Reports of Enlarged Session of the Seminar of I. Vekua Inst. Appl. Math.* **7** (1992), No. 3, 57-59.
- 36. On oscillatory and Kneser-type solutions of the high order delay differential equations. *Bull. Acad. Sci. Georgia* **148** (1993), No. 2, 169-171 (with D. Izyumova).
- 37. On the oscillation of solutions of first order delay differential inequalities and equations. *Georgian Math. J.* **1** (1994), No. 6, 675-685 (with G.Kvinikadze).
- 38. On oscillatory properties of solutions of functional differential equations. *Mem. Differential Equations Math. Phys.* **3** (1994), 3-179.
- 39. On asymptotic behaviour of solutions of functional-differential equations. Equadiff 8 (Bratislava, 1993). *Tatra Mt. Math. Publ.* 4 (1994), 143-146.

- 40. On oscillatory properties of the solutions of Emden-Fowler type functional differential equations. *Fifth International Colloquium on Differential Equations, Plovdiv, Bulgaria,* 1994, 110.
- 41. On asymptotic behaviour of solutions of linear functional differential equations. *Mem. Differential Equations Math. Phys.* 6 (1995), 116-118.
- 42. Criteria for oscillation of solutions of two-dimensional differential systems with deviating arguments, *Mem. Differential Equations Math. Phys.* 6 (1995), 119-120. (Jointly with N.Partsvania)
- 43. \* Oscillation properties of solutions of functional-differential equations. (Russian) *Dokl. Akad. Nauk* **340** (1995), No. 4, 473-475.
- 44. \* On oscillatory properties of solutions nonlinear of functional-differential equations. (Russian) *Differentsial'nye Uravnenia* **31** (1995), No. 9, 1594-1595.
- 45. On oscillation of second order linear difference equations with deviated arguments. *Mem. Differential Equations Math. Phys.* **10** (1997), 138-139 (jointly with G. Kvinikadze).
- 46. \* An analogue of Nehari's theorem for high order deviating differential equations. (Russian) *Differentsial'nye Uravneniya* **33** (1997), No. 11, 1572-1573.
- 47. \* Oscillation properties of the solutions of the second order differential equations with a delayed argument. (Russian) *Differentsial'nye Uravneni*ya **33** (1997), No. 10, 1312-1320; English transl.: *Differential Equations* **33** (1997), No. 10, 1318-1326 (1998) (jointly with N. Partsvania).
- 48. On the oscillation of solutions of two-dimensional linear differential systems with deviated arguments. *Mem. Differential Equations Math. Phys.* **13** (1998), 148-149 (jointly with N. Partsvania).
- 49. Comparison theorems for deviated differential equations with Property A. Mem. Differential Equations Math. Phys. 15 (1998), 141-144.
- 50. \* Comparison theorems for ordinary differential equations with high order. *Differentsial'nye Uravneni*ya. **34** (1998), No. 11, 1572-1573.
- 51. Oscillatory behaviour of solutions of two- dimensional differential systems with deviated arguments. *Georgian Math. J.* **6**(1999), No. 4, 335-346 (jointly with N. Partsvania).
- 52. Comparison theorems for deviated differential equations with property *B*. Mem. Differential Equations Math. Phys. **16**(1999), 143-147.
- 53. Properties **A** and **B** of *n*th order linear differential equations with deviated argument. *Georgian Math. J.* **6**(1999), No. 6, 553-566 (jointly with G. Kvinikadze and I. P. Stavroulakis).
- 54. Oscillation of second order linear delay differential equations. *Funct. Differ. Equ.* **7**(2000), No. 1–2, 121–145 (jointly with G. Kvinikadze and I. P. Stavroulakis).
- 55. \*On a problem of I. T. Kiguradze and T. A. Chanturia. *Differentsial'nye Uravneni*ya. **35** (1999), No. 11, 1571-1572.
- 56. *n*th order neutral differential equations. *Georgian Math. J.* **7**(2000), No. 2, 287-298 (jointly with M. K. Grammatikopoulos).
- 57. Oscillatory properties of solutions of two-dimensional linear differential systems with deviated arguments. *Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics* **15** (2000), No. 1-3, 68-70 (jointly with N. Partsvania).
- 58. Comparison theorems for differential equations with several deviations. The case of property *A. Mem. Differential Equations Math. Phys.* **24**(2001), 115-124.
- 59. Property A of high order linear differential equations with several deviations. *Mem. Differential Equations Math. Phys.* 24 (2001), 125-135.
- 60. Oscillation of linear difference equations with deviating arguments. *Comp. Math. Appl.* **42** (2001), 477-486.
- 61. Comparison theorems for differential equations with several deviations. The case of property *B. Mem. Differential Equations Math. Phys.* **26** (2002), 139-148.

- 62. Oscillation of second order linear difference equations with deviating arguments. *Adv. Math. Sci. Appl.* **12** (2002), No. 1, 217-226 (jointly with G. Kvinikadze and I. P. Stavroulakis).
- 63. Comparison theorems for deviated difference equations. *Rep. Enlarges Sess. Semin. I. Vekua Inst. Appl. Math.* **17** (2002), No. 2, 43-46.
- 64. On asymptotic behavior of solutions of higher order linear differential equations with deviated arguments. *Rep. Enlarges Sess. Semin. I. Vekua Inst. Appl. Math.* **17** (2002), No. 2, 39-42 (jointly with G. Kvinikadze).
- 65. \* Linear functional differential equations with Property A. J. Math. Anal. Appl. **284** (2003), No. 1, 294-314 (jointly with M. K. Grammatikopulos and G. Kvinikadze).
- 66. On the oscillation of solutions of first order differential equations with retarded arguments. *Georgian Math. J.* **10** (2003), No. 1, 63-76 (jointly with M. K. Grammatikopoulos and I. P. Stavroulakis).
- 67. Asymptotic behaviour of solutions of two-dimensional linear differential systems with deviating arguments. *Arch. Math. (Brno)* **39** (2003), No. 3, 213-232 (jointly with N. Partsvania and I. P. Stavroulakis).
- 68. On Higher Order Functional Differential Equations with Property A. Georgian Math. J. 11 (2004), No. 2, 307-336.
- 69. Generalized ordinary differential equations of Emden-Fowler type with properties *A* and *B*. *Proc. A. Razmadze Math. Inst.* **136** (2004), 145-148.
- 70. \* Nonlinear functional differential equations with Properties *A* and *B*. *J. Math. Anal. Appl.* **306** (2005), 136-160 (jointly with J. Graef and G. Kvinikadze).
- 71. On oscillatory properties of generalized ordinary differential equations of Emden-Fowler type. *Mem. Differential Equations Math. Phys.* **34** (2005), 153-156 (jointly with G. Kvinikadze).
- 72. \* Quasi-Linear Functional Differential Equations with Property A. J. Math. Anal. Appl. 330 (2007), 483-510.
- 73. \* On the Kneser type Solutions for Two-Dimensional Linear Differential Systems with Deviating Arguments. J. Inequal. Appl. 2007, 22 pp. (with A. Domoshnitsky).
- 74. On Oscillatory Properties of Solutions of Generalized Emden-Fowler Type Differential Equations. *Proc. A. Razmadze Math. Inst.* **145** (2007), 117–121.
- 75. \* On an approach to the investigation of the asymptotic properties of solution of ordinary differential equations with delay (with G. Berikelashvili and O. Jokhadze). *Differ. Uravn.* 44 (2008), no. 1, 19--38, 141.
- 76. \* Oscillation Criteria of First Order Linear Difference Equation with Delay Argument (with G. E. Chatzarakis and I. P. Stavroulakis). *J. Nonlinear Analysis* **68** (2008), 994-1005.
- 77. \* Optimal Oscillation Criteria for First Order Difference Equation with Delay Argument (with G. E. Chatzarakis and I. P. Stavroulakis). *J. Pacific Journal Mathematics*. **235** (2008), no. 1, 15-33.
- 78. On asymptotic behaviors of solutions of Emden-Fowler advanced differential equation. *Math. Modeling and Computer Simulation of Matherial Technologies. Proceedings of the 5-th International Conference Ariel*, **2** (2008), 731-735.
- 79. Existence of oscillating solution for the integro-differential equation. *Proc. A. Razmadze Math. Inst.* **147**(2008), 119-125 (with A. Domoshnitsky).
- 80. Oscillation criteria of solutions of second order of linear difference equations. *Proc. A. Razmadze Math. Inst.* **147** (2008), 134-138 (with G. Kvinikadze).
- 81. \* Necessary conditions for existence of positive solutions of second order linear difference equations and sufficient conditions for oscillation of solutions. J. Nelīnīinī. Koliv. 12 (2009), no. 2, 180--194. (with G. Kvinikadze).
- 82. Oscillation criteria for higher order "almost linear" functional differential equation. *Funct. Differ. Equ.* **16** (2009), no. 3, 387--434. (with E. Litsyn).

- 83. \* On Asymptotic Behavior of Solutions of Almost Linear and Essentially Nonlinear Differential Equations. *Nonlinear Anal. Theory, Methods and Appl.* 71 (2009),e396-e400.
- 84. On oscillatory properties of solutions of third-dimensional linear differential systems with deviating arguments. *Proc. A. Razmadze Math. Inst.* **149**(2009), 126-129 (with G. Giorgadze).
- 85. Essentially nonlinear generalized differential equations of Emden-Fowler type with delay argument. *Reports of Seminar of I. Vekua Institute of Applied Mathematics* **35** (2009).
- 86. Necessary conditions for existence of positive solutions of nonlinear difference equations. *Reports of Seminar of I. Vekua Institute of Applied Mathematics. Reports* **35** (2009), 68-70 (with I. Nanobashvili).
- 87. On asymptotic behavior of solutions of third-dimensional linear differential systems with deviating arguments. *Reports of Seminar of I. Vekua Institute of Applied Mathematics* **35**(2009), 60-63 (with G. Giorgadze).
- 88. \* On asymptotic behavior of solutions of n-th order Emden-Fowler differential equations with advanced argument. *Czeh. Math. J.* **60** (135) (2010), 817-633.
- 89. \* On a boundary value problem for integro-differential equations on the halfline.. *Nonlinear Anal.* **72** (2010), no. 2, 836—846 (with A. Domoshnitsky).
- 90. First Order Linear Differential Equations With Several Delays *Proc. A. Razmadze Math. Inst.*154 (2010), 151-154 (with G. Kvinikadze and A. Arsenashvili).
- 91. \* Necessary Conditions for Existence of Positive Solutions of Second Order Nonlinear Difference Equations and Sufficient Conditions for Oscillation of Solutions. *Nonlinear Oscillation*. (submittion, with S. Pinelas).
- 92. Nonlinear Generalized Equations of Emden-Fowler Type with Advanced Aegument. *Math. Modeling and Computer Simulation of Matherial Technologies. Proceedings of the 6-th International Conference Ariel*, (2010) (with G. Kvinikadze).
- 93. Oscillatory Properties of Solutions of Generalized Emden-Fowler Equations with Advanced Argument. Delays *Proc. A. Razmadze Math. Inst.* (accepted, with G. Kvinikadze and G. Giorgadze).
- 94. On Asymptotic Behavior of Solutions of Generalized Emden-Fowler Equations with Advanced Argument. *Reports of Seminar of I. Vekua Institute of Applied Mathematics* (accepted, with G. Kvinikadze and G. Giorgadze).