

# CURRICULUM VITAE

*of*

## Teimuraz Davitashvili

Last name: Davitashvili

First name: Teimurazi

Date of birth: February 16, 1949

Place of birth: Tbilisi, Republic of Georgia

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### EDUCATION

Graduated from the Tbilisi State University for Mathematics and Mechanics, 1972, Diploma in Mechanics(Hydro-Aero Dynamics).

1982-1984 Post-graduate, Tbilisi State University

### ACADEMIC DEGREES

Ph.D. (Candidate of Sci. Physics and Mathematics) in Geophysics. Tbilisi State University, 1985. Thesis: "Numerical Modeling of Atmospheric Processes Dynamics for Limited Regions".

Academic rank of Senior Scientific- research Worker in Computational Mathematics. Moscow, 1991.

Dr. Hab. (Doctor of Sci. Physics and Mathematics) in Physics of Aerosphere and Hydrosphere. Institute of Geophysics Georgian Academy of Sciences. Thesis: "Numerical Modeling of Some Problems of Atmospheric Physics for Mountain Regions".

Educational and Scientific Degree of Professor (Full Professor) in Geophysics. Council of Professors of Iv. Javakhishvili Tbilisi State University, 2001.

Languages spoken: Georgian (Native), Russian, English.

### EMPLOYMENT

1972-1974. Researcher, Iv. Javakhishvili Tbilisi State University

1974-1991. Researcher, I.Vekua Institute of Applied Mathematics of Iv. Javakhishvili Tbilisi State University

1991-1998. Senior Scientific- Researcher, I.Vekua Institute of Applied Mathematics of Iv. Javakhishvili Tbilisi State University

1998- 2007. Head of Laboratory of Mathematical Modeling of Hydro-meteorological Processes in I.Vekua Institute of Applied Mathematics of Iv. Javakhishvili Tbilisi State University

2005-2007. Head of Department “Numerical Analysis” at I.Vekua Institute of Applied Mathematics of Iv. Javakhishvili Tbilisi State University

1991-1997. Docent (Associated Professor) at Iv. Javakhishvili Tbilisi State University

1997- 2006 Professor at Iv. Javakhishvili Tbilisi State University

2006-present. Head of Laboratory “Mathematical Modeling and Numerical Mathematics” Iv. Javakhishvili Tbilisi State University

#### FIELD OF RESEARCH

Main activities: Mathematical Modeling of Air, Soil and Water Pollution.

Other fields: Weather prediction, climate change modeling, computational fluid dynamics, numerical analysis, mathematical modeling boundary and middle atmosphere.

#### GRANTS, AWARDS, AND SCIENTIFIC PROJECTS

Project Manajer of the Grant of Georgian National Science Foundation (Project GNSF/ST09-614-5-210),” Assessment of risk factors of emergency cases at oil and gas pipelines and possible pollution of environment by means of mathematical modelling.” 2010-2011

Georgian Team Leader in Meteorology of the Grant of European Commission’s 7-th Framework Programme: SEE-GRID-SCI, No 211338 , 2008-2009

Participant of the Grant of European Commission’s 7-th Framework Programme “EXTEND” 2008-2010. No 221137

Project Leader of the Grant of Scientific and Tecnology Department of Georgia in the project “Mathematical Modeling of Ecological Regime of Georgian Territory”, 1997 and 1998

Project Leader of the Grant of Scientific and Tecnology Department of Georgia in the project “Mathematical Modeling of Georgian Transport Corridor Pollution For risk assessment” 2001.

Project Leader of the Grant No. 1.01.81 of Education and Scientific Ministry of Georgia in the project “Non-ordinary Hydro-meteorological Processes and Environmental Pollution Mathematical and Numerical Modeling ” 2005.

**Grant of NATO Advanced Research Workshop ( NATO, ARW) , Grant No. 981578,** on “Air, Water and Soil Quality Modelling for Risk and Impact Assessment” (Co-Directors of NATO ARW, Prof. T.Davitashvili, Prof. A.Ebel ), 2005.

**Supervisor of the Grants of World Federation of Scientists (WFS):**

- **WFS**, “Exhaust Gases Dispersion in Tbilisi Street Canyons” (2000-2001)
- **WFS**, “Radioactive Products Fall-out on Georgian Territory in Case of Emergency at Armenian Nuclear Power Station” (2000-2001)
- **WFS**, “Study Of The Environmental Pollution Of The Territory Of Georgia In Case Of Oil And Gas Pipelines Damage” (2002-2003)
- **WFS** “Some Problems of the Environmental Pollution With Respect to Anthropogenic Impact (Due to Local Wars)” (2003-2004)
- **WFS**, “Study the Present Statement of the Surface Water and Possible Pollution Along the Georgian Section of Transport Corridor Europe – Caucasus –Asia” (2005-2006)
- **WFS** “Investigation of the Black Sea Coast Contemporary Condition and Risk Factors for the Georgian Territory” (2005-2006)

#### PROFESIONAL MEMBERSHIP

Member of the Georgian Mathematical Union  
 Member of the Georgian Geophysical Union

#### CONFERENCES

1. UNESCO Venice Office, Georgian Academy of Sciences Tbilisi State university ISPM&School &Workshop on “Mathematical and Computers Simultionin Ecology, October 16-21, 2000, Tbilisi, Georgia (T.Davitashvili coordinator, key speaker).
2. UNESCO , ISPM School& Workshop “Scientific background and practical tools for ecological expertis September 24-29, 2001, Tbilisi, Georgia (T.Davitashvili coordinator, key speaker)
3. UNESCO, GAS, TSU. ISPM School & Workshop on “Mathematical Modelling and Menegment of Environment Changes in Transitional Economics” 16-21, September 2002, Tbilisi, Georgia (T.Davitashvili coordinator, key speaker).
4. UNESCO, ISPM Workshop and School on “Mathematical Modelling and Monitoring of Environmental Pollution and the Effectes” 2003, Baku, Azerbaijan (T.Davitashvili coordinator, key speaker)..
5. 12<sup>th</sup> NATO Modelling and Simulation Group –022 9-10 October 2003, Antalya, Turkey
6. Sixth ISTC Scientific Advisory Committee Seminar on “ Seience and Computing”.15-17 September. 2003. Moscow. Russia.

7. NATO Symposium on “Modelling and Simulation to Address NATO’s New and Existing Military Requirements” MSG- 028, 7-8 October 2004, Koblenz, Germany
8. Enlarged Sessions of the Seminar of I.Vekua Institute of Applied Mathematics. 1991,1993,1995,1997,1999,2003-2010 Tbilisi Georgia (from 1991-to 2002 T.Davitashvili speaker and from 2003-to 2010 T.Davitashvili, speaker and scientific secretary of section “Mathematical modelling and numerical mathematics”).
9. Georgian Republic conference of high schools physicists. 1976,1979,1981,1982,1984, 1986, 1987, 1989, TSU Tbilisi, Georgia
10. All Union Conference on “Active influence on Hydrometeorological Processes” 1986, Kiev, Ukraina.
11. All Union Conference on “Interdependence Between Regional and Global Processes in Atmosphere and Hydrosphere “1988 Tbilisi Georgia (T.Davitashvili key speaker).
12. All Union school-seminar on Analysis of Hydrometeorological information – 1981. Tashkenti, Uszbekistan.
13. Republic Scientific and Technical Conference on Meteorology Problems 1990 Tbilisi Georgia (T.Davitashvili key speaker).
14. Georgian Mathematical Congress 1994,1998,2005 Tbilisi, Georgia.
15. International Workshop on “Limited- Area and Variable Resolution Models 1995 Beijing China.
- 16.** Nato Advanced Research Workshop on Air Water Soil Quality Modeling for Risk and Impact Assessment -Tabachmela 16-20 September, 2005 (T.Davitashvili key speaker and co-director of Nato Advanced Research Workshop)
17. INTAS South Caucasus Workshop. Tbilisi, Georgia, April, 2006
18. Fifth International Conference on Computer Simulation in Risk Analyses and Hazard Mitigation, Risk Analysis, 2006, June, Malta.
19. European Geophysical Society (EGS), XXVIII General Assembly, Nice, France, 2004.
20. International Symposium on Drylands Ecology and Human Security (ISDEHS)-2006, Dubai, UAE, 2006.
21. International ISAAC CONFERENCE on “Complex Analysis, Partial Differential Equations, and Mechanics of Continuity” Dedicated to the Centenary of Ilia Vekua 22-28 April 2007, Tbilisi, Georgia.
22. NATO ARW on “Natural Disasters and Water Security” Yerevan, 18-23 October 2007.
23. NATO ARW on Simulations and Assessment of Chemical Processes in a Multiphase Environment-Ukraine, Alushta 1-5 October 2007.
24. NATO advanced training course on Modelling of the transport and transformation of pollutants in the atmosphere 1 – 10 August 2007, Sofia, Bulgaria.
25. The 8th Annual Meeting of the European Meteorological Society (EMS) and the 7th European Conference on Applied Climatology (ECAC), 29 September – 3 October 2008. The Netherlands, Amsterdam,

26. 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) of TSU, September, 26-28 and October, 7-9, 2008 , Tbilisi, Georgia.
27. International Conference on “International Year of the Planet Earth- Climate, Natural resources, Natural Disasters in the South Caucasus” 2008, Tbilisi, Georgia..
28. International symposium GEO Tunis 2008 on “Natural resource management and study of the impact of climate change with geographic information systems, science and space technologies" 2008, 26- 30 Nov. Tunisia, Tunis.
29. International Conference on FINITE DIFFERENCES- FINITE ELEMENTS- FINITEVOLUMES-BOUNDARY ELEMENTS (F and B'09), Tbilisi, Georgia, June 26-28, 2009
30. EXTEND Conference on “Fostering scientific and research co-operation between the Eastern Europe and the South Caucasus countries and the EU”,Chisinau, Moldova, 19 June, 2009
31. May Sessions of Georgia Institute of Hydrometeorology (in 2002, 2007-2010)
32. Georgian Mathematician V conference, Batumi-Kutaisi 9-12 October, 2009
33. Georgian-Armenian Meteo VO Groups Joint Meeting, Tbilisi, 13-15 July, 2009
34. International TICMI Advanced Courses on Boundary Value Problems for Partial Differential Equations, 23-24 June, 2010, Tbilisi, Georgia
35. First International Conference of Georgian Mathematical Union, Batumi, 12-19, September, 2010
36. First Annual Conference of Georgian Mechanics Union, Tbilisi, 20-22, December, 2010
37. SCSWT International conference, 28-30 October, 2010, Tbilisi, Georgia
38. The International Scientific Conference Devoted to the 80<sup>th</sup> anniversary of Academician I.V.Prangishvili “Information and Computer Technologies, Modeling Control” 1-4, Nov.,2010, Tbilisi, Georgia
39. NATO Advanced Research Workshop (ARW) entitled “Effect of Climate Change on Water Supplies-Issues of National and Global Security” 01-04 September 2010 Çeşme, İzmir, Turkey
40. WSEAS International Conference on ENVIRONMENT, ECOSYSTEMS and DEVELOPMENT (EED'10), Greece, December 29-31, 2010 (T.Davitashvili key speaker).

#### LIST OF PUBLICATIONS

1. Khvedelidze Z., Davitashvili T.: Green Function analysis for baroclinic atmosphere with account of Coriolis force and orography. Proceeding of Tbilisi State University No.188. 1977. (Russian)
2. Khvedelidze Z., Davitashvili T.: Effect of the changeability of the Coriolis' force and Geopotential variation in availability of mountains. Meteorology and hydrology No. 3. 1978. pp. 36-40. (Russian)
3. Davitashvili T., Khvedelidze: Toward a quantitative model of a short-term prognosis of Geopotential barotropic atmosphere. Bulletin of the Academy of Sciences of the Georgian SSR, 90, No. 3. 1978. pp. 581-584. (Russian).
4. Bekauri I., Getcadze Z., Davitashvili T., Khvedelidze Z. “Investigation of Sollution Baroclinic Atmosphere Equations Taken Into Consideration Beta Effect and Influence of Orography” . Proceeding of Tbilisi State University No.196. 1978. pp. 38-46, (Russian).

5. Davitashvili T., Janelidze P.: On the prediction of short-term Geopotential, using complete equations of hydrodynamics with account of orography. Bulletin of the Academy of Sciences of the Georgian SSR, 96, No. 1, 1979. (Russian)
6. Khvedelidze Z., Davitashvili T.: A Simplified method of vertical velocities calculation at different atmospheric levels with account of orography influence. Proceeding of Tbilisi State University. Physics. V. 216. 1980. pp. 39-47. (Russian)
7. Davitashvili T. "On Numerical Prediction Meteorological Fields by Nested Greed Method With Taken Into Consideration Compose Orography" Proceedings of Republic Conference on " Young Scientific Workers and Specialists of Georgia", Tbilisi, 1981, pp 30-37, (Russian).
8. Davitashvili T., Kveselava M., Tikishvili Ts., Khvedelidze Z. "Telescoping Numerical Prediction of Geopotential for Caucasus region" Proceedings of All-Union Workshop on "Analysis of Hydrometeorological Data and Wether Forecast" Taskent, Uzbekistan 1981, 52p. (Russian).
9. Davitashvili T. "Local forecasting of Geopotential on the Fine Grid" Proceedings of Republic XIII Conference of HES of GSSR. Publisher TSU., 1982, pp.136-139. (Russian).
10. Davitashvili T.: Numerical prediction of the Geopotential for the bounded area with account of orography influence. Proceedings of I. Vekua Institute of Applied Mathematics (VIAM). No. 13 1983, pp. 308-321. (Russian).
11. Geladze G., Davitashvili T.: A multiple regression scheme for points in prognostic problems. Proceedings of Tbilisi State University, No. 242. 1983. pp. 35-48. (Russian).
12. Davitashvili T., Khvedelidze Z. "Short-term Numerical Forecasting of Geopotential of Barotropic Atmosphere for Restricted Domain With Account of orography" Proceedings of Republic Scientific-technical Conference of Youth on " Scientific Problems of The Earth", Tbilisi, Publisher "Nauka", 1983, 212 p., (Russian).
13. Davitashvili T.: Numerical prediction model of the midlevel Geopotential with account of the Caucasus orography influence. Proceedings of VIAM. No.15. 1985, pp. 75-93. (Russian)
14. Davitashvili T.: The use of nested grid method in a numerical prediction of the mid-level geopotential for the Caucasus area. Proceedings of VIAM. No.15. 1985, pp. 94-112. (Russian)
15. Davitashvili T.: Filtration of computing noises in a regional prediction model, with account of the orography influence. Proceedings of VIAM. No.15. 1985, pp. 113-127. (Russian)
16. T. Davitashvili Numerical modeling of atmospheric processes dynamics for limited Regions. Abstract of Candidate of Sci. dissertation 1985 .p.21 (Russian).
17. T. Davitashvili "Numerical Modeling of the Atmospheric processes by the Full Equations of Hydrodynamics" Proceedings of Republic X Conference of Mathematics of HES of GSSR. Publisher TSU., 1986, pp.13-19. (Russian).
18. Davitashvili T., Janelidze P., Khvedelidze: Some results of experience of the Geopotential numerical prediction model examination in operative conditions. Proceedings of young scientist TSU Physics, No. 13, 1987. pp. 136-139. (Russian)
19. Davitashvili T.: Telescoping numerical weather prediction model with account of orography. Proceedings of conference active problems of VIAM. Tbilisi, 1983, pp. 30-37. (Russian)
20. Davitashvili T., Khvedelidze Z.: Investigation of the orography influence on the air currents at atmosphere mid-level by regional numerical prediction models. Proceedings TSU, Physics, No. 271, 1987. pp. 20-34. (Russian)
21. Davitashvili T., Mdinaradze J., Khvedelidze Z. "On Telescoping Numerical Forecast of Possible Areas of Precipitation at the Midle Layer of Atmosphere by Full Equations of Hydrodynamics With Account of Orography" Proceedings of All-Union Conference on

- “Active Impact on Hydro-meteorological Processes” Obninsk, Russia, 1987, p.45. (Russian).
22. Davitashvili T., Mdinardze J. “Hydrodynamic Forecast of Nebulosity of Caucasus Region on the Basis of Statistical Connections” Abstracts of Proceedings of HES’s of Caucasus. Tbilisi, Georgia, 1987, p. 34 (Russian).
  23. Davitashvili T.: On some wave properties of barotropic atmosphere prediction equations with account of orographic effects. Proceedings VIAM TSU, No. 25, 1988. pp. 81-92. (Russian)
  24. Davitashvili T.: The use of nested grid methods in the mid-level dew point deficit prediction model. Proceedings VIAM TSU, No. 25, 1988. pp. 107-117. (Russian)
  25. Davitashvili T.: Study of the complex orography influence on the air stream dynamic by numerical weather prediction model. Proceedings VIAM TSU, No. 25, 1988. pp. 118-131. (Russian)
  26. Davitashvili T.: Cloud bands and precipitations prediction in the mid-level of the atmosphere on the basis of hydrodynamics primitive equations with account of orography. Proceedings VIAM TSU, No. 25, 1988. pp. 93-106. (Russian)
  27. Davitashvili T. Numerical modeling of the mountains by-pass by air stream. Proceedings VIAM TSU, No. 40, 1990. pp. 34-50. (Russian)
  28. Davitashvili T., Evseev E., Shonia B.: Application vector-stream scheme for weather forecast computation. Proceedings VIAM TSU, No. 40, 1990. pp. 51-65. (Russian)
  29. Davitashvili T., Mdinardze D., Khvedelidze Z.: Prediction of precipitations zone with account of orography influence. Proceedings of conference “Active influence on the hydro meteorological processes”. Kiev 1990. pp. 35-38. (Russian)
  30. Davitashvili T. Numerical modeling of precipitations formation for mountain regions. Reports of enlarged sessions of the seminar of VIAM vol. 6. 1991. pp. 53-56 (Russian)
  31. Davitashvili T. On one numerical model of atmosphere pollution. Reports of enlarged sessions of the seminar of VIAM vol. 8., No. 3. 1993. pp. 36-39 (Russian)
  32. Davitashvili T. Numerical regional model of transfer and depositing of radioactive products for mountain areas- Reports of enlarged sessions of the seminar of VIAM vol. 5., No. 3. 1993. pp. 26-29
  33. Davitashvili T. Numerical model of the meteorological fields prediction with account of orography influence. Reports of enlarged sessions of the seminar of VIAM vol. 8., No. 3. 1995. pp. 12-15.
  34. Davitashvili T., Khvedelidze Z.: On numerical model of the radioactive products long-large transportation with account of orography and precipitations. Proceedings of Georgian symposium for project development and conversion. 1995. pp. 117-119.
  35. Davitashvili T. On one numerical model of atmosphere contamination -Reports of enlarged sessions of the seminar of VIAM vol. 8., No. 3. 1996. pp. 40—47
  36. Davitashvili T. Regional nested grid numerical model for baroclinic atmosphere forecast. Journal of Georgian Geophysical Society vol. 2. 1996 p. 43-50.
  37. T. Davitashvili Numerical modeling of Some Problems of atmosphere Physics for mountain regions. Abstract of Doctoral of Sci dissertation. 1997 p.42. (Georgian, Russian)
  38. Davitashvili T., Khvedelidze Z. Numerical model of the radioactive products transportation and fall down for the Caucasus region. Bulletin of the Georgian academy of sciences. 155. No1. 1997. pp.58-61.
  39. Davitashvili T. Numerical model of the dew point deficit prediction with account of orography. Bulletin of the Georgian academy of sciences. 155. No 2. 1997. pp.202-205
  40. Davitashvili T. Numerical model for the medium range baroclinic atmosphere forecast. Reports of Enlarged Session of the Seminar of VIAM vol.12. No 3.1997. pp 16-19

41. Davitashvili T., Gordeziani D., Khvedelidze Z. On the Mathematical Model of the Georgian Transport Corridor Contamination. Bulletin of the Georgian academy of sciences. 1733. No 2. 1999. pp. 123-127
42. Gordeziani D., Davitashvili T. Mathematical Model with Non-local Boundary Condition for the Atmosphere Pollution. Applied Mathematics and Informatics, vol.4, 1999, pp. 30-53.
43. Gordeziani D., Davitashvili T., Khvedelidze Z. Mathematical Model of the Atmosphere Pollution for the Mountain Region. Reports of enlarged Sessions of the Seminar of VIAM. vol.14 No3. 1999. pp.18-24.
44. Danelia R., Davitashvili T., Khvedelidze Z. On Atmosphere Processes Forecast in Underlying surface Layer with account of Prediction Area Non-homogeneous. Reports of enlarged Sessions of the Seminar of VIAM. vol.14 No3. 1999. pp.25-29.
45. Davitashvili T., Gordeziani D. Non-ordinary Boundary Conditions in the Problem of the Atmosphere Pollution. Report of enlarged Sessions of the Seminar of VIAM. vol 14. No3. 1999. pp. 36-39.
46. D.Gordeziani, T.Davitashvili, Z.Khvedelidze : On the One Mathematical Model of the Georgian Transport Corridor Pollution.-Bulletin of the Georgia Academy of Sciences 162, No1, 2000 pp. 73-76
47. T. Davitashvili, D.Gordeziani : Mathematical Model with Non-local Boundary Conditions for the Atmosphere Pollution.- Bulletin of the Georgia Academy of Sciences 161, No 3, 2000, pp. 435-437
48. T.Davitashvili, Q. Mirianashvili. Numerical Modeling of the Atmosphere Precipitation for the Georgian Territory. -Reports of Enlarged Session of the Seminar of VIAM, Vol. 15. No 2a, 2000, pp. 17-21
49. T. Davitashvili. Some Ecological Problems of Georgian Territory.- Bulletin of TICMI. volume 5. 2001.pp. 10-11
50. T. Davitashvili, Q. Inanishvili. "On Dew Point Deficit and Geopotential prediction By Regional Numerical Model With account of Composite orography"Proceedings of Signagi Branch Of Tbilisi State University, , 2001, pp. 227-233, (Georgian)
51. Davitashvili T., Sichinava J. Mathematical Modeling of Tbilisi Air Pollution,- Reports of Enlarged Sessions of the Seminar of VIAM, Vol.17, N3, 2002. pp.38-43.
52. Danelia R., Davitashvili T., Khvedelidze Z., The Role of Local Atmosphere in Solving of Environmental Problems.- Reports of Enlarged Sessions of the Seminar of VIAM, Vol.17, N3, 2002. p.p. 11-16.
53. Davitashvili T., Mirianashvili K. The Effects of Anthropogenic Pollution of the Atmosphere on the Human Health in Some Regions of Georgia,- Reports of Enlarged Sessions of the Seminar of VIAM, Vol.17, N3, 2002. p.p. 17-22.
54. Davitashvili T., Khantadze A., Tavkheldidze I. "Investigation of Climate Cooling with Account of Regional and Anthropogenic Factors in the Western Georgia",-Reports of Enlarged Sessions of the Seminar of VIAM, Vol.17, N3, 2002.p.p. 30-37.
55. Davitashvili T., Khantadze A., Sharikadze Kh. "Numerical Analyses of One Mathematical Model of Climate Warming",- Transactions of the Institute of Hydrometeorology Vol.108, 2002. p.p. 164-172.
56. Davitashvili T., Khantadze A., Sharikadze Kh. "Influence of Non-Linear Heat Sources on Climate Change",- Reports of Enlarged Sessions of the Seminar of VIAM, Vol.17, N3, 2002. p.p. 23-29.
57. K. Mirianashvili, T. Davitashvili. "The effect of some components of atmospheric pollutants on Human health"- Bulletin of Georgian Academy of Sciences, 166, No 2, 2002, p. 368-370.
58. Davitashvili T., Dikhaminjia N., Gunava G., Komurjishvili O. Pollutants transfer in environment with one new three-dimensional numerical scheme.- Reports seminar of I. Vekua Institute of Applied Mathematics. Vol. 28, 2002. pp. 25-30.



59. Z. Khvedelidze, T. Davitashvili, Q. Shariqadze, Q. Inanishvili. "On Some Climate Peculiarity On The Territory of Georgia".- Proceedings of Vakhushti Bagrationi Geography Institute of Georgian Academy of Sciences . No 21, 2003. pp.. 46-57, (Georgian)..
60. T. Davitashvili K. Mirianashvili, "Investigation of Atmosphere Antropogenic Pollution Influence on the Human Helth for some Regions of Georgia" Proceedings of Hydro-meteorological Institute of Georgian Academy of Sciences No. 118, 2003, pp. 222-227, (Georgian).
61. J. Mdinaradze, T. Davitashvili, G. Geladze, J. Vachnadze. On Independent Meteorological data Retrieval For Kolkhi Downland Meteorological Stations".- Proceedings of Vakhushti Bagrationi Geography Institute of Georgian Academy of Sciences No 21, 2003. pp. 156-159. (Georgian)
62. A. Ebel, T. Davitashvili, H. Elbern, D. Gordesiani, H.J. Jackobs, M. Memmesheimer and I. Tavkheldidze. Numerical modelling of air polution on regional and local scales.- Applied Mathematics Informatics and Mechanics (AMIM), Vol.9 No.2., 2004. pp. 35-45
63. T. Davitashvili , „Numerical and Teoretical Investig. of Spreading Oil Filtration in Soils for Caucasus Region ”, -Journal “Geography and Natural Resorses”., Novosibirsk, Russia, 2004, pp. 215-226
64. T. Davitashvili, A. Kantadze. „Research of Conditions of the climate Change in Georgia in view of Regional Antropogenic Factors”. -Journal “ Geography and Natural Resorses”. Novosibirsk, Russia, 2004. pp. 302-308
65. Davitashvili T., Khantadze A., Samkharadze I. “Environmental And Social – Economical Baseline Of The Georgian Section Of The Baku-Tbilisi-Ceyhan Pipeline”, // -Proceedings of Odlar Yurdu University. -2004.- Baku, Azerbaijan, p 110-119.
66. Khantadze A., Davitashvili T. ,On Non-linear Theory of Oil Filtration in Soils. // - Proceedings of Odlar Yurdu University. –2004- Baku, Azerbaijan, p. 70-73.
67. T.Davitashvili, K.Mirianashvili, Z. Nonikashvili “Investigation of radioactive fall-oution Georgian territory in case of emergency at Armenian nuclear power station”- Bulletin of the Georgian Academy of sciences Vol. 170, No. 1, 2004, p.p 89-93.
68. T. Davitashvili, K.Mirianashvili, Z.Nonikashvili “Investigation of Radioactive Prodacets Fall-out on the Territory of Georgia in Case of Armenian Power Station Acident.”- Buletten of the Academy of Sciencess N2, 2004, pp. 89-93
69. T.Davitashvili- “Mathematical Modelling of Problems of Control Theory, Elasticity Theory, Hydrothermodynamics, and Statistics Connected With the Terrorist Attacs and Defence Against Terrorism” - Proceedings of NATO Modelling and Simmulation Group Conference (G-027), Koblenz, Germany, 2004, pp. 45-61
70. T. Davitashvili, “Soil filtration problems for the Georgian section of TRACECA and there numerical treatment”,-Abstracts of the NATO Advanced Research Workshop (NATO ARW) on “ Air, Water, and Soil Quality Modelling For Risk And Impact Assessment” 16-20 Sep. Tabakhmela, Georgia, 2005, pp.20-21.
71. T. Davitashvili, O. Komurjishvili, G Gunava – Finite Difference Schemes For Multidimensional Parabolic Type Equation And Systems With Constant Coefficients - Enlarged Sessions of I.Vekua Institute of Applied Mathematics– vol 20 № 3, 2005,pp. 45-51.
72. T.Davitashvili, I. Samkharadze, “Mathematical Modeling of Georgian Territory Pollution With Account of “Hot Points” “-E1anlarged Sessions of I.Vekua Institute of Applied Mathematics– vol 20 № 3, 2005, pp. 51-58.
73. O.Komurjishvili, T. Davitashvili, G.Gunava – On Numerical Schemes of the Nonlinear Parabolic Type Equation Describing Fluid Filtration in Soil - Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics, vol. 21, № 3 2006, pp. 71-76

74. G.Geladze , T.Davitashvili , G. Gunava, N. Skhirtladze – Numerical Models of Cloud with Account of Some Moments of Solar Radiation - Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics- vol .21, № 3, 2006 , pp. 51-55
75. G.Geladze , T.Davitashvili , G. Gunava N.Skhirtladze – Including of the Elements of a Microphysics in the Numerical Model of Cloud - Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics- vol. 21, № 3 ,2006, pp. 56-59.
76. T.Davitashvili, I. Samkharadze, G.Geladze, G.Gunava, N. Dichaminjia - On One 3D numerical model of harmful Substances Transfer with Account of Composite orography - Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics- vol. 21, № 3, 2006, pp. 32-37
77. Z. Khvedelidze, T. Davitashvili, I. Samkharadze – “ Investigation of the Air and Hydrocurrents in the Narrow Channel Taking into Account Compound Relief of Bottom” Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics- vol. 21, № 3, 2006, pp. 81-88.
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