

# CURRICULUM VITAE

## Giorgi Khimshiashvili

### Personal

Born 28.10.1951 in Tbilisi, citizen of Georgia

Father: Nikolay Khimshiashvili

Mother: Violetta Bregvadze

Married to Tamar Lomadze, one daughter Nino

### Languages

Georgian, Russian (native speaker), English (fluent), Polish (good), German, French (conversational)

### Education

1968 - graduated with golden medal from secondary school No.42, Tbilisi

1973 - graduated from the Faculty of Mechanics and Mathematics of Moscow State University, Honours Diploma C 572684

1977 - Candidate Phys. Math. Sci., Diploma MFM 043682, issued by the Supreme Attestation Commission (VAK) USSR

1992 - Doctor Phys. Math. Sci., Diploma DT 016471, issued by VAK USSR

2000 - Titular Professor, Diploma GA 000179, issued by Tbilisi State University

### Scholarships and Fellowships

1999 – Scholarship from Svenska Institutet, Stockholm

2006 – Scholarship from The Queen Jadwiga Foundation, Krakow

### Employment

1977-1982 – Researcher at A.Razmadze Mathematical Institute

1982-1993 – Leading Researcher at A.Razmadze Mathematical Institute

2005 - 2011 – Chief Researcher at A.Razmadze Mathematical Institute

1972 - 1973 - Assistant Professor at Moscow State University

1978 - 1982 - Associate Professor at Tbilisi State University

1995 - 2003 - Extraordinary Professor at Lodz University

2006 – Full Professor at Ilia Chavchavadze University, Tbilisi

2006 – 2011 – Senior Associate at ICTP, Trieste

2008 – Director of the Institute for Fundamental and Interdisciplinary Mathematical Research

### **Distinctions**

1981 - Medal with prize of the Georgian Academy of Sciences for young scientists

2004 - A.Razmadze medal with prize of the Georgian Academy of Sciences

### **Professional Memberships**

Member of Georgian Mathematical Union

Member of International Society for Algebra, Analysis and Computations

Member of the Editorial Board of international journal "Contemporary mathematics and its applications"

Member of the Editorial Board of international journal "Memoirs on differential equations and mathematical physics"

Member of the Editorial Board of international journal "Tbilisi Mathematical Journal"

## **Publications of G.Khimshashvili**

### **a. Publications in international refereed journals**

1. Polysingular operators and topology of invertible singular operators. Zeitschr. Anal. Anw. 5, 1986, 139-145.
2. On the topology of invertible linear singular integral operators. Springer Lecture Notes Math. 1214, 1986, 211-230.
3. On the Riemann-Hilbert problem for a compact Lie group. (Russian) Doklady Akad. nauk 310, 1990, 1055-1058.
4. On Fredholmian aspects of linear transmission problems. Springer Lecture Notes Math. 1520, 1992, 193-216.
5. On the cardinality of semi-algebraic subset. Georgian Math. J. 1, 1994, no.3, 311-321.
6. Homotopy classes of elliptic transmission problems over  $C^*$ -algebras. Georgian Math. J. 5, 1998, no.5, 453-468.
7. On generalized Sklyanin algebras. Georgian Math. J. 7, 2000, no.4, 789-800. (with R.Przybysz)
8. Elliptic cells in Riemann-Hilbert setting. Bull. Soc. Sci. Lett. Lodz Ser. Rech. Deform. 31, 2000, 107-119.

9. On local invariants of totally real surfaces. *Georgian Math. J.* 8, 2001, no.1, 97-109.
10. Hyper-holomorphic cells and Fredholm theory. *Georgian Math. J.* 8, 2001, no.3, 499-512.
11. Global geometric aspects of Riemann-Hilbert problems. *Georgian Math. J.* 8, 2001, no.4, 713-726. (with B.Bojarski)
12. On certain super-integrable Hamiltonian systems. *J. Dyn. Contr. Syst.* 8, 2002, no.2, 217-244. (with R.Przybysz)
13. Analytic discs and complex points of surfaces. *Bull. Soc. Sci. Lett. Lodz Ser. Rech. Deform.* 38, 2002, 147-166. (with E.Wegert)
14. Global geometric aspects of linear conjugation problems. *J. Math. Sci.* 118, no.5, 2003, 5400-5466.
15. Remarks on minimal round functions. *Banach Center Publ.* 62, 2004, 159-172. (with D.Siersma)
16. On Schroedinger equations of Okubo type. *J. Dyn. Contr. Syst.* 10, 2004, 171-186. (with G.Giorgadze)
17. New applications of algebraic formulae for topological invariants. *Georgian Math. J.* 11, 2004, 759-770.
18. Surfaces as intersections of quadrics.(Russian) *Doklady Akad. Nauk* 399, 2004, 173-175.
19. Fredholm structures on loop groups. (Russian) *Doklady Akad. Nauk* 401, 2005, 309-311.
20. Elliptic boundary problems for generalized Cauchy-Riemann systems. (Russian) *Doklady Akad. Nauk* 403, 2005, 1-4.
21. Multidimensional residues and polynomial equations. *Contemp. Math. Applic.* 15, 2004, 71-120.
22. Holomorphic tubes in Cauchy-Riemann manifolds. *Complex Variables* 50, No.7-11, 2005, 575-584.
23. The geometry of Kato Grassmannians. *Central Europ. J. Math.* 3, No.4, 2005, 705-717. (with B.Bojarski)
24. Holomorphic dynamics in loop spaces. *J. Dynam. Control Syst.* 12, No.1, 2006. 33-48. (with T.Aliashvili)
25. On the Euler characteristic of an intersection of quadrics. (Russian) *Uspekhi matem. nauk* 73, No.3, 2006, 161-162. (with T.Aliashvili)
26. Riemann-Hilbert problems in loop spaces. (Russian) *Doklady Akad. Nauk* 407, No.5, 2006, 589-591. (with G.Giorgadze)
27. Lie algebras of simple hypersurface singularities. *J. Lie Theory* 16, No.4, 2006, 621-649. (with A.Elashvili)

28. Topology of stable quadratic maps. (Russian) Doklady Akad. Nauk 408, No.1, 2006, 7-10. (with T.Aliashvili)
29. Holomorphic curves and Riemann-Hilbert problems in loop spaces. J. Appl. Func. Anal. 2, 2007, 111-124. (with E.Wegert)
30. Loop spaces and Riemann-Hilbert problems. Banach Center Publ. 76, 2007, 411-424.
31. Cyclic polygons are critical points of area. J. Math. Sci. (N.Y.) 158, 2009, No.6, 899-903. (with G.Panina)
32. On stochastically independent continuous functions. J. Math. Sci. (N.Y.) 160, 2009, No. 6, 117-126. (with K.Kalashnikov)
33. Configuration spaces and signature formulae. J. Math. Sci. (N.Y.) 160, 2009, No.6, 127-136.
34. On the area of polygonal linkage. (Russian) Doklady Akad. Nauk 442, 2012, No.6, 743-745. (with G.Panina)
35. Critical configurations of planar robot arms. Centr. Europ. J. Math. 11, 2013, No.3, 519-529. (with G.Panina, D.Siersma, A.Zhukova)
36. Cyclic configurations of spherical polygons. Doklady Mathematics 87, No.3, 2013, 300--303. (with G.Giorgadze)
37. Coulomb control of polygonal linkages. J. Dyn. Control Syst. 20, No.4, 2014, 491--501. (with G.Panina and D.Siersma)
38. Equilibria of point charges on convex curves. J. Geom. Phys. 98, 2015, 110-117. (with G.Panina and D.Siersma)
39. On non-degeneracy of certain constrained extrema, Doklady Akademii Nauk 465, No.3, 2015, 1-5. (with G.Giorgadze)
40. Cross-ratios of quadrilateral linkages. J. Sing. 13, 2015, 159-168. (with D.Siersma)
41. Moduli spaces of bicentric quadrilaterals. J. Math. Sci. (N.Y.) 211, No.1, 2015, 3-39.
42. Equilibria of three constrained point charges. J. Geom. Phys. 106, No.1, 2016, 42--50. (with G.Panina and D.Siersma)
43. Point charges and polygonal linkages, J. Dyn. Control Syst. 23, No.1, 2017, 1-17. (with G.Panina, D.Siersma, and V.Zolotov)
44. On concyclic equilibrium configurations. Doklady Mathematics 481, No.1, 2018. (with G.Giorgadze)

## **b. Publications in national refereed journals**

1. On the big inductive uniform dimension. (Russian) Bull. Acad. Sci. Georgian SSR 70, 1973, 25-28. (with S.Bogaty)
2. On the relation between uniform dimension and decomposing mappings. (Russian) Ibid. 73, 1974, 281-284. (with S.Bogaty)
3. On the mapping degree theory in Hilbert space. (Russian) Ibid. 82, 1976, 41-44.
4. On the bifurcation theory for ordinary differential equations in Banach spaces. (Russian) Ibid. 84, 1976, 557-560.
5. On the small solutions of analytic Fredholm equations. (Russian) Vestnik Mosk. Gos. Univ. 2, 1977, 27-31.
6. On the local degree of smooth mapping. (Russian) Bull. Acad. Sci. Georgian SSR 85, 1977, 309-312.
7. On deleting projectable subsets of Banach spaces by etale diffeomorphisms. (Russian) Ibid. 92, 1978, 121-124.
8. On the level surfaces of smooth functions on manifold with corners. (Russian) Ibid. 95, 1979, 529-532.
9. On the local degree of smooth mapping. (Russian) Proc. A.Razmadze Math. Inst. 64, 1980, 105-124.
10. Fredholm analytic sets and branching of solutions of nonlinear equations. (Russian) Trudy Tbiliss. Univ. 218, 1981, 159-182.
11. The Euler characteristic of manifold with boundary and critical points of finite multiplicity. (Russian) Bull. Acad. Sci. Georgian SSR 101, 1981, 273-276.
12. Bifurcation of zeroes of parameterized smooth mappings near a critical point of even multiplicity. (Russian) Ibid. 102, 1981, 273-276.
13. On the topology of the space of invertible singular integral operators. (Russian) Ibid. 108, 1982, 273-276.
14. On the topological structure of invertible singular integral operators. (Russian) Trudy Tbiliss. Univ. 232, 1982, 256-270.
15. Euler characteristic and critical points of smooth functions. (Russian) Proc. A.Razmadze Math. Inst. 85, 1982, 123-141.
16. Functional calculus and Fredholm theory of singular operators. Doklady rasshir. semin. IPM TGU 1, 1985, 213-216.
17. An index formula for holomorphic image of commuting operators. (Russian) Uspekhi matem. nauk 40, 1985, 157-158.
18. Invariants of real singularities and branching of solutions of operator equations. (Russian) Bull. Acad. Sci. Georgian SSR 120, 1985, 25-28.

19. Generalization of Borsuk-Ulam theorem and Knaster problem. (Russian) *Ibid.* 123, 1986, 477-480. (with S.Bogaty)
20. On the connection of Fredholm index with analytic geometry. (Russian) *Bull. Acad. Sci Georgian SSR* 127, 1987, 465-468
21. To the theory of algebras of singular operators. (Russian) *Proc. RMI* 85, 1987, 465-478.
22. On the Riemann problem with values in a compact Lie group. (Russian) *Trudy Inst. Prikl. Math. TGU* 3, 1988, 186-189.
23. On the topology of generalized Riemann-Hilbert boundary value problem. (Russian) *Bull. Acad. Sci. Georgian SSR* 135, 1989, 241-244.
24. On the surjectivity of nonlinear mappings of lineals. *Ibid.* 136, 1989, 289-291.
25. On homotopies of invertible pseudodifferential operators. *Ibid.* 137, 1990, 21-24.
26. Lie groups and transmission problems on Riemann surfaces. *Ibid.* 138, 1990, 29-32.
27. On certain non-stable homotopy invariants for operator algebras. *Ibid.* 139, 1990, 469-472.
28. Linear conjugation problems and Fredholm structures. *Trudy IPM TGU* 5, 1990, 189-192.
29. Functional calculus and Fredholm theory. (Russian) *Proc. A. Razmadze Math. Inst.* 94, 1991, 86-110.
30. On the numbers of zeroes of a real polynomial endomorphism. *Bull. Georgian Acad. Sci.* 146, 1992, 469-472.
31. To the Fredholm theory of operator algebras. (Russian) *Proc. A. Razmadze Math. Inst.* 98, 1993, 182-194.
32. On the topology of certain groups of abstract singular operators. (Russian) *Ibid.* 98, 1993, 195-206.
33. On the topology of Birkhoff strata in loop groups of compact Lie groups. (Russian) *Ibid.* 100, 1993, 86-94.
34. Remarks on Calkin PI-algebras and category-like invariants. *Proc. A. Razmadze Math. Inst.* 104, 1994, 95-109.
35. Nonlinear transmission problems. *Mem. Differ. Eq. Math. Phys.* 12, 1997, 223-230. (with E.Wegert and I.Spitkovsky)
36. Homotopy classes of abstract elliptic transmission problems. *Bull. Georgian Acad. Sci.* 159, 1999, no.2, 193-195.
37. On one class of exact Poisson structures. *Proc. A. Razmadze Math. Inst.* 119, 1999, 111-120.
38. On the average topological degree of random polynomials. *Bull. Georgian Acad. Sci.* 159, 1999, no.3, 385-388. (with A.Ushveridze)

39. On one class of affine Poisson structures. Bull. Georgian Acad. Sci. 161, 2000, no.3, 395-397.
40. Analytic discs and totally real surfaces. Bull. Georgian Acad. Sci. 162, 2000, no.1, 41-44. (with E.Wegert)
41. Minimal round functions on low-dimensional manifolds. Bull. Georgian Acad. Sci. 162, 2000, No. 4, 3-7. (with D.Siersma)
42. Topological aspects of generalized Sklyanin algebras. Bull. Georgian Acad. Sci. 163, 2001, no.1, 11-14. (with R.Prszybysz)
43. Elliptic cells and Fredholm operators. Bull. Georgian Acad. Sci. 164, 2001, no.2, 215-218.
44. Complex points of planar endomorphisms. Bull. Georgian Acad. Sci. 165, 2002, no.1, 5-8. (with E.Wegert)
45. Counting roots of quaternionic polynomials. Bull. Georgian Acad. Sci. 165, 2002, no.3, 465-468.
46. On configuration spaces of planar pentagons. Zap. Nauchn. Semin. Sankt-Peterb. Otd. Mat. Inst. Steklova 292, 2002, 121-130.
47. Remarks on real polynomial mappings. Proc. Inst. Cybern. GAS 2, 2002, no.1-2, 74-84.
48. On the fibers of proper polynomial mappings. Bull. Georgian Acad. Sci. 167, 2003, no.3, 400-403.
49. Topological aspects of random polynomials. Bull. Georgian Acad. Sci. 168, 2003, no.1, 5-8.
50. The non-abelian Stokes theorem in low dimensions. Mem. Diff. Eq. Math. Phys. 31, 2004, 5-14. (with B.Broda and G.Duniec)
51. Analytic discs in loop spaces. Bull. Georgian Acad. Sci. 169, 2004, 443-446.
52. Elementary algebraic geometry in geometric algebras. Bull. Georgian Acad. Sci. 170, 2004, 5-8.
53. Stochastically independent functions on closed surfaces. Bull. Georgian Acad. Sci. 170, 2004, 123-126. (with K.Kalashnikov)
54. Three-sphere as holomorphic curve. Proc. Inst. Cybern. GAS 3, 2004, 53-62.
55. Quadratic mappings and integrable systems. Ibid. 3, 2004, 63-72. (with T.Aliashvili)
56. The geometry of Fredholm pairs and linear conjugation problems. Mem. Diff. Eq. Math. Phys. 33, 2004, 25-45. (with B.Bojarski)
57. Isolated singularities and solvable Lie algebras. Bull. Georgian Acad. Sci. 171, 2005, 416-419. (with A.Elashvili)
58. Stable holomorphic curves in loop spaces. Bull. Georgian Acad. Sci. 172, No.1, 2006, 1-4. (with D.Siersma)

59. Derivation Lie algebras of isolated binomial singularities, Bull. Georgian Acad. Sci. 174, No.3, 2006. (with A.Elashvili)
60. Holomorphic structures in Seifert fibrations. Bull. Georgian Natl. Acad. Sci. 175, No.1, 2007, 23-26. (with R.Wolak)
61. On stable quaternionic polynomials. Bull. Georgian Natl. Acad. Sci. 175, No.3, 2007, 19-21.
62. Loewner conjecture for quasihomogeneous polynomials. Bull. Georgian Natl. Acad. Sci. 175, No.4, 2007, 27-30.
63. Cyclic configurations of pentagon linkages. Bull. Georgian Natl. Acad. Sci. (New Series) 2, 2008, No.4, 13-16. (with E.Elerdashvili and M.Jibladze)
64. Cyclic configurations of spherical linkages. Bull. Georgian Natl. Acad. Sci. 3, 2009, No.2, 19-22.
65. Remarks on spherical linkages. Bull. Georgian Natl. Acad. Sci. 4, 2010, No.2, 8-12. (with G.Giorgadze)
66. Circular configurations of polygonal linkages. Bull. Georgian Natl. Acad. Sci. 4, 2010, No.3, 13-18. (with G.Bibileishvili)
67. Factorization of loops in loop groups. Bull. Georgian Natl. Acad. Sci. 5, 2011, No.3, 35-38. (with G.Giorgadze)
68. Extremal problems on moduli spaces of mechanical linkages. Proc. A.Razmadze Math. Inst. 155, 2011, 147-151.
69. Maxwell conjecture and polygonal linkages. Bull. Georgian Natl. Acad. Sci. 6, 2012, No.2, 17-22.
70. On Poncelet porism for biquadratic curves. Bull. Georgian Natl. Acad. Sci. 7, 2013, No.1, 5-10.
71. Equilibria of constrained point charges. Bull. Georgian Natl. Acad. Sci. 7, 2013, No.2, 15-20.
72. Remarks on bicentric polygons. Bull. Georgian Natl. Acad. Sci. 7, 2013, No.3, 5-10. (with G.Giorgadze)
73. Equilibria of point charges in convex domains. Bull. Georgian Natl. Acad. Sci. 9, 2015, No.2, 19-26. (with G.Giorgadze)
74. Equilibria of point charges on nested circles. Bull. Georgian Natl. Acad. Sci. 9, 2015, No.3, 43-49. (with G.Giorgadze)
75. Remarks on bicentric quadrilaterals. Proc. A.Razmadze Math. Inst. 168, 2015, 41-52.
76. Extremal problems for bicentric polygons. Proc. I. Vekua Inst. Appl. Math. 66 (2016), 33-40.

77. Remarks on homogeneous endomorphisms. Proc. I. Vekua Inst. Appl. Math. 66 (2016), 24--32.
78. Configurations of points as Coulomb equilibria. Bull. Georgian Natl. Acad. Sci. vol.10, No.1, 2016, 20--27.
79. Discrete invariants of quadratic endomorphisms, Bull. Georgian Natl. Acad. Sci. vol.11, No.3, 2017, 7-13.
80. Equilibria of point charges on elastic contour, Bull. Georgian Natl. Acad. Sci. vol.11, No.4, 2017, 9-15.
81. Extremal problems for bicentric quadrilaterals, Transactions of Ajara Regional Scientific Center of Georgian National Academy of Sciences, vol.2, 2017, 9-16.
82. Concyclic and aligned configurations of point charges, Proc. I.Vekua Inst. Appl. Math. 67, 2017, 35-46. (with G.Giorgadze)
83. Point charges in linear ion traps, Proc. I.Vekua Inst. Appl. Math. 68, 2018, 21-28. (with G.Giorgadze)
84. Regular stars as critical points. Bull. Georgian Natl. Acad. Sci. vol.12, No.4, 2018, 11-18. (with G.Panina and D.Siersma)
85. Connecting cycles for concentric circles. Bull. Georgian Natl. Acad. Sci. vol.13, No.1, 2019, 11-18. (with D.Siersma) (accepted)
86. Electrostatic problems on systems of circles. Arch. Mech. (submitted)

### **c. Books**

1. Signature formulae for topological invariants. A.Razmadze Mathematical Institute Proc. 125, 2001, 1-121.
2. Geometric aspects of Riemann-Hilbert problems. Memoirs on Differential Equations and Mathematical Physics 27, 2002, 1-114.
3. In search of lost roots. (Georgian) Ilia State Univ. Press, Tbilisi, 2009. 136 p.

### **d. Conference proceedings**

1. On the change of Euler characteristic under mappings with isolated singularities. (Russian) In: "4<sup>th</sup> All-Union symposium in general topology". Kishinev, 1979, 154-155.
2. Local multiplicity and branching of solutions of nonlinear boundary value problems. (Russian) In: "Boundary value problems of mathematical physics". Naukova Dumka, Kiev, 1981, 77-78.

3. Development of specialization processes in course of scientific and technical progress. (Russian) In: "Problems of measuring the influence of scientific-technical progress on industry", Leningrad, 1983, 89-98. (with R.Satanovsky and E.Sheremetyeva).
4. The Grothendieck residue symbol and topological degree. In: "Komplexe Analysis und ihre Anwendungen auf Differentialgleichungen". Halle, 1983, Bd.1, 75-77.
5. On the number of solutions of analytic equations. In: "Complex Analysis and its Applications". Sofia, 1984, 239-245.
6. The non-commutative functional calculus and Fredholm theory. (Russian) In: "Modern problems of mathematical physics". Tbilisi, 1987, 404-410.
7. On the homotopy structure of invertible singular operators. In: "Complex Analysis and its Applications". Sofia, 1989, 230-234.
8. On the generalized Riemann-Hilbert problem with coefficients in a compact Lie group. Pitman. Res. Notes Math. 256, 1991, 86-94.
9. Lie groups and linear conjugation problems on Riemann surfaces. Contemp. Math. 131, 1992, 164-178.
10. Loop groups and Fredholm operators. Pitman Res. Notes Math. 271, 1992, 116-127.
11. Some topological aspects of elliptic boundary problems. In: "Partial Differential Equations", MPIM Preprint 90, 1993, 30-33.
12. Elliptic boundary problems for generalized Cauchy-Riemann systems. In: "Analytical and numerical methods in quaternionic and Clifford analysis". Proc. Conf. Seiffen, 1996, 77-83.
13. Stability of analytic discs in Riemann-Hilbert setting. In: "Proc. 1<sup>st</sup> Polish Symp. Nonlin. Analysis", Lodz University, 1997, 77-82.
14. On one class of affine Poisson structures. In: "Proc. International Workshop ISPM (Tbilisi, September 1998)", Annecy, 1999, 21-30.
15. On totally real non-compact manifolds globally foliated by analytic discs. In: "Partial Diff. Int. Equations", Kluwer, Dordrecht, 1999, 107-123. (with E.Wegert and I.Spitkovsky)
16. Hyper-holomorphic cells and Riemann-Hilbert problems. In: "Clifford analysis and its applications". NATO Sci. Ser., II Math. Phys. Chem. 25, Kluwer, Dordrecht, 2001, 123-133.
17. Complex geometry of quadrilateral linkages, In: "Recent developments in generalized analytic functions and their applications", Tbilisi, 2011, 90-100.

### **e. Preprints**

1. Nonlinear boundary value problems for first order elliptic systems, TU-Bergakademie Freiberg Preprint No.5, 1995. 25 p. (with E.Wegert)
2. Towards homotopy classification of elliptic boundary problems, TU-Bergakademie Freiberg Preprint No.1, 1997. 16 p.
3. On totally real non-compact manifolds globally foliated by analytic discs, TU-Bergakademie Freiberg Preprint No.8, 1997. 34 p. (with I.Spitkovsky and E.Wegert)
4. Analytic discs and singular surfaces, TU-Bergakademie Freiberg Preprint No.11, 1997. 26 p. (with E.Wegert)
5. On minimal round functions, Utrecht University Preprint 1118, 1999. 16 p. (with D.Siersma)
6. Remarks on generalized Sklyanin algebras, Uppsala Univ. Preprint 2000:19.
7. On local invariants of totally real surfaces, Uppsala Univ. Preprint 2000:20.
8. Elliptic cells and Fredholm operators, Uppsala University Preprint 2000:29.

9. Hyper-holomorphic cells and Fredholm operators, MRI Preprint 02/08/01, Ohio State University, 2001. 18p.
10. Holomorphic families of loops in 3-folds, MRI Preprint 12/11/06, Ohio State University, 2006. 12p.
11. Yau algebras of fewnomial singularities, Utrecht University Preprint 1352, 2006. 18 p.
12. Pursell-Shanks type theorems for fewnomial singularities, Preprint ICTP IC/2006/016. 21 p.
13. Cyclic configurations of planar multiple penduli, Preprint ICTP IC/2009/047. 11 p. (with D.Siersma)
14. Cyclic polygons as critical points. Max-Planck-Institut für Mathematik Preprint 10-118, 2010. 24 p.
15. Extremal configurations of polygonal linkages, MFO Oberwolfach Preprint 24-11, 2011. 28 p. (with D.Siersma, G.Panina, A.Zhukova)
16. G.Khimshiashvili et. al. (8 co-authors) The Mathematics of French Fries, Proc. of 98<sup>th</sup> European Study Group with Industry, 24-33, Delft Technical University, 2014. (ISBN: 978-94-6186-306-5)