

CURRICULUM VITAE

1. Biographical Statement

First Name: **Utkir**

Family Name: **Rozirov**

Middle name: **Abdulloyevich**

Personal: Year of Birth: 1970, 20 May, Bukhara, Uzbekistan.

Marital status: Married. Have three children.

Nationality: Uzbekistan

AFFILIATION Institution: Institute of Mathematics.

Mailing Address: Institute of Mathematics, 29, Do' rmon Yo' li str. 100125, Tashkent, Uzbekistan

Phone: 998-71-263-39-57, FAX: 998-71-262-73-57

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Academic Degree:

- Doctor of philosophy in physics and mathematics, (Certificate: 01N002466, 29.02.1996)
- Doctor of sciences in physics and mathematics. (Certificate: N04.003457, 27.09.2001)
- Professor (Certificate: 05N002449, 27.05.2010)

2. Education:

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| (a) fi degree course (subject, university, dates) | Mathematics, Samarkand State University 01/09/1987- 20/06/1993 |
| (b) doctoral thesis (title, university date, supervisor' s name) | Extreme Gibbs measures for some models on Cayley trees, Institute of Mathematics, 11/10/1995, Prof. Nasir Ganikhodjaev |
| (c) 'habilitation' or 'kandidatura' thesis (title, university, date) | Investigations of Gibbs measures and random walks in a random environment on Cayley trees. 24/01/2001. |

3. Languages:

English (Good), Russian (Very Good), Uzbek (Native), Tajik (Very Good)

4. Professional occupation:

1995 - 1999 Scientific fellow of the Institute of Mathematics, Tashkent, Uzbekistan.

1999 - 2001 Post doctoral fellow,

2001 - up to present time Leading scientific fellow.

5. Pedagogical activities.

1999-2003 *Associate Professor* of The Tashkent State Economical University.

2000-2002 *Professor* of The National University of Uzbekistan. Special courses on " Gibbs measures and phase transitions" and " p -adic analysis and Dynamical systems" , General course on " Functional analysis" .

01.2007-12.2007 *Professor* of The School of Mathematical Sciences, GC University Lahore, Pakistan. Special courses on " Gibbs distributions and phase transitions" and " Dynamical systems" .

6. Grants, Awards, Fellowships

1. (1995) Prize of Japan Embassy in Tashkent.
2. (2001) Prize winner among young scientists of Academy Sciences of Uzbekistan.
3. (2001) Prize of Third World Academy of Science (TWAS) and Uzbek Academy of Science.
4. (2002) Grantee of Cambridge colleges hospitality scheme.
5. (2002) Grantee for ICM-2002, Beijing, China.
6. (2002, 2004) Fellowship grants received from ICTP, Trieste, Italy (3 months each)
7. (2003) Grantee for NATO-Advanced Studies, Edinburgh, UK
8. (2003) Medal " Uzbekiston Belgisi" from government of Uzbekistan.
9. (2003, 2006, 2012) Fellowship grant received from IHES, Bures-sur-Yvette, France (4 months, 2 months and 3 months durations).
10. (2003-2006) NATO Reintegration Grant (3 years duration)
11. (2004) The Royal Society grant in Newton Institute, Cambridge, UK.
12. (2004-2005) CNR-Fellowship grant received from the Italian Center of National Researches,(6 months duration).
13. (2005-2010) Junior Associate of ICTP, Trieste, Italy.
14. (2007-2012) TWAS young Affiliate, Trieste,Italy.
15. (2009) Prize of TWAS for young scientists.
16. (2010) TUBITAK grant, Zirve university, Turkey (1 month duration).
17. (2010-2012) TWAS Research Grant (1.5 years duration).
18. (2010, 2011, 2012, 2013) Visiting professor fellowships, University Santiago de Compostela, Spain (2, 3, 1 and 1 months durations).
19. (2011, 2013) Visiting professor fellowship, Universite du Sud Toulon Var and Centre de Physique Theorique, Marseille, France (1 month duration each).
20. (2011) DFG AL 214/36-1 grant, Germany (1 year duration).
21. (2012) TWAS young Alumnus, Trieste, Italy.
22. (2012) CNRS fellowship, Centre de Physique Theorique, Marseille, France (3 months duration).
23. (2013) Visiting professor fellowships, Ruhr University, Bochum, Germany (2 months duration).
24. (2014) Grantee for ICM-2014, Seoul, Korea.

7. Visits :

| Host institution, country: | Reason for visit | From : | To : |
|--|---|------------|------------|
| 1. Institute of Mathematics, Kiev, Ukraine | Conference in Probab. Theory and Math. Stat. | 8.06.1999 | 12.06.1999 |
| 2. Institute for information transmission Problems, Moscow, Russia | For discussion of results | 19.06.2000 | 24.06.2000 |
| 3. Cambridge, UK | Cambridge colleges hospitality scheme | 1.07.2002 | 31.07.2002 |
| 4. Beijing, China | International Congress of Mathematicians | 20.08.2002 | 28.08.2002 |
| 5. The Abdus Salam International Center for Theor. Physics, Trieste, Italy | Visiting Mathematician | 16.09.2002 | 16.12.2002 |
| 6. Edinburgh , UK | NATO ASI | 07.07.2003 | 20.07.2003 |
| 7. IHES, Bures-sur-Yvette, France | Visiting Mathematician | 05.09.2003 | 26.12.2003 |
| 8. Newton Institute Cambridge, UK | IGCSS programme | 10.11.2003 | 25.11.2003 |
| 9. The Abdus Salam International Center for Theor. Physics, Trieste, Italy | Visiting Mathematician | 08.04.2004 | 08.07.2004 |
| 10. Newton Institute Cambridge, UK | The Royal Society grant | 22.08.2004 | 06.09.2004 |
| 11. University Rome 1 Rome, Italy | NATO-CNR fellowship | 06.09.2004 | 22.02.2005 |
| 12. Moscow State University Russia | For discussion of results | 19.10.2005 | 21.10.2005 |
| 13. University Rome 1 Rome, Italy | Visiting Mathematician | 21.10.2005 | 08.11.2005 |
| 14. The Abdus Salam International Center for Theor. Physics, Trieste, Italy | Junior Associate member | 22.05.2006 | 20.08.2006 |
| 15. IHES, Bures-sur-Yvette, France | Visiting Mathematician | 26.10.2006 | 26.12.2006 |
| 16. SMS, GC University, Lahore, Pakistan | Faculty | 21.02.2007 | 22.05.2007 |
| 17. IIUM, Kuantan, Malaysia | Visiting Mathematician | 16.07.2007 | 14.08.2007 |
| 18. SMS, GC University, Lahore, Pakistan | Faculty | 26.09.2007 | 25.12.2007 |
| 19. TWAS, Trieste, Italy | 18th General Meeting | 12.11.2007 | 15.11.2007 |
| 20. The Abdus Salam International Center for Theor. Physics, Trieste, Italy | Junior Associate member | 23.06.2008 | 28.08.2008 |
| 21. Bonn University, Germany | For discussion of results | 01.08.2008 | 09.08.2008 |

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| 22. Mexico City, Mexico | TWAS meeting | 09.11.2008 | 15.11.2008 |
| 23. St John's University, New York, USA | For discussion of results | 15.11.2008 | 16.11.2008 |
| 24. The Abdus Salam International Center for Theor. Physics, Trieste, Italy | Junior Associate member | 03.02.2009 | 30.04.2009 |
| 25. ASSMS, GC University, Lahore, Pakistan | Faculty | 02.10.2009 | 01.12.2009 |
| 26. University of Santiago de Compostela, Spain | Visiting Mathematician | 20.02.2010 | 11.04.2010 |
| 27. Zirve University, Gaziantep, and Harran University Turkey | TUBITAK grant | 15.05.2010 | 31.05.2010 |
| 28. The Abdus Salam International Center for Theor. Physics, Trieste, Italy | Junior Associate member | 02.08.2010 | 30.08.2010 |
| 29. University of Santiago de Compostela, Spain | Visiting Mathematician | 11.01.2011 | 29.03.2011 |
| 30. Department of Applied Mathematics, E.U.I.T. Forestal, Pontevedra, University of Vigo, Spain | Visiting Mathematician | 24.01.2011 | 30.01.2011 |
| 31. Université du Sud Toulon-Var and The Centre de Physique Théorique, Marseille, France | Visiting Mathematician | 10.06.2011 | 08.07.2011 |
| 32. Bonn University, Germany | DFG project, collaboration | 17.10.2011 | 01.12.2011 |
| 33. TWAS, Trieste, Italy | 22th General Meeting | 20.11.2011 | 24.11.2011 |
| 34. IHES, Bures-sur-Yvette, France | Visiting Mathematician | 17.01.2012 | 14.04.2012 |
| 35. University of Santiago de Compostela, Spain | Visiting Mathematician | 22.06.2012 | 20.07.2012 |
| 36. Department of Applied Mathematics, E.U.I.T. Forestal, Pontevedra, University of Vigo, Spain | Visiting Mathematician | 09.07.2012 | 11.07.2012 |
| 37. The Centre de Physique Théorique, Marseille, France | CNRS | 24.09.2012 | 20.12.2012 |
| 38. Université du Sud Toulon-Var and The Centre de Physique Théorique, Marseille, France | Visiting Mathematician | 09.04.2013 | 08.05.2013 |
| 39. University of Santiago de Compostela, Spain | Visiting Mathematician | 28.06.2013 | 26.07.2013 |
| 40. Ruhr University, Bochum, Germany | Visiting Mathematician | 07.10.2013 | 06.12.2013 |

8. My PhD students.

1. Hamraev A.Yu. PhD (Dr.) since 6.04.2006. Thesis title: On behavior of trajectories and other properties of cubic operators.

2. Normatov E.P. PhD (Dr.) since 14.02.2007. Thesis title: On properties of group representation of Cayley tree.
3. Shoyusupov Sh.A. PhD (Dr.) since 07.02.2008. Thesis title: Description of Gibbs measures of non symmetrical models on Cayley tree.
4. Rahmatullaev M.M. PhD (Dr.) since 24.09.2009. Thesis title: On weakly periodic Gibbs measures and ground states for classical models of statistical mechanics on a Cayley tree.
5. Botirov G.I. PhD (Dr.) since 23.12.2010. Thesis title: Description of ground states and Gibbs measures for multicomponent models on a Cayley tree.
6. Zhamilov U.U. PhD (Dr.) since 13.10.2011. Thesis title: On strongly non Volterra and F -quadratic stochastic operators.
7. Ishakulov F.T. Thesis title: Description of generalized harmonic functions on trees.
8. Madg'oziev G'. Thesis title: Description of Gibbs measures for G -Hard-Core models on a Cayley tree.
9. Turaev F. Thesis title: p -adic Gibbs measures of p -adic models on Cayley trees.
10. Murodov Sh. Thesis title: Dynamical systems generated by finite dimensional evolution algebras.
11. Karimov M.M. Thesis title: Dynamical systems on the set of idempotent measures.
12. Khakimov O.N. Thesis title: p -adic Gibbs measures on countable graphs.
13. Khakimov R.M. Thesis title: Limiting Gibbs measures for the lattice systems with hard constraints on their configurations.

9. Fields of research: Algebra; Probability theory and stochastic processes; Dynamical systems and ergodic theory; Functional analysis. Mathematical physics.

My researches carry on the following fields

- I.** Group representations of trees and their properties.
- II.** Gibbs measures of lattice models of statistical mechanics.
- III.** p -adic Gibbs measures in the field of p -adic numbers.
- IV.** Random walks in a random environment on the metric spaces.
- V.** The dynamical systems and processes generated by nonlinear operators.
- VI.** Von Neumann algebras associated with a limit Gibbs state of certain models of quantum statistical mechanics.
- VII.** p -adic dynamical systems.
- VIII.** Harmonic and p -harmonic functions on graphs.
- IX.** Evolution and genetic algebras.
- X.** Percolation theory on graphs.

The main results of my work can be found in publications (see the list of publications)

10. Fields of application:

1. Group theory and graph theory.
2. Theoretical physics, in particular the phase transitions theory.
3. Theory of Markov random fields. Random walks in unordered spaces.
4. p -adic statistical physics.
5. Genetics and population dynamics.

U.A. ROZIKOV'S LIST OF PUBLICATIONS

Preprints, proceedings and abstracts of conferences are not included in this list

2014:

118. Rozikov U.A., Murodov Sh.N. Chain of evolution algebras of “chicken” population. *To appear in Linear Algebra Appl.* 2014.
117. Cassandro M., Merola T., Picco P., Rozikov U.A. One-dimensional Ising models with long range interactions: Cluster expansion, Phase-separating point. *To appear in Commun. Math. Phys.* 2014.
116. Albeverio S., Omirov B.A., Rozikov U.A. Periodic algebras generated by groups. *To appear in Algebra Colloquium.* 2014.
115. Omirov B.A., Rozikov U.A., Tulenbayev K.M. On real chains of evolution algebras. *To appear in Linear Multilinear Alg.* 2014.
114. Casas J.M., Omirov B.A., Rozikov U.A. Solvability criteria for the equation $x^q = a$ in the field of p -adic numbers. *To appear in Bulletin of the Malaysian Math. Sci. Society.* 2014.
113. Rozikov U.A., Sattarov I.A. On a non-linear p -adic dynamical system. *p-Adic Numb., Ultrametric Anal. Appl.* 2014. V.6, No.1, p.54-65.
112. Casas J.M., Ladra M., Omirov B.A., Rozikov U.A. On evolution algebras. *Algebra Colloquium.* 2014. V.21, No.2, p.331-342.
111. Rozikov U.A., Khamraev A.Yu. On construction and a class of non-Volterra cubic stochastic operators. *Nonlinear Dyn. Syst. Theory*, 2014. V.14, No.1, p.92-100.

2013:

110. Rozikov U.A., Murodov Sh.N. Dynamics of two-dimensional evolution algebras. *Lobachevskii Jour. Math.* 2013. V.34, No.4, p.344-358.
109. Gandolfo D., Haydarov F.H., Rozikov U.A., Ruiz J., New phase transitions of the Ising model on Cayley trees. *Jour. Stat. Phys.* 2013. V.153, No.3, p.400-411.
108. Rozikov U.A. A multi-dimensional-time dynamical system. *Qual. Theory Dyn. Syst.* 2013. V.12, No. 2, p. 361 – 375.
107. Eshkabilov Yu., Rozikov U.A., Botirov G., Phase transitions for a model with uncountable set of spin values on a Cayley tree. *Lobachevskii Jour. Math.* 2013. V. 34, No. 3, p. 256 – 263.
106. Rozikov U.A. What are p -adic numbers? What are they used for? *Asia Pacific Math. Newsletter.* 2013. V.3, No.4, p.1 – 6.
105. Rozikov U.A. Gibbs measures on Cayley trees. *World Sci. Publ.* Singapore. 2013, 404 pp.
104. Rozikov U.A., Khakimov R.M. Periodic Gibbs measures for the Potts model on the Cayley tree. *Theor. Math. Phys.* 2013. V.175, No.2, p. 699-709.
103. Casas J.M., Ladra M., Omirov B.A., Rozikov U.A., On nilpotent index and dibaricity of evolution algebras. *Linear Algebra Appl.* 2013. V.439, No.1, p.90-105.

102. Ladra M., Omirov B.A., Rozikov U.A. Classification of p -adic 6-dimensional finite Leibniz algebras by solution of $x^q = a$. *Central European Jour. Math.* 2013. V.11, No.6, p. 1083-1093.
101. Gandolfo D., Rakhmatullaev M.M., Rozikov U.A., Ruiz J., On free energies of the Ising model on the Cayley tree. *Jour. Stat. Phys.* 2013. V. 150, No. 6, p. 1201-1217.
100. Eshkobilov Yu.Kh., Haydarov F.H., Rozikov U.A. Uniqueness of Gibbs measure for models with uncountable set of spin values on a Cayley tree. *Math. Phys. Anal. Geom.* 2013. V.16, No.1, p.1-17.
99. Ladra M., Rozikov U.A. Evolution algebra of a bisexual population. *Jour. Algebra.* 2013. V.378, p.153-172.
98. Rozikov U.A. Gibbs measures on Cayley trees: results and open problems. *Reviews Math. Phys.* 2013. V. 25, No.1, 1330001 (112 pages).
97. Rozikov U.A., Hakimov O.N. p -adic Gibbs measures and Markov random fields on countable graphs. *Theor. Math. Phys.* 2013. V.175, No.1, p.518-525.
96. Rozikov U.A. Evolution operators and algebras of sex linked inheritance. *Asia Pacific Math. Newsletter.* 2013. V.3, No.1, p.6-11.
95. Albeverio S., Rozikov U.A., Sattarov I.A. p -adic (2, 1)-rational dynamical systems. *Jour. Math. Anal. Appl.* 2013. V. 398, No.2, p. 553 – 566.
94. Rozikov U.A., Karimov M.M. Dynamics of linear maps of idempotent measures. *Lobachevskii Jour. Math.* 2013, V. 34, No. 1, p. 20 – 28.

2012:

93. Gandolfo G., Rozikov U.A., Ruiz J. On p -adic Gibbs measures for hard core model on a Cayley tree. *Markov Processes Related Fields.* 2012. V.18, No.4, p.701-720.
92. Rozikov U.A., Khakimov R.M. A condition of uniqueness of weakly periodic Gibbs measure for hard core model. *Theor. Math. Phys.* 2012, V.173, No.1, p. 1377-1386.
91. Eshkobilov Yu.Kh., Haydarov F.H., Rozikov U.A. Non-uniqueness of Gibbs measure for models with uncountable set of spin values on a Cayley tree. *Jour. Stat. Phys.* 2012, V.147, No.4, p. 779-794.
90. Rozikov U.A. Mathematical billiards. *Asia Pacific Math. Newsletter.* 2012, V.2, No. 2, p. 19-23.
89. Rozikov U.A., Zada A. \mathbb{F} -Volterra quadratic stochastic operators: Lyapunov functions, trajectories. *Appl. Math. Inf. Sci.* 2012, V. 6, No. 2., p. 329-335.
88. Mukhamedov F.M., Rozikov U.A. A polynomial p -adic dynamical system. *Theor. Math. Phys.* 2012, V.170, No.3, p.376-383.

2011:

87. Rozikov U.A., Murodov Sh.N. Evolution algebras generated by finite graphs: The period of generators. *Doklady Acad. Nauk Ruz.* 2011. No 6, p. 6-8.
86. Rozikov U.A., Tian J.P. Evolution algebras generated by Gibbs measures. *Lobachevskii Jour. Math.* 2011, V. 32, No. 4, p.270-277.
85. Rozikov U.A. Ground subgroups. *TWMS Jour. Pure Appl. Math.* 2011, V.2, No.2, p.271-278.
84. Rozikov U.A., Zada A. On a class of separable quadratic stochastic operators. *Lobachevskii Jour. Math.* 2011, V. 32, No. 4, p.397-406.

83. Ganikhodzhaev R.N., Mukhamedov F.M., Rozikov U.A. Quadratic stochastic operators and processes: results and open problems. *Inf. Dim. Anal. Quant. Prob. Rel. Fields*. 2011. V.14, No.2, p.279-335.
82. Rozikov U.A., Turaev F.F. p -adic Gibbs states and Markov random fields. *Doklady Acad. Nauk RUz*. 2011. No 2, p. 3-6.
81. Rozikov U.A., Zhamilov U.U. Volterra quadratic stochastic operators of bisexual population. *Ukraine Math. Jour*. 2011, V.63, No.7, p.1136-1153.
80. Akin H., Rozikov U.A., Temir S. A new set of limiting Gibbs measures for the Ising model on a Cayley tree. *Jour. Stat. Phys*. 2011, V. 142, No.2, p.314-321.
79. Rozikov U.A. System of recursive equations for the partition functions of 1D models. *Lobachevskii Jour. Math*. 2011, V. 32, No.2, p.109-113.
78. Rozikov U.A., Madg'oziev G'. Non-uniqueness of Gibbs measure for a model on a Cayley tree. *Theor. Math. Phys*. 2011, V.167, No.2, p.669-680.
77. Casas J.M., Ladra M., Rozikov U.A. A chain of evolution algebras. *Linear Algebra Appl*. 2011, V.435, No.4, p. 852-870.

2010:

76. Rozikov U.A., Ishankulov F.T. Description of p -harmonic functions on a Cayley tree. *Theor. Math. Phys*. 2010, V.162, No.2, p. 222-229.
75. Rozikov U.A., Zada A. On \mathcal{L} -Volterra quadratic stochastic operators. *Inter. Journal Biomath*. 2010, V. 3, No. 2, p. 143 – 159
74. Rozikov U.A., Ishankulov F.T. Description of periodic p -harmonic functions on Cayley tree. *NoDEA. Nonlinear Differential Equations and Appl*. 2010, V.17, No. 2, p.153-160.
73. Rozikov U.A., Nazir S. Separable quadratic stochastic operators. *Lobachevskii Jour. Math*. 2010, V. 31, No. 3, p. 214 – 220.
72. Rozikov U.A., Eshkobilov Yu.Kh. On models with uncountable set of spin values on a Cayley tree: Integral equations. *Math. Phys. Anal. Geom*. 2010, V.13, No. 3, p.275-286.
71. Rozikov U.A., Madg'oziev G. Non uniqueness of Gibbs measure for a model with interaction radius two. *Doklady Acad. Nauk RUz*. 2010. No 4, p. 3-5.

2009:

70. Rozikov U.A., Zhamilov U.U. On trajectories of strongly non-Volterra quadratic operators. *Doklady Acad. Nauk RUz*. 2009. No 1. p. 3-6.
69. Rozikov U.A., Zada A. On \mathcal{L} -Volterra quadratic stochastic operators. (Russian) *Dokl. Akad. Nauk*. 2009, V.424, No.2, p.168-170. Translation in *Doklady Math*. 2009, V.79, No.1, p.32-34.
68. Rozikov U.A., Shamsiddinov N.B. On Non-Volterra Quadratic Stochastic Operators Generated by a Product Measure. *Stoch. Anal. Appl*. 2009, V.27, No.2, p.353-362.
67. Ganikhodjaev N.N., Rozikov U.A. On a Phase Separation Point for One - Dimensional Models. *Siberian Adv. Math*. 2009, V.19, No.2, p. 75-84.
66. Ganikhodjaev N.N., Rozikov U.A. On Ising model with four competing interactions on Cayley tree. *Math. Phys. Anal. Geom*. 2009, V.12, No.2, p. 141-156.

65. Rozikov U.A., Rakhmatullaev M.M. Weakly periodic ground states and Gibbs measures for the Ising model with competing interactions on the Cayley tree. *Theor. Math. Phys.* 2009, V.160, No.3, p. 1291-1299.
64. Rozikov U.A., Zhamilov U.U. On dynamics of strictly non-Volterra quadratic operators on two-dimensional simplex. *Sbornik: Math.* 2009, V. 200, No.9, p.81-94.
- 2008:**
63. Rozikov U.A., Rakhmatullaev M.M. Weak periodic Gibbs measures of Ising model on Cayley trees. *Doklady Acad. Nauk Ruz.* 2008. No.4, p.12-15.
62. Rozikov U.A. A contour method on Cayley trees. *Jour. Stat. Phys.* 2008, V.130, No.2, p.801-813.
61. Rozikov U.A., Zhamilov U.U. On F-quadratic stochastic operators. *Math. Notes.* 2008, V.83, No.4, p.554-559.
60. Rozikov U.A., Botirov G.I. On Potts model with competing interactions. *Doklady Acad. Nauk Ruz.* 2008. No 2. p. 5-8.
59. Ganikhodjaev N.N. Rozikov U.A. Pirogov-Sinai theory with new contours for symmetric models. *Intern. Journ. of Geometric Methods in Modern Phys.* 2008. V.5, No.4, p.537-546.
58. Rozikov U.A., Rakhmatullaev M.M. On weak periodic Gibbs measures of Ising model on Cayley trees. *Theor. Math. Phys.* 2008. V.156, No.2, p.1218-1227.
57. Rozikov U.A., Shoyusupov Sh.A. Fertile three state HC models on Cayley tree. *Theor. Math. Phys.* 2008. V.156. No.3, p.1319-1330.
- 2007:**
56. Mukhamedov F.M., Rozikov U.A., Mendes J.F.F. On contour arguments for the three state Potts model with competing interactions on a semi-infinite Cayley tree. *Jour. Math. Phys.* 2007. V.48, p.013301-14.
55. Botirov G.I., Rozikov U.A. Potts model with competing interactions on the Cayley tree: The contour method. *Theor. Math. Phys.* 2007, V.153, No.1, p.14231433.
54. Rozikov U.A., Shoyusupov Sh.A. On non-translation-invariant Gibbs measures for the SOS model on a Cayley tree. *Doklady Acad. Nauk Ruz.* 2007. No 1. p. 3-6.
53. Rozikov U.A. What is mathematical billiard? *Math. Track* 2007. V.3., p.56-65.
- 2006:**
52. Ganikhodjaev N.N., Rozikov U.A. On Potts model with countable set of spin values on Cayley tree. *Letters in Math. Phys.* 2006, V.75, No. 1, p.99-109.
51. Rozikov U.A. Constructive description of ground states and Gibbs measures for Ising model with two-step interactions on Cayley tree. *Jour. Stat. Phys.* 2006. V.122, No.2, p.217-235.
50. Rozikov U.A. An example of onedimensional phase transition. *Siberian Adv. Math.* 2006, V.16, No.2, p.121-125.
49. Normatov E.P. , Rozikov U.A. Description of harmonic functions using group representations of the Cayley tree. *Math. Notes.* 2006. V.79, No.3-4, p. 399-407.
48. Mukhamedov F.M., Rozikov U.A., Mendes J.F.F. On phase transitions for p -adic Potts model with competing interactions on a Cayley tree. *p -adic Math. Phys.*, 2nd Inter.

Conf. on p -adic Math.Phys., edited by A.Khrennikov, Z.Rakić and I.Volovich. *American Inst. of Phys.* 2006, p.140-150.

47. Rozikov U.A., Shoyusupov Sh.A. Gibbs measures for the SOS model with four states on a Cayley tree. *Theor. Math. Phys.* 2006, V.149, No.1, p.1312-1323.
46. Mukhamedov F.M., Rozikov U.A. On a p -adic dynamical system. *Doklady Acad. Nauk RUz.*, 2006. No.3, p.10-14.
45. Rozikov U.A., Suhov Yu.M. Gibbs measures for SOS model on a Cayley tree. *Inf. Dim. Anal. Quant. Prob. Rel. Fields.* 2006. V.9, No.3, p.471-488.
44. Botirov G.I., Rozikov U.A. On q -component models on Cayley tree: the general case. *Jour. Stat. Mech.: Theory and Exper.* 2006. P10006, 8 pages.
43. Ganikhodjaev N.N., Rozikov U.A. On quadratic stochastic operators generated by Gibbs distributions. *Regular and Chaotic Dynamics.* 2006, V.11, No.4, p.467-473.

2005:

42. Rozikov U.A. On q -component models on Cayley tree: contour method. *Letters in Math. Phys.* 2005, V.71, No. 1, p.27-38.
41. Martin J.B, Rozikov U.A. Suhov Yu.M. A three state hard-core model on a Cayley tree. *Jour. Nonlinear Math. Phys* 2005, V.12, No.3, p.432-448.
40. Mukhamedov F.M., Rozikov U.A. On inhomogeneous p -adic Potts model on a Cayley tree. *Inf. Dim. Anal. Quant. Prob. Rel. Fields* 2005. V.8, No.2, p.277-290.
39. Mukhamedov F.M., Rozikov U.A. On Gibbs measures of models with competing ternary and binary interactions and corresponding von Neumann algebras. II. *Jour. Stat. Phys.* 2005, V.119, No.1/2, p.427-446.

2004:

38. Mukhamedov F.M., Rozikov U.A. On Gibbs measures of models with competing ternary and binary interactions and corresponding von Neumann algebras. *Jour. Stat. Phys.* 2004, V. 114, No. 3/4, p.825-848.
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