



## CURRICULUM VITAE

### 1. Biographical Statement

First name: **Utkir**

Family name: **Rozikov**

Middle name: **Abdulloyevich**

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

**Marital status:** Married. Have three children.

Nationality: Uzbekistan

AFFILIATION Institution: V.I.Romanovskiy Institute of Mathematics.

**Mailing Address:** V.I.Romanovskiy Institute of Mathematics, 9, Universitet str., 100174, Tashkent, Uzbekistan

Phone: 998-71-207-91-39;

E-Mail: [u.rozikov@mathinst.uz](mailto:u.rozikov@mathinst.uz) or [rozikovu@yandex.ru](mailto:rozikovu@yandex.ru)

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:

(a) first 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 - 2019 Leading scientific fellow.

2019 - up to present time Deputy Director of the Institute of Mathematics.

**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, 2022) Fellowship grant received from IHES, Bures-sur-Yvette, France (4 months, 2 months, 3 months and 2 months durations).
10. (2003-2006) NATO Reintegration Grant (3 years duration)
11. (2004) The Royal Society grant in Newton Institute, Cambridge, UK.
12. (2004) Medal "The excellent teacher" of national education of Uzbekistan.
13. (2004-2005) CNR-Fellowship grant received from the Italian Center of National Researches,(6 months duration).
14. (2005-2010) Junior Associate of ICTP, Trieste, Italy.
15. (2007-2012) TWAS young Affiliate, Trieste, Italy.
16. (2009) Prize of TWAS for young scientists.
17. (2010) TUBITAK grant, Zirve university, Turkey (1 month duration).
18. (2010-2012) TWAS Research Grant (1.5 years duration).
19. (2010, 2011, 2012, 2013, 2016,2017) Visiting professor fellowships, University Santiago de Compostela, Spain (2, 3, 1, 1, 2 and 2 months durations).

20. (2011, 2013) Visiting professor fellowship, Universite du Sud Toulon Var and Centre de Physique Theorique, Marseille, France (1 month duration each).
21. (2011) DFG AL 214/36-1 grant, Germany (1 year duration).
22. (2012) TWAS young Alumnus, Trieste, Italy.
23. (2012) CNRS fellowship, Centre de Physique Theorique, Marseille, France (3 months duration).
24. (2013, 2014, 2018) Visiting professor fellowships, Ruhr University, Bochum, Germany (2 months duration each).
25. (2014) Grantee for ICM-2014, Seoul, Korea.
26. (2014) Visiting professor fellowship, University Paris-Est Créteil, Paris, France (1 month duration).
27. (2015) Resident of Aix-Marseille University, Institute for Advanced Study IMéRA, Marseille, France (5 months duration).
28. (2016) London Mathematical Society, Scheme 2 grant, UK (2 weeks duration).
29. (2016) A visiting research grant from the School of Mathematics at Leeds, UK (2 weeks duration).
30. (2016) A visiting fellowship of University of Geneva, Switzerland (2 weeks duration).
31. (2017) A State Prize from the government of Uzbekistan.
32. (2017) Springer Nature TOP Author Award for high publication activity in scientific journals, published by Springer Nature.
33. (2017) A visiting fellowship of University of Granada, Spain (1 month duration).
34. (2018) TWAS member. Trieste, Italy.
35. (2019) The Royal Society grant in Leeds University, Leeds, UK (1 month duration).
36. (2019) Visiting professor under program of LabEx Bezout (ANR-10-LABX-58), University Paris-Est Créteil, Paris, France (1 month duration).
37. (2020) COMSTECH 'Best Research Paper' Award.
38. (2021) Commemorative medal '30 years of Independence of the Republic of Uzbekistan' from the government of Uzbekistan.
39. (2022) Medal of Ministry of Innovative development of Republic of Uzbekistan: 'Leaser of Innovative Ideas'.

**7. Visits :**

Host institution, country:	Reason for visit	From :	To :
1. Institute of Mathematics, Kiev, <b>Ukraine</b>	Conference in Probab. Theory and Math. Stat.	8.06.1999	12.06.1999
2. Institute for information transmission Problems, Moscow, <b>Russia</b>	For discussion of results	19.06.2000	24.06.2000
3. Cambridge, <b>UK</b>	Cambridge colleges hospitality scheme	1.07.2002	31.07.2002
4. Beijing, <b>China</b>	International Congress of Mathematicians	20.08.2002	28.08.2002
5. Inter. Center of Theor. Phys. Trieste, <b>Italy</b>	Visiting Mathematician	16.09.2002	16.12.2002
6. Edinburgh , <b>UK</b>	NATO ASI	07.07.2003	20.07.2003
7. IHES, Bures-sur-Yvette, <b>France</b>	Visiting Mathematician	05.09.2003	26.12.2003
8. Newton Institute Cambridge, <b>UK</b>	IGCSS programme	10.11.2003	25.11.2003
9. The Abdus Salam International Center for Theor. Physics, Trieste, <b>Italy</b>	Visiting Mathematician	08.04.2004	08.07.2004
10. Newton Institute Cambridge, <b>UK</b>	The Royal Society grant	22.08.2004	06.09.2004
11. University Rome 1 Rome, <b>Italy</b>	NATO-CNR fellowship	06.09.2004	22.02.2005
12. Moscow State University <b>Russia</b>	For discussion of results	19.10.2005	21.10.2005
13. University Rome 1 Rome, <b>Italy</b>	Visiting Mathematician	21.10.2005	08.11.2005
14. The Abdus Salam International Center for Theor. Physics, Trieste, <b>Italy</b>	Junior Associate member	22.05.2006	20.08.2006
15. IHES, Bures-sur-Yvette, <b>France</b>	Visiting Mathematician	26.10.2006	26.12.2006
16. SMS, GC University, Lahore, <b>Pakistan</b>	Faculty	21.02.2007	22.05.2007
17. IIUM, Kuantan, <b>Malaysia</b>	Visiting Mathematician	16.07.2007	14.08.2007
18. SMS, GC University, Lahore, <b>Pakistan</b>	Faculty	26.09.2007	25.12.2007
19. TWAS, Trieste, <b>Italy</b>	18th General Meeting	12.11.2007	15.11.2007
20. The Abdus Salam International Center for Theor. Physics, Trieste, <b>Italy</b>	Junior Associate member	23.06.2008	28.08.2008
21. Bonn University, <b>Germany</b>	For discussion of results	01.08.2008	09.08.2008
22. Mexico City, <b>Mexico</b>	TWAS meeting	09.11.2008	15.11.2008

23. St John's University, New York, <b>USA</b>	For discussion of results	15.11.2008	16.11.2008
24. The Abdus Salam International Center for Theor. Physics, Trieste, <b>Italy</b>	Junior Associate member	03.02.2009	30.04.2009
25. ASSMS, GC University, Lahore, <b>Pakistan</b>	Faculty	02.10.2009	01.12.2009
26. University of Santiago , de Compostela <b>Spain</b>	Visiting Mathematician	20.02.2010	11.04.2010
27. Zirve University, Gaziantep, and Harran University <b>Turkey</b>	TUBITAK grant	15.05.2010	31.05.2010
28. The Abdus Salam International Center for Theor. Physics, Trieste, <b>Italy</b>	Junior Associate member	02.08.2010	30.08.2010
29. University of Santiago de Compostela, <b>Spain</b>	Visiting Mathematician	11.01.2011	29.03.2011
30. Department of Applied Math., E.U.I.T. Forestal, Pontevedra, University of Vigo, <b>Spain</b>	Visiting Mathematician	24.01.2011	30.01.2011
31. Université du Sud Toulon-Var, The Centre de Physique Théorique, Marseille, <b>France</b>	Visiting Mathematician	10.06.2011	08.07.2011
32. Bonn University, <b>Germany</b>	DFG project, collaboration	17.10.2011	01.12.2011
33. TWAS, Trieste, <b>Italy</b>	22th General Meeting	20.11.2011	24.11.2011
34. IHES, Bures-sur-Yvette, <b>France</b>	Visiting Mathematician	17.01.2012	14.04.2012
35. University of Santiago de Compostela, <b>Spain</b>	Visiting Mathematician	22.06.2012	20.07.2012
36. Department of Applied Math. E.U.I.T. Forestal, Pontevedra, University of Vigo, <b>Spain</b>	Visiting Mathematician	09.07.2012	11.07.2012
37. The Centre de Physique Théorique, Marseille, <b>France</b>	CNRS	24.09.2012	20.12.2012
38. Université du Sud Toulon-Var, The Centre de Physique Théorique, Marseille, <b>France</b>	Visiting Mathematician	09.04.2013	08.05.2013
39. University of Santiago de Compostela, <b>Spain</b>	Visiting Mathematician	28.06.2013	26.07.2013
40. Ruhr University, Bochum, <b>Germany</b>	Visiting Mathematician	07.10.2013	06.12.2013
41. Seoul, <b>Korea</b>	ICM-2014	11.08.2014	22.08.2014
42. Ruhr University, Bochum, <b>Germany</b>	Visiting Mathematician	02.10.2014	23.11.2014
43. Université Paris Est Créteil, <b>France</b>	Visiting Mathematician	23.11.2014	23.12.2014
44. Aix-Marseille University, IMéRA, <b>France</b>	Resident	23.02.2015	17.07.2015
45. University of Leeds, <b>UK</b>	Visiting Mathematician	29.01.2016	01.03.2016
46. Durham University, <b>UK</b>	Talk in a seminar	01.02.2016	01.02.2016

47. Warwick University, <b>UK</b>	Talk in a seminar	04.02.2016	04.02.2016
48. Institute of Mathematics and Math. Modeling, Almaty, <b>Kazakhstan</b>	Inter. Conference	07.04.2016	09.04.2016
49. University of Geneva, <b>Switzerland</b>	Visiting Mathematician	11.04.2016	24.04.2016
50. University of Santiago de Compostela, <b>Spain</b>	Visiting Mathematician	24.04.2016	10.06.2016
51. University of Santiago de Compostela, <b>Spain</b>	Visiting Mathematician	01.05.2017	29.06.2017
52. Department of Applied Math. E.U.I.T. Forestal, Pontevedra, University of Vigo, <b>Spain</b>	Talk in a seminar	22.06.2017	22.06.2017
53. National Center of Science and Technology Evaluation, Almaty, <b>Kazakhstan</b>	Springer Nature TOP Author Award	05.10.2017	06.10.2017
54. University of Granada, <b>Spain</b>	Visiting Mathematician	02.11.2017	30.11.2017
55. TWAS, Trieste, <b>Italy</b>	28th General Meeting	26.11.2018	30.11.2018
56. Ruhr University, Bochum, <b>Germany</b>	Visiting Mathematician	30.11.2018	24.01.2019
57. University of Leeds, <b>UK</b>	The Royal Society grant	24.01.2019	01.03.2019
58. Université Paris Est Créteil, <b>France</b>	Visiting Mathematician	31.05.2019	29.06.2019
59. IIUM, Kuantan, <b>Malaysia</b>	Visiting Mathematician	07.08.2019	30.08.2019
60. Sichuan University, Chengdu, <b>China</b>	China-Central Asia meeting in Mathematics	15.09.2019	20.09.2019
61. IHES, Bures-sur-Yvette, <b>France</b>	Visiting professor	19.09.2022	21.11.2022

### 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. *Doctor of Sciences* since 26.10.2017. Thesis title:

Weakly periodic Gibbs measures and ground states for the 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. *Doctor of Science, since 27.09.2018.* Thesis title: The asymptotical behavior of trajectories of nonlinear dynamical systems in free and bisexual populations.
7. Khakimov R.M. PhD (Dr.) since 20.07.2017. Thesis title: Limiting Gibbs measures for the lattice systems with a finite set of spin values. *Doctor of Science, since 29.06.2019.* Thesis title: Limiting Gibbs measures for the lattice systems with hard constraints on their configurations.
8. Ishankulov F.T. PhD (Dr.) since 09.02.2018. Thesis title: Description of generalized harmonic functions on trees.
9. Khakimov O.N. PhD (Dr.) since 28.03.2019. Thesis title:  $p$ -adic Gibbs measures on countable graphs. *Doctor of Science, since 29.07.2022.* Thesis title: Applications of infinite dimensional and non-archimedean dynamical systems to the theory of Gibbs measures.
10. Murodov Sh.N. PhD (Dr.) since 28.06.2019. Thesis title: Dynamical systems generated by finite dimensional evolution algebras.
11. Sattarov I.A. PhD (Dr.) since 07.01.2020. Thesis title:  $p$ -adic dynamical systems of rational functions.
12. Usmonov J.B. PhD (Dr.) since 30.07.2021. Thesis title: Discrete-time piecewise smooth dynamical systems.
13. Absalomov A.T. PhD (Dr.) since 10.08.2021. Thesis title: Asymptotical behavior of trajectories generated by gonosomal evolution operator.
14. Norkuziyev B. PhD (Dr.) since 05.07.2022. Thesis title: Evolution algebras and their three-dimensional chains.
15. Shoyimardonov S.K. PhD (Dr.) since 20.12.2022. Thesis title: Discrete-time dynamical systems of ocean ecosystems and epidemiological models.
16. Xudoyorov S. Thesis title: Quadratic dynamical stochastic systems of type  $(\sigma, \mu)$ .
17. Boxonov Z.S. thesis title: A discrete-time dynamical system of mosquito population.
18. Madg'oziev G'. Thesis title: Description of Gibbs measures for  $G$ -Hard-Core models on a Cayley tree.
19. Aliev E.T. Thesis title:  $p$ -adic dynamical systems of proper rational functions.
20. Olimov U.R. Thesis title: Infinite dimensional dynamical systems and their applications.
21. Juraev I.T. Thesis title: Dynamical systems defined on the set of idempotent measures.

**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.

**11. Membership:**

2001-2010 : Member of the Mechanical and Mathematical Council of the Highest Certifying Commission of Uzbekistan.

2010- 2012 : Member of Special Council D015.17.01 to confer academic degrees of Doctor of Philosophy in physics and mathematics (Ph.D.) and Doctor of Sciences in physics and mathematics, Institute of Mathematics, Tashkent, Uzbekistan.

2016- present : Member of Special Council 14.07.2016.FM.01.01 to confer academic degrees of Doctor of Philosophy in physics and mathematics (Ph.D.) and Doctor of Sciences in physics and mathematics, National University of Uzbekistan and Institute of Mathematics, Tashkent, Uzbekistan.

2001-present : Member of Uzbek Mathematical Society

2003-present : Member of American Mathematical Society

2001-present : Reviewer of American Mathematical Society

2003-present : Reviewer of Zentralblatt Math

2018-present : The World Academy of Sciences (TWAS) member.

**12. Editorship:**

- Deputy editor in Chief of *Uzbek Mathematical Journal*;
- Editor of *Communications in Mathematics*;



- Editor of *Scientific reports of Bukhara State University*;
- Editor of *Bulletin of National University of Uzbekistan: Mathematics and Natural Sciences*;
- Editor of *General Mathematics Notes*;
- Editor of *Bulletin of the Institute of Mathematics*, Tashkent.

**13. Information from <https://scholar.google.es> of my account “Utkir Rozikov”** Information on 30 July 2022:

Citations: 4135

h-index: 35    i10-index: 108

The **total sum** of Impact Factors of published (in international journals) papers ([1]-[157], see the list of my publications) is equal to **112.76**

**U.A. ROZIKOV’S LIST OF PUBLICATIONS**

**A) BOOKS:**

9. Rozikov U.A. Gibbs measures in biology and physics: The Potts model. *World Sci. Publ.* Singapore. 2022, 368 pp.
8. Rozikov U.A. Population dynamics: algebraic and probabilistic approach. *World Sci. Publ.* Singapore. 2020, 460 pp.
7. Rozikov U.A., Mamatova N.H. Mathematics and life (Uzbek). *FAN*, Tashkent. 2020. 128 pp.
6. Azamov A., Ganikhodzhaev R.N., Dzhaliilov A., Rozikov U.A. (Eds) Actual problems of modern mathematics. I. Dynamical Systems. (2019), MUMTOZ SO’Z, Tashkent. 48 pp.
5. Rozikov U.A. An introduction to mathematical billiards. *World Sci. Publ.* Singapore. 2019, 224 pp.
4. Ibragimov Z., Levenberg N., Rozikov U., Sadullaev A. (Eds). Algebra, Complex Analysis, and Pluripotential Theory. *Springer Proceedings in Mathematics and Statistics*. 2018, V. 264, Springer Nature Switzerland.
3. Ayupov Sh.A., Ibragimov G., Rozikov U.A. (Eds) Mathematical works of Abdulla Azamov, (2017) Tashkent, Universitet, V.1.
2. Rozikov U.A. Gibbs measures on Cayley trees. *World Sci. Publ.* Singapore. 2013, 404 pp.
1. Azamov A., Rozikov U.A. (Eds) Abstracts of International Conference ”Control and optimization of dynamical systems”, (2009), UzAS, Tashkent.

**B) In International Refereed Journals:**

(IF=Impact Factor Web of Science.)

**2023:**

164. (IF=0.588) Rozikov U. A., Boxonov Z. S., A discrete-time dynamical system of wild mosquito population with Allee effects. *Discontinuity, Nonlinearity, and Complexity*, 2023.
163. (IF=0.370) Rozikov U. A., Shoyimardonov S.K., An application of discrete-time SEIR model to the COVID-19 spread. *Jour. Appl. Nonlin. Dyn.* 2023.
162. (IF=0.790) Rozikov U.A., Sattarov I.A., Tukhtabaev A.M., Periodic points of a  $p$ -adic operator and their  $p$ -adic Gibbs measures. *P-Adic Numbers, Ultrametric Analysis, and Applications*. 2023, Vol. 15, No. 1, pp. 30-44.
161. (IF=0.984) Olimov U.R., Rozikov U.A., Fixed points of an infinite dimensional operator related to Gibbs measures. *Theor. Math. Phys.* 2023. V.214, No.2, p.329-344.
160. (IF=1.361) Rozikov U. A., Haydarov F. H. A HC model with countable set of spin values: uncountable set of Gibbs measures. *Reviews in Math. Phys.*, 2023. V.35, No.1 (17 pages).

**2022:**

159. (IF=0.204) Rozikov U.A., Khakimov R.M., Makhammadaliev, M. T. Periodic Gibbs measures of HC-models with two states on Cayley tree. *Journal of Mathematical Sciences* (Contemporary Mathematics. Fundamental Directions.), 2022. V. 68, No. 1, p. 95-109.
158. (IF=2.214) Haydarov F. H., Rozikov U.A. Invariance property on group representations of the Cayley tree and its applications. *Results in Mathematics*, 2022. V. 77, No. 6, (15 pages).
157. (IF=0.984) Ganikhodjaev N.N., Rozikov U.A., Khatamov N.M., Gibbs measures for the HC-Blum-Capel model with a countable number of states on the Cayley tree. *Theor. Math. Phys.* 2022, V. 211, No. 3, p. 856-865.
156. (IF=1.548) Rozikov U. A. Mirror symmetry of height-periodic gradient Gibbs measures of an SOS model on Cayley trees. *Jour. Stat. Phys.* 2022, V.188, No.3, (16 pages).
155. (IF=0.742) Haydarov F. H., Rozikov U.A., Gradient Gibbs measures of a SOS model on Cayley trees: 4-periodic boundary laws. *Reports on Mathematical Physics*. 2022, V.90, No.1, p.81-101.
154. (IF=0.673) Abdurakhimova Sh.B., Rozikov U.A., Dynamical system of a quadratic stochastic operator with two discontinuity points. *Math. Notes*. 2022. V. 111, No. 5, p. 676-687.

153. (IF=0.984) Rozikov U.A., Rahmatullaev M.M., Khakimov R.M., Periodic Gibbs measures for the Potts model with translation-invariant and periodic external fields on the Cayley tree. *Theor. Math. Phys.* 2022, V.210., No.1, p.135-153.
152. (IF=1.112) Narkuziyev B.A., Rozikov U.A., Classification in chains of three-dimensional real evolution algebras. *Linear and Multilinear Algebra.* 2022. DOI:10.1080/03081087.2022.2025754
151. (IF=0.885) Rozikov U.A., Xudayarov S.S. Quadratic non-stochastic operators: Examples of splitted chaos, *Annals of Functional Analysis*, 2022, V. 13., No.1, 17 pages.
- 2021:**
150. (IF=1.361) Rozikov U.A. Gibbs measures of Potts model on Cayley trees: a survey and applications. *Reviews in Math. Phys.*, 2021, Vol. 33, No. 10, 2130007 (58 pages).
149. (IF=0.600) Rozikov U. A., Shoyimardonov S.K., Varro R. Planktons discrete time dynamical systems. *Nonlinear Studies*, 2021. V. 28, No. 2, p. 585-600.
148. (IF=0.600) Boxonov Z.S., Rozikov U.A., A discrete-time dynamical system of stage-structured wild and sterile mosquito population. *Nonlinear studies*, 2021. V. 28, No. 2, p. 413-425.
147. (IF=0.984) Rozikov U.A. Thermodynamics of interacting systems of DNA molecules. *Theor. Math. Phys.* 2021. V. 206, No. 2, p. 174-184.
146. (IF=1.162) Ganikhodjaev N.N., Pah C.H., Rozikov U.A., Dynamics of quadratic operators generated by China's Five elements philosophy. *Jour. Difference Equations and Applications*, 2021. V. 27, No. 8, p. 1173-1192.
145. (IF=0.370) Boxonov Z.S., Rozikov U.A., Dynamical system of a mosquito population with distinct birth-death rates. *Jour. Appl. Nonlinear Dynamics*. 2021. V. 10, No. 4, p. 809-818.
144. (IF=0.790) Rozikov U.A.,  $p$ -adic dynamical systems of the function  $ax^{-2}$ . *p-Adic Numbers, Ultrametric Anal. Appl.* 2021. V.13, No. 3, p. 239-249.
143. (IF=1.287) Rozikov U.A. Thermodynamics of DNA-RNA renaturation, *Int. J. Geom. Methods Mod. Phys.* 2021, V. 18, No. 6, 2150096 (14 pages).
- 2020:**
142. (IF=0.330) Mamurov B.J., Rozikov U.A., Xudayarov S.S. Quadratic stochastic processes of type  $(\sigma|\mu)$ . *Markov Processes Related Fields*. 2020. V. 26, No.5, p. 915-933.
141. (IF=1.670) Le Ny A., Liao L., Rozikov U.A.  $p$ -adic boundary laws and Markov chains on trees, *Letters in Mathematical Physics*, 2020. V. 110, No. 10, p. 2725-2741.
140. (IF=0.873) Rozikov U.A., Sattarov I.A. Dynamical systems of the  $p$ -adic  $(2, 2)$ -rational functions with two fixed points. *Results in Mathematics*, 2020. V. 75., No. 3, Paper No. 100, 37 pp.

139. (IF=1.019) Rozikov U.A., Usmonov J.B. Dynamics of a population with two equal dominated species. *Qualit. Theory Dyn. Syst.* 2020. V.19., No. 2, Paper No. 62, 19 pp.
138. (IF=1.050) Rozikov U.A., Shoyimardonov S.K. Leslie's prey-predator model in discrete time. *Inter. Jour. Biomath.* 2020. V. 13, No. 6, 2050053 (25 pages)
137. (IF=0.790) Luna A., Rozikov U.A., Sattarov I.A.  $p$ -Adic dynamical systems of  $(3,1)$ -rational functions with unique fixed point. *p-Adic Numbers, Ultrametric Anal. Appl.* 2020. V.12., No. 3, p. 210-230.
136. (IF=0.370) Absalamov A.T., Rozikov U.A. The dynamics of gonosomal evolution operators. *Jour. Appl. Nonlinear Dynamics.* 2020, V.9., No.2, p. 247–257.
- 2019:**
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