

CURRICULUM VITAE



First name: Shavkat

Last name: Ayupov

Birth: September 14, 1952 in Tashkent (Uzbekistan)

Citizenship: Uzbekistan

Marital status: Married, four children.

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Languages:

Russian: native speaker

Uzbek: native speaker

English: fluent

French: intermediate level.

DEGREES

Doctor of Sciences in Physics and Mathematics. Thesis defended at Institute of Mathematics of the Uzbekistan Academy of Sciences on June 12, 1983. Thesis title: “Classification, Representation and Probabilistic aspects of Ordered Jordan Algebras”.

Ph.D. in Physics and Mathematics. Thesis defended at Tashkent State University on June 1977. Thesis title: “Tychonov Rings, their Homomorphisms and Modules”.

M.S. from Tashkent State University, June 1974.

High School Diploma. Tashkent, June 1969.

POSITIONS, TEACHING AND RESEARCH EXPERIENCE

- 2017-*** Director of the Institute of Mathematics of the Uzbekistan Academy of Sciences
- 2012- 2016*** Director of the Institute of Mathematics, National University of the Uzbekistan
- 2006-2012*** Director of the Institute of Mathematics and Information Technologies of the Uzbekistan Academy of Sciences
- 2004-2006*** Director of the Institute of Mathematics of the Uzbekistan Academy of Sciences
- 2003-2004*** Deputy Minister of Higher and Secondary Specialized Education of the Republic of Uzbekistan.
- 1997-2003*** Chairman of Supreme Attestation Commission of the Republic of Uzbekistan
- 1992-1997*** Director, Institute of Mathematics of the Uzbekistan Academy of Sciences
- 1988-*** Head of Algebra and Analysis Dept. in the Institute of Mathematics.
- 1986-1992*** Deputy Director, Institute of Mathematics
- 1979-1985*** Senior researcher in the Institute of Mathematics
- 1983-*** Full professor, Mathematics Department, Tashkent State University. Taught courses in Functional Analysis, Operator Algebras, Abstract algebra, for students and researchers in mathematics.
- 1977-1983*** Assistant Professor, Mathematics department, Tashkent State University. Taught courses in Analysis, Topology, and Functional Analysis for students specializing in Mathematics.
- 1974-1977*** Ph.D. student of the Tashkent State University.

RESEARCH INTERESTS

The field of interests: Functional analysis, Algebra and Topology.

Main research deals with the study of Operator algebras, Jordan and Lie structures on von Neumann algebras, Non commutative integration theory and Quantum Probability. Jordan algebras of self-adjoint operators and Jordan Banach algebras. Theory of ordered Jordan algebras.

Structure of derivations on Operator algebras. Derivations and automorphisms on algebras of unbounded operators on Hilbert spaces, applications in Quantum dynamics. Structure theory of Leibniz algebras and Superalgebras and other non associative algebras. Local derivations and automorphisms of non-associative algebras.

Participation in Conferences and Seminars

Plenary lecture - International Conference “Mathematical Physics, Dynamical Systems and Infinite Dimensional Analysis-2021” (MPDSIDA), Moscow, Russia, 30 June- 9 July, 2021

Plenary talk - International Conference “Problems of Modern Mathematics and its Applications”, Bishkek, Kyrgyz Republic, 16- 20 June, 2021.

Seminar talk - LieJor Online Seminar: Algebras, Representations, and Applications (Sao Paulo, Brazil), April 15, 2021.

Lecturer - SUSTech, International Centre for Mathematics, Shenzhen, China, 4-20 January 2020.

Plenary talk – International Conference on Lie and Jordan Algebras, Sichuan University, Chengdu, China, 6-11 January, 2020.

Plenary talks – Seminar “Non-commutative Probability and Infinite-Dimensional Analysis” Kazan Federal University, Kazan, Russia, November 25-December 2, 2019.

Plenary talk - First China-Central Asia Meeting of Mathematicians, Sichuan University, Chengdu, China, 15-20 September, 2019.

Plenary talk - International Conference on Algebra, SUSTech, Shenzhen, China, 21-24 February 2019.

Organizer: CIMPA research school “Non-associative Algebras and Applications”, Tashkent, September 10-21, 2018.

Organizer: USA-Uzbekistan Collaborative Research in Leibniz Algebras. 2018 Summer International Research Experience for Students. Tashkent, June – August, 2018.

Plenary talk – International Conference “Contemporary Problems in Mathematics and Mathematical Physics, Samarkand, May 14-15, 2018.

Colloquium speaker - Sichuan University, Chengdu (China), April 5, 2018.

Plenary talk – Uzbek - Israel International Conference “Contemporary Problems in Mathematics and Physics, Tashkent, October 6-10, 2017.
Organizer: Scientific Conference dedicated to 120-th anniversary of Academician T. Kary-Niyazov, Tashkent, September 7-8, 2017.

Plenary talk – Second USA-Uzbekistan Conference on Natural Sciences and Mathematics. Urgench State University, Uzbekistan, August 8 - 12, 2017
Organizer: USA-Uzbekistan Collaborative Research in Leibniz Algebras. 2017 Summer International Research Experience for Students. Tashkent, May 30 – August 12, 2017.

Visiting Professor – Korean Institute for Advanced Study (KIAS), Seoul, South Korea, April-May 2017.

Colloquium speaker - California State University Fullerton (USA), March 11, 2016.

Plenary talk - 2nd International Conference on Mathematical Sciences and statistics ICMSS-2016, 26-28 January 2016, Kuala Lumpur, Malaysia.
TWAS General Meeting, Vienna, Austria, November 2015.

International Conference for Energy, Environment and Commercial Civilization, October 22-25, Sichuan University, Chengdu, China.

Plenary talk – International Conference “Actual Problems of Mathematics and Mathematical Modelling”, Almaty, Kazakhstan, 1-5 June, 2015.
TWAS General Meeting, Muscat, Sultanate of Oman, October, 2014.

ICM-2014 (International Congress of Mathematicians), Seoul (Korea), August, 2014

Plenary talk - USA-Uzbekistan Conference on Natural Sciences and Mathematics. California State University Fullerton (USA), May 20-24, 2014
Workshops in ICTP (Trieste, Italy) as a Senior Associate, July-August 2013.
Invited lecturer- International Conference “Problems of Modern Topology and Applications”, Tashkent, May 20-24, 2013;
Invited lecturer- International Conference “Operator Algebras and Related topics”, Tashkent, September, 2012;
Invited lecturer - Day of Algebra, University Putra Malaysia, Kuala-Lumpur, Malaysia- March, 2012;
Workshops in ICTP (Trieste, Italy) as a Senior Associate, July-August 2011.
TWAS General Meeting, Hyderabad, India, October, 2010.
Invited lecturer – International conference “Spectral theory of operators” Baku, Azerbaijan, March 2010.
Workshops in ICTP (Trieste, Italy) as a Senior Associate, July-August 2009.
TWAS General Meeting, Mexico City, November, 2008.
Seminar “Stochastic” University of Bonn (Germany): twice each year, 2002 - 2011;
Invited lecturer – NATO Workshop “Recent Advances in Nonlinear Dynamics and Complex Systems Physics”, Tashkent, November, 2008;
Invited lecturer- International Conference on Research and Education in Mathematics (ICREM 3), Kuala-Lumpur, Malaysia- April, 2007;

UNESCO Conference “Science and Technology for Sustainable Development”, Tehran, Iran, January, 2006

Invited lecturer- International Conference “Operator algebras and Quantum Probability”- September, 2005;

TWAS General Meeting, Trieste, Italy, 2004,

Seminar “Quantum Probability”, University of Roma II: 2004, 1987:

ICM -2002 (Int. Congress of Mathematicians), Beijing (China): 2002;

Int. Conference on Functional Analysis, Valencia (Spain): 2000;

ICM -1998, Berlin (Germany): 1998;

ICM -1994, Zurich (Switzerland):1994;

Int. Conference “Non associative Algebra and its Applications”, Oviedo (Spain):1993.

ICM -1990, Kyoto (Japan): 1990;

Foreign Research Institutes Visited

Institute of Mathematics, National Academy of Sciences of Kyrgyz Republic, 14 – 21 June, 2021.

Southern University of Science and Technology (SUSTech), Shenzhen, China, 04- 20 January 2020, Visiting Professor.

Sichuan University, Chengdu, China, February –March 2019, Visiting Professor.

Kazan Federal University, Kazan, Russia, 25 November -2 December, 2019.

Southern University of Science and Technology (SUSTech), Shenzhen, China, 18 February – 1 March, 2019, Visiting Professor.

Sichuan University, Chengdu, China, March-April, 2018, Visiting Professor.

Korean Institute for Advanced Study (KIAS), Seoul, Korea, April-May, 2017, Visiting Professor.

Sichuan University, Chengdu, China, September-October, 2016, Visiting Professor.

California University San Diego, USA – February-March 2016, Visiting Professor

California State University Fullerton (USA), March 2016.

Institute of Mathematical Sciences (INSPEM), Putra University, Malaysia, 2003, 2007, 2012, 2016.

Institute of Mathematics and Mathematical Modelling, Almaty, Kazakhstan, June 2015.

California University San Diego, USA – May 2014.

ICTP (Trieste, Italy) - 2009, 2011, and 2013 as a Senior Associate of ICTP.

University of Santiago de Compostela, Spain, November- December 2012.

University of Seville, Spain, December 2012.

Institut für Angewandte Mathematik (University of Bonn, Germany) - every year 2002-2011,

Institute of Mathematical Sciences (INSPEM), Putra University, Malaysia, 2003, 2007, 2012;
St. John's University (New York, USA) – 2005, 2008
University of Roma II (Rome) (Italy) – 1987, 2004, 2009
Flinders University (Adelaide, Australia) - 2003,
University of Haute Alsace (Mulhouse, France) – 2001,
Strasbourg University (France) – 1994, 2001,
Mathematisches Forschungs Institut Oberwolfach (Germany) -1988, 1992,
University of Edinburgh, Herriot-Watt University, Oxford University,
Reading University (UK) – 1986.

Membership in Scientific Organizations.

Member of the Uzbekistan Academy of Sciences since 1995;
Member of TWAS (Academy of Sciences for the Developing World) since 2003;
Member of American Mathematical Society since 1980;
Senior Associate of the International Centre for Theoretical Physics (ICTP), 2008-2013.
Member of Mongolian National Academy of Sciences since 2008.
Guest Professor of Sichuan University (Chengdu, China) (2015-2021).

The List of Significant Publications of Prof. Sh. Ayupov (Refereed journals)

1. Extension of traces and type criterions for Jordan algebras of self-adjoint operators. *Math. Zeitschrift*, 181,1982, 253-268.
2. Modular Jordan algebras of self-adjoint operators. *Theor. and Math. Phys.* (Moscow) 33, 1982, N1, 77-82.
3. On a construction of Jordan algebras of measurable operators. *Doklady AN SSSR*, v.267, #3, 1982, 521-524.
4. Types of Jordan algebras of self-adjoint operators and their enveloping von Neumann algebras. *Functional Analysis and its Applications* v.17, #1, 1983, 65-66.
5. Integration of Jordan algebras. *Izvestia AN SSSR* (Moscow), Ser. Mat. V.47, #1, 3-25.
6. Locally measurable operators for JW-algebras and representation of ordered Jordan algebras. *Izvestia AN SSSR* (Moscow) Ser. Mat. V.48, #2, 1984, 211-236.

7. Classification of injective factors. *Functional Analysis and its Appl.* v.18, #3, 1984, 68-69.
8. On existence of Jordan algebras of self-adjoint operators of the given type. *Siberian Math. J.* v.25, #5, 1984, 3-8.
9. JW-factors and anti-automorphisms of von Neumann algebras. *Izvestia AN SSSR*, (Moscow) Ser. Mat., 49, 1985,N1, 211-220.
10. The Radon-Nikodym theorem of weights on semi-finite JBW-algebras. *Math. Zeitschrift*, 1988, 1985, 475-484. (with R. Z. Abdullaev).
11. Compatibility of elements in Jordan algebras. *Mat. Zametki* (Moscow), 37, 1985, N3, 305-312 (with V. N. Zhelyabin).
12. Traces on JW-algebras and enveloping W^* -algebras. *Math. Zeitschrift*, 194, 1987, 15-23.
13. On existence of trace on modular JW-factor. *Uspekhi Mat. Nauk*, Moscow, v.44, #1 (265), 1989, 183-184.
14. Diameters of the state spaces of Jordan Banach Algebras. *Izvestia AN SSSR* (Moscow) Ser. Mat. v.53, #2, 1989, 227-242 (Sh. M. Usmanov coauthor).
15. A new proof of the existence of traces on Jordan operators algebras and real von Neumann algebras. *J. of Functional Analysis*, 84, 1989, N2, 312-321.
16. Symmetry versus facial homogeneity for self-dual cones. *Linear Algebra and its Appl.*, 142, 1990, 83-89 (with B. Iochum and N. Yadgorov).
17. Multiplicative maps of ordered Jordan algebras. *Math. Zametki* (Moscow), 51, 1992, N2, 3-8 (Adizov A., Zhelyabin V. coauthor).
18. On center-valued traces on real operator algebras. *Functional Analysis and its Appl.* 26, 1992, N2, 1-9.
19. Geometry of the state spaces of modular Jordan algebras. *Izvestia Russian Akad. Sci.* v.57, #6, 1993, 199-211 (N. Yadgorov coauthor).
20. Anti-automorphisms of Factors and Lie operator algebras. *Quarterly J. Math. Oxford ser (2)*, 1996, v.46, 129-140
21. Skew commutators and Lie isomorphisms in real von Neumann algebras. *J. of Functional Analysis*, 1996, v.138, N1, 170-187.
22. Commutators and Lie isomorphisms of Skew elements in prime operator algebras. *Communications in Algebra*, 1996, v.24, N4, 1501-1520 (N. Azamov coauthor).
23. Isomorphism between the associative and non-associative L_p -spaces of type II_1 hyperfinite factors. *Math. Scand.* 1996, v.78, 271-285 (S. V. Ferleger and F. A. Sukochev coauthors).
24. On some classes of Nilpotent Leibniz algebras. *Siberian Math. Journal*, 2001, v. 42, #1, 18-29 (B. Omirov coauthor).
25. Representation of skew elements in von Neumann algebras by skew commutators. *Functional Analysis and its Applications*, 2001, v. 35, #3, 75-77 (N. Azamov coauthor).

26. Description of real von Neumann algebras with Abelian skew symmetric part. *Functional Analysis and its Applications*. 2002, v. 36, #2, 75-77.
27. Real W^* -algebras with Abelian symmetric part. Mathematical Notes, 2002, v. 71, #3, 473-476 (A. Rahimov, A. Abduvaitov coauthors)
28. The nilpotency properties of the Leibniz algebra $M_n(\mathbb{C})_D$. *Siberian Mathematical Journal*, vol.45, No 3 , 2004, 399-409 (B.Omirov coauthor).
29. Real AW^* -algebras of type I. *Functional Analysis and it's Appl.* 38(2004), 79-81.
30. On coincidence of types of a real AW^* -algebra and its complexification. *Izvestia RAN*, 68 (2004), №5, 3-12.(S. Albeverio, A.Abduvaitov coauthors).
31. On nilpotent and simple Leibniz algebras. *Communication in Algebra*. 33(2005),159-172, (S. Albeverio, B.A. Omirov coauthors).
32. On real AW^* -algebras. *Methods of. Functional Analysis and Topology*, 11(2005),No2 ,(S. Albeverio, A. Abduvaitov coauthors)
33. On partially ordered real involutory algebras. *Acta Applicandae Mathematicae*, 94(2006),No3,195-214 (S.Albeverio,R.A.Dadakhodjayev coauthors).
34. Cartan subalgebras,weight spaces, and criterion of solvability of finite dimensional Leibniz algebras. *Rev.Mat. Complut.*, 19(2006), no. 1, 183-195 (S. Albeverio, B.A. Omirov coauthors).
35. Derivations of non commutative Arens algebras. *Functional Analysis and its Applications*, (2007), vol. 41, No. 4, 70-72 (K.K.Kudaybergenov).
36. Non commutative Arens algebras and their Derivations. *Journal of Functional Analysis*, 253(2007), No 1, 287-302 (S.Albeverio, K.K.Kudaybergenov coauthors).
37. n-Dimensional filiform Leibniz algebras of length (n-1) and their derivations. *Journal of Algebra* 319 (2008), 2471-2488 (S.Albeverio, B.A.Omirov, A.Kh.Khudoyberdiyev coauthors).
38. Innerness of Derivations on Subalgebras of Measurable Operators. *Lobachevskii Journal of Mathematics*, 2008, Vol. 29, No. 2, pp. 60-67 (K.K.Kudaybergenov coauthor).
39. Derivations on the Algebra of tau-Compact Operators Affiliated with a Type I von Neumann Algebra. *POSITIVITY*, (12) 2008, No. 2, 375-386 (S.Albeverio, K.K.Kudaybergenov coauthors).
40. Derivations on Algebras of Measurable Operators affiliated with type I von Neumann Algebras. *Siberian Advances in Math.* 2008, Vol. 18, No. 2, pp. 86-94 (S.Albeverio, K.K.Kudaybergenov coauthors).
41. On certain properties of the spaces of order-preserving functionals. *Topology and its Applications*, 2008, Vol.155, No.16, 792-799 (A.A.Zaitov coauthor).

42. Structure of derivations on various algebras of measurable operators for type I von Neumann algebras. *Journal of Functional Analysis*, 256 (2009), 2917-2943 (S.Albeverio, K.K.Kudaybergenov coauthors).
43. The classification of filiform Leibniz superalgebras of nilindex $n+m$. *Acta Mathematica Sinica*, 25(2009), No 2, 171-190 (B.A.Omirov, A.Kh.Khudoyberdiyev coauthors).
44. Cartan subalgebras of Leibniz n -algebras. *Communication in Algebra*. 37(2009), No 6, 2080-2096 (S. Albeverio, B.A. Omirov, R.Turdibaev coauthors).
45. Description of Derivations on Algebras of Locally Measurable Operators of Type I. *Extracta Mathematicae* 24(2009), No 1, 1-15 (S.Albeverio, K.K.Kudaybergenov coauthors).
46. The functor of weakly additive tau-smooth functionals and mappings. *Ukraine Math. Journal*, 2009, v. 61, No. 9, 1167-1173 (A.A.Zaitov coauthor).
47. Algebras of unbounded operators over the ring of measurable functions and their derivations and automorphisms. *Methods of Funct. Anal. And Topology*, 2009, v.15, No.2, 177-187 (S.Albeverio, A.Zaitov, J.Ruziev coauthors).
48. Arens Spaces Associated with von Neumann Algebras and Normal States. *POSITIVITY*, 14 (2010) No.1, 105-121 (S.Albeverio, R.Z .Abdullaev coauthors).
49. Derivations on algebras of measurable operators. *Infinite Dimensional Analysis, Quantum Probability and Related Topics*, 13 (2010), No.2, 305-337 (K.Kudaybergenov coauthor).
50. The classification of 4-dimensional p -adic filiform Leibniz algebras. *TWMS Journal of Pure and Applied Mathematics*, v.1, N.2, 2010. 155-162 (T.Kurbanbaev, coauthor).
51. Additive derivations on algebras of measurable operators. *Journal of Operator Theory*, 55:1 (2010), 101-117 (K.K.Kudaybergenov coauthor).
52. Local derivations of the algebra of measurable operators with respect to type I von Neumann algebras. *Uzbek Math. Journal*, 2010, No.3, 9-18 (K.K.Kudaybergenov, B.O.Nurjanov, coauthors).
53. On Jones index for real W^* -algebras. *Eurasian Mathematical Journal*, v.1, No.4, 2010, 5-19 (S.Albeverio, A.Rakhimov, R.Dadakhodjaev coauthors).
54. Additive derivations on generalized Arens algebras. *Lobachevskii Journal of Mathematics*, 32 (2011), No. 3, 194-202 S.Albeverio, R.Z.Abdullaev, K.K.Kudaybergenov coauthors).
55. Local derivations on algebras of measurable operators. *Communications in Contemporary Mathematics*, 13 (2011), 643-657 (S.Albeverio, K.K.Kudaybergenov, B.Nurjanov coauthors).

56. AW*-algebras Which are Enveloping C*-algebras of JC-algebras. *Algebras and Representation Theory*, DOI 10 1007/s10468-011 9308-0 (F.N.Arzikulov).
57. Automorphisms of central extensions of type I von Neumann algebras. *Studia Mathematica*, 207 (1) (2011), 1-17 (S.Albeverio, K.K.Kudaybergenov, R.T.Jumamuratov coauthors).
58. Topologies on central extensions of von Neumann algebras. *Central European Journal of Mathematics*. 10(2) (2012), 656-664 (K.K.Kudaybergenov, R.T.Jumamuratov coauthors).
59. 2-Local derivations and automorphisms of B(H). *Journal of Mathematical Analysis and Applications*, 395, 2012, 15-18 (K.K.Kudaybergenov, coauthor).
60. 2-Local derivations on algebras of locally measurable operators. *Annals of Functional Analysis*, 4 (2013), No.2, 110-117 (K.K.Kudaybergenov, A.Alauatdinov coauthors)..
61. AW*-algebras which are Enveloping C*-algebras of JC-algebras. *Algebras and Representation Theory*, 2013, v.16, No1, 289-301 (F.Arzikulov coauthor).
62. Innerness of continuous derivations on algebras of measurable operators affiliated with finite von Neumann algebras. *Journal of Mathematical Analysis and Applications*, 396, 2013 (K.Kudaybergenov coauthor).
63. 2-Local derivations on matrix algebras over commutative regular algebras. *Linear Algebra and its Applications*, 439, 2013, No. 5, 1294-1311 (K.K.Kudaybergenov, A.Alauatdinov coauthors).
64. Spatiality of derivations on the algebra of tau-compact operators. *Integral Equations and Operator Theory*, 77(2013), no.4, 581-598 (K.Kudaybergenov co-author).
65. 2-Local derivations on semi-finite von Neumann algebras. *Glasgow Mathematical Journal*, 56 (2014), 9-12 (F.Arzikulov coauthor).
66. Local and 2-local derivations on noncommutative Arens algebras. *Mathematica Slovaca*. 64(2014), 423-432 (K.K.Kudaybergenov, B .Nurjanov, A.Alauatdinov).
67. On a certain class of operator algebras and their derivations. *Eurasian Mathematical Journal*, 2014, v.5, No.1, 82-94 , (R.Z.Abdullaev, K.K.Kudaybergenov).
68. 2-Local derivations on von Neumann algebras. *POSITIVITY*, 19(2015), No.3, 445-455 (K.K.Kudaybergenov coauthor).
69. 2-Local derivations on finite-dimensional Lie algebras. *Linear Algebra and its Applications*. 474 (2015), 1-11.
70. (K.K.Kudaybergenov, I.S.Rakhimov coauthors)

71. Leibniz algebras associated with representations of filiform Lie algebras. *Journal of Geometry and Physics*, 98, 2015, 181-195 (L.M.Camacho, A.Kh.Khudoyberdiyev, B.A.Omirov coauthors).
72. Local derivations on finite-dimensional Lie algebras. *Linear Algebra and its Applications*. 493 (2016), 381-398 (K.K.Kudaybergenov coauthor).
73. 2-Local derivations on matrix algebras over semi-prime Banach algebras and on AW*-algebras. IOP Publishing. *Journal of Physics: Conference Series* 697 (2016), 1-11 doi:10.1088/1742-6596/697/012001. (K.K.Kudaybergenov coauthor).
74. Derivations, local and 2-local derivations on algebras of measurable operators. *Contemporary Mathematics, 672 (2016), Topics in Functional Analysis and Algebra* (Russo et.al. Editors), 51-72 (K.K.Kudaybergenov coauthor).
75. A survey on local and 2-local derivations on C*-algebras and von Neumann algebras. *Contemporary Mathematics 672 (2016), Topics in Functional Analysis and Algebra* (Russo et.al. Editors), 73-126 (K.K.Kudaybergenov, A.M. Peralta coauthor).
76. 2-Local automorphisms on finite-dimensional Lie algebras. *Linear Algebra and its Applications*. 507 (2016), 121-131 (K.K.Kudaybergenov coauthor).
77. Reversible AJW-algebras. *Vladicaucasus Math. Journal*, 18 (2016), No.3, 15-21 (F.N.Arzikulov coauthor).
78. Local derivations on measurable operators and commutativity. *European Journal of Mathematics*, 2016, no.2, 1023-1030. DOI 10.1007/s40879-016-0118-0 (K.K.Kudaybergenov coauthor).
79. 2-Local derivations on AW*-algebras of type I. *Lobachevskii Journal of Mathematics*, 38 (2017), no.1, 148-161 (F.N.Arzikulov coauthor).
80. 2-Local derivations on associative and Jordan matrix algebras over cop commutative rings. *Linear Algebra and its Applications*. 522 (2017), 28-50 (F.N.Arzikulov coauthor).
81. 2-Local derivations on matrix algebras and algebras of measurable operators, *Adv. Oper. Theory*, 3 (2017) no. 4, 494-505. (K.K. Kudaybergenov, A.K.Alauadinov coauthors).
82. Jordan counterparts of Rickart and Baer *-algebras.II, *Sao Paolo J.*

- Math. Sci.*, doi.org/10.1007/s40863-017-0083-7 (F.N.Arzikulov coauthor).
83. 2-Local Derivations on algebras of matrix-valued functions on a compact. *Vladicaucausus Math. Journal*, 20 (2018), No.1, 38-49 (F.N.Arzikulov coauthor).
 84. Semisimple Leibniz algebras and their derivations and automorphisms. *Linear and Multilinear Algebra*, doi.org/10.1080/03081087.2019.1567674 (K.K.Kudaybergenov, B.A. Omirov, Kaiming Zhao coauthors).
 85. 2-Local automorphisms on AW*-algebras. *POSITIVITY*, (2019). (K.K.Kudaybergenov, T. Kalandarov coauthors).
 86. Semisimple Leibniz algebras and their derivations and automorphisms. *Linear and Multilinear Algebra*, doi.org/10.1080/03081087.2019.1567674 (K.K.Kudaybergenov, B.A. Omirov, Kaiming Zhao coauthors).
 87. 2-Local derivations on infinite-dimensional Lie algebras. *Journal of Algebra and Its Applications*, DOI: 10.1142/SO219498820501005 (B.Yusupov coauthor).
 88. 2-Local automorphisms of AW*-algebras. *Positivity and Noncommutative Analysis*. Festschrift in Honour of Ben de Pagter on the Occasion of his 65th Birthday, 2019, 1 – 13 (K.K.Kudaybergenov, T. Kalandarov coauthors).
 89. Jordan counterparts of Rickart and Baer *-algebras, II. *São Paulo J. Math. Sci.* Springer, 2019. Vol. 13, pp. 27–38 (F.Arzikulov coauthor).
 90. 2-Local derivations on generalized Witt algebras. *Linear and Multilinear Algebra*, doi.org/10.1080/03081087.2019.1708846 (K.K. Kudaybergenov, B.Yusupov coauthors).
 91. Local and 2-local derivations of p-filiform Leibniz algebras. Itogi Nauki i Techniki. Contemporary Problems of Mathematics 44 (2018), 63-73 (K.K.Kudaybergenov, B.B.Yusupov, coauthors). English Translation: *Journal of Mathematical Sciences* 2020 (245), No. 3, 359-367, DOI 10.1007/s10958-020-04697-1
 92. On projectively inductively closed subfunctors of the functor P of probability measures. Ibid. p. 88-95 (T.F. Dzuraev, coauthor). English Translation: *Journal of Mathematical Sciences* 2020 (245), No. 3, 382-389, DOI 10.1007/s10958-020-04700-9.
 93. Description of 2-local and local derivations on some Lie rings of skew-adjoint matrices. *Linear and Multilinear Algebra*, 68 (2020), No. 4, 764-780 (F.Arzikulov coauthor).
 94. Local and 2-local derivations on Solvable Leibniz Algebras. *International Journal of Algebra and Computation*, DOI: 10.1142/S021819672050037X (A.Kh. Khudayberdiyev, B. Yusupov coauthors).
 95. Infinite Dimensional Central Simple Regular Algebras with Outer Derivations. *Lobachevskii Journal of Mathematics*, 41 (2020), No. 3,

- 326-332 (K.K. Kudaybergenov, coauthor).
96. Local and 2-Local Derivations and Automorphisms on Simple Leibniz Algebras. *Bull. Malays. Math. Sci. Soc.* 43, 2199–2234 (2020). doi.org/10.1007/s40840-019-00799-5 (Kudaybergenov, K. & Omirov coauthors).
 97. Description of 2-local derivations and automorphisms on finite dimensional Jordan algebras. *Linear and Multilinear Algebra*, DOI: 10.1080/03081087.2020.1845595 (F. Arzikulov, N. Umrzakov and O. Nuriddinov, coauthors).
 98. Ring isomorphisms of Murray–von Neumann algebras. *Journal of Functional Analysis*, 280(5):108891, 2021. 280(5):108891 DOI:[10.1016/j.jfa.2020.108891](https://doi.org/10.1016/j.jfa.2020.108891) (K.Kudaybergenov, coauthor).
 99. Local derivations on solvable Lie algebras. *Linear and Multilinear Algebra*, 69 (2021), No. 7, 1286-1301. DOI:10.1080/03081087.2019.1626336 (A.Kh. Khudayberdiyev, coauthor).
 100. Asymptotic Distribution of Hitting Times for Critical Maps of the Circle. *Vestnik Udmurtskogo Universiteta. MATHEMATICS*. 31(2021) no.3 (A. Jalilov coauthor).
 101. Local and 2-local derivations on locally simple Lie algebras. *Journal of Mathematical Sciences*, 2021, vol. (K.Kudaybergenov, B.Yusupov coauthors).
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