

CURRICULUM VITAE (CV) /RESUME



1. Veli Şahmurov (Native)/Veli Shakhmurov (English)
2. Title: Full Professor
3. Foreign languages know: Ingilish, Russian, Turkish languages

Education:

Doktor of Science: Mathematical Analysis in V. Steklov Mathematic Institute, Akademy of Science USSR, Moscow, 1987

Ph.DR: Mathematical Analysis in Academy of Science Az. SSSR, and V. Steklov Mathematic Institute, Akademy of Science USSR, Moscow, 1979

Master's degree: Mathematical Analysis Faculty of Mathematics APU, Azerb. SSSR 1975

Bachelor's degree: Faculty of Mathematics APU, Azerb. SSSR, 1973

4. Institution he is worked/working at:

Title	Discipline	University	Year
Assistant Professor	Mathematic Analysis	Azerbaijan State University Tusy	1981
Associate Professor		Azerbaijan State University of Engineering	1983
Full Professor		Baku State University	1989
Full professor		Akdeniz University, Depart.of Mathematics	1993-1994
Full Professor		Istanbul University, Engineering Faculty	1997-2007
Full		Okan University, Engineering	2007-

Professor		Faculty	2022
Full Professor		Engineering Faculty, Antalya Bilim University	2022-2024

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5. Academic degree:

1990. Full Professor

6. Managed Master Theses:

- 1). Continuous of embedding in Hilbert- valued Sobolev spaces and applications, 1989, Baku State University;
- 2). Compactness of embedding in vector-valued anisotropic spaces and applications, 1989, Baku State University;
- 3). Embedding of anisotropic Sobolev spaces and applications, 1990, Baku State University;
- 4). Normal solvability properties of boundary value problems for abstract elliptic equations, 1990, Baku State University;
- 5). Fredholm properties of boundary value problems for operator- elliptic equations, 1990, Baku State University;
- 6). Fredholm properties of boundary value problems for quasi elliptic equations, 1990, Baku State University;
- 7). Solvability properties of boundary value problems for regular degenerate elliptic equations, 1991, Baku State University;
- 8). Stability properties of initial value problems for parabolic equations, 1991, Baku State University;
- 9). Regularity properties of boundary value problems for singular degenerate elliptic equations, 1992, Baku State University;
- 10). Regularity properties of initial value problems for degenerate parabolic equations, 1992, Baku State University;
- 11). Fredholm properties of boundary value problems for degenerate elliptic equations, 1993, Baku State University;
- 12). Wel-posedeness of initial value problems for degenerate parabolic equations, 1994, Baku State University;
- 13). Aproctimation numbers of embedding operators in vector valued Sobolev spaces, 1995, Baku State University;

- 14). Spectral properties of degenerate differential operators considered in bounded domain, 1995, Baku State University;
- 15). Estimates of resolvents of degenerate elliptic operators in half plane, 1995, Baku State University;
- 16). Embedding theorems in abstract anisotropic spaces and applications, (Hadica Ismail, Istanbul Technical University, 2009);
- 17). Fredholm properties of Agranovich-Vishik type elliptic equations,(Asuman Mert, Istanbul Technical University, 2010).

7. Managed Ph.D. Theses:

- 1). Coercive boundary value problems for abstract differential equations on half plane (Azad Babayev-1985, Baku State University);
- 2). Maximal regular properties of degenerate differential operator equations (Emin Musayev-1986, Baku State University);
- 3). The stability properties of solutions of some nonlinear partial differential equations by means of finite element and Galerkin methods (Gasim Farruh-1992, Baku State University)
- 4). Embedding theorems and application to differential-operator equations (Hummet Musayev-1997, IMM Baku)
- 5). Embedding in abstract Besov spaces and well-posedness of degenerate abstract equations in its (Doctor of Science, Malik Cebrailiv-1997, IMM Baku);
- 6). Maximal regularity properties of Agranovich-Vishik type abstract elliptic equations (Asuman Mert, (Thesis defense phase, Istanbul Technical University).

8. Master and Dissertation:

Supervisor: Prof. S. Yakubov

Title of Master Thesis: Embedding theorems in vektor-valued Sobolev spaces.

Title of Dissertation (Ph.D.): Embedding theorems in abstract Sobolev spaces and applications to elliptic and quasi elliptic differential-operator equations.

Title of Dissertation (Doctor of Science): Embedding theorems in weighted Sobolev spaces and applications to degenerate differential operator equations

I am interested with in the following Scientific fields of Analysis:

1. Abstract harmonic Analysis;
2. Operator-valued singular integral operators and multiplier theorems in abstract function spaces;

3. Embedding and trace theorems in Sobolev-Lions and Besov-Lions type spaces of vector-valued functions;
4. Compactness of embedding and estimates of approximation numbers of embedding operators in abstract function spaces;
5. Separability properties of boundary value problems for operator-differential equations in Banach spaces;
6. Well-posedness of abstract parabolic equations;
7. Maximal regularity properties of linear and nonlinear abstract differential equations with small parameters;
8. Maximal regularity properties of linear and nonlinear degenerate operator-differential equations;
9. Maximal regularity properties of linear and nonlinear convolution elliptic equations in Banach spaces;
10. Carleman estimates and unique continuation results for abstract differential equations;
11. Spectral properties of differential operators;
12. Maximal regularity properties of abstract Stokes operators in L_p spaces;
13. Navier Stokes problems;
14. Boussinesq equations;
15. Nonlinear wave equations
16. Schrödinger equations;
17. Mathematical Medicine, the dynamics of a tumor growth models.

9. Publications:

Total number of publications: 200

Total Citation : 1266, H-index-19

International peer-reviewed Journal Publications (SCI)

- 1 (SCI) Shakhmurov V. B. (with Yakubov S, Y.), Theorems on imbedding in anisotropic spaces of vector-valued functions, *Mathematical Notes.*, 22 (1-2)1977, 657-659.
- 2 (SCI) Shakhmurov V. B., Compactness of embedding in anisotropic vector function spaces and applications, *Doklady Akademii Nauk SSSR*, (6)241,1285-1287, 1978.
- 3 (SCI) Shakhmurov V. B. (with Maksudov F. G.), On the completeness of the system of the eigen and attached vectors of the non local boundary -value problems for the quasi-elliptic partial -differential-operator equations, *Doklady Akademii Nauk SSSR*, 268 (1) 1983, 33-35.

- 4 (SCI) Shakhmurov V. B. (with Maksudov F. G.), The estimations of resolvent for some class of quasi- elliptic partial differential-operator equations, Doklady Akademii Nauk SSSR, 268 (4), 1983, 799-802.
- 5 (SCI) Shakhmurov V. B., The embedding theorems in abstract anisotropic spaces and their applications, Doklady Akademii Nauk SSSR, 281, (5), 1985, 1068-1072.
- 6 (SCI) Shakhmurov V. B., Coercive boundary- value problems for degenerate abstract equations, Doklady Akademii Nauk SSSR, 280 (6), 1985, 1316-1320.
- 7 (SCI) Shakhmurov V. B., Coercive boundary value problems for strongly degenerated differential-operator equations, Doklady Akademii Nauk SSSR, 290 (3) 1986, 37-40.
- 8 (SCI) Shakhmurov V. B., Theorems of embedding compactness of in weighted anisotropic spaces and their applications, Doklady Akademii Nauk SSSR, 291, (6) 1986,1305-1309.
- 9 (SCI) Shakhmurov V. B., The embedding theorems in abstract function spaces and their applications, Mathematics of the USSR-Sbornik, 134(1-2), 1987, 261-276.
- 10 (SCI) Shakhmurov V. B., Embedding theorems and their applications to degenerate equations, Differential Equations, 24, (4) 1988,), 475-482.
- 11 (SCI) Shakhmurov V. B.(with Lizorkin P. I.), Embedding theorem for vector-valued functions. 1, Izvestiya Vushkh Uchebnykh Zavedenie Matematika (1), 1989, 70-79.
- 12 (SCI) Shakhmurov V. B, Coercive boundary value problems for degenerate anisotropic equations, Izvestiya Vushkh Uchebnykh Zavedenie Matematika (8) 1989, 69-78.
- 13 (SCI) Shakhmurov V. B. (with Lizorkin P. I.),Embedding theorem for vector-valued functions. 2, Izvestiya Vushkh Uchebnykh Zavedenie Matematika (2), 1989, 47-54.
- 14 (SCI) Shakhmurov V. B.(with Babaev A. A.), Coercive problems for equations with parameters, Doklady Akademii Nauk SSSR, 315 (1), 1990, 799-802.
- 15 (SCI) Shakhmurov V. B., Embedding theorems and maximal regular differential operator equations in Banach-valued function spaces, Journal of Inequalities and Applications, (4) 2005, 605-620.
- 16 (SCI) Shakhmurov V. B., Coercive boundary value problems for regular degenerate differential-operator equations, Journal of Math. Anal. Appl., 292, 2004 (2), 605-620.
- 17 (SCI) Shakhmurov V. B. (with Shahmurova A. M.), Fractional Time-Varying Energy Distributions of Biological signals, Applicable Analysis, (85) 2005, 539-553.
- 18 (SCI) Shakhmurov V. B. (with Agarwal R., Bohner M.), Maximal regular boundary value problems in Banach-valued weighted spaces, Boundary value problems, (1)2005, 9-42.
- 19 Shakhmurov V. B., Maximal regular boundary value problems for differential operator equations in Banach-valued function spaces, International journal of Mathematics and

Mathematical Sciences, v. 2006, (2006), 1-26.

- 20 (SCI) Shakhmurov V. B., Embedding theorems in Banach-valued B-spaces and maximal B-regular differential operator equations, *Journal of Inequalities and Applications*, v. 2006, 1-22.
- 21 (SCI) Shakhmurov V. B., Separable anisotropic differential operators and applications, *J. Math. Anal. Appl.* 2006, 327(2), 1182-1201.
- 22 (SCI) Shakhmurov V. B. (with Agarwal R., Bohner M.), Linear and nonlinear nonlocal boundary value problems for differential-operator equations, *Applicable analysis* 2006, 85 (6-7), 701-716.
- 23 (SCI) Shakhmurov V. B., Embedding and maximal regular differential operators in Sobolev-Lions spaces, *Acta Mathematica Sinica*, 22(5) 2006, 1493-1508.
- 24 (SCI) Shakhmurov V. B., Nonlinear abstract boundary value problems in vector-valued function spaces and applications, *Nonlinear Analysis Series A: Theory, Method & Applications*, v. 67(3) 2006, 745-762.
- 25 (SCI) Shakhmurov V. B., Maximal B-regular boundary value problems with parameters, *J. Math. Anal. Appl.* 320, (2006), 1-19.
- 26 (SCI) Shakhmurov V. B., Degenerate differential operators with parameters, *Abstract and Applied Analysis*, 2007, V. 2006, 1-27
- 27 (SCI) Shakhmurov V. B., Embedding theorems in B-spaces and applications, *Chinese Annals of Mathematics, Ser. B*, v.29, no 1, 2008.
- 28 (SCI) Shakhmurov V. B. (with Agarwal R., O' Regan, D.), Separable anisotropic differential operators in weighted abstract spaces and applications, *J. Math. Anal. Appl.* 2008, 338, 970-983.
- 29 (SCI) Shakhmurov V. B., Carleman estimates and unique continuation property for the anisotropic differential operator equations, *Science in China, Ser. A: Mathematics*, 2008, v. 51, no 7, 1215-1231.
- 30 (SCI) Shakhmurov V. B. (with Shakhmurov R.), Maximal B-regular integro-differential equations, *Chinese Annals of Mathematics*, 30B(1), 2008, 39-50.
- 31 (SCI) Shakhmurov V. B., Embedding and separable differential operators in Sobolev-Lions type spaces, *Mathematical Notes*, 2008, v. 84, no 6, 906-926.
- 32 (SCI) Shakhmurov V. B. (with Agarwal R.), Linear and nonlinear Degenerate Boundary Value Problems in Besov Spaces, *Mathematical and Computer Modelling*, V. 49, Issues 5-6, 2009, 1244-1259
- 33 (SCI) Shakhmurov V. B. (with) Agarwal R.), Multipoint problems for degenerate abstract differential equations, *Acta Mathematica Hungarica*, 123 (1-2), 2009, 65-89.
- 34 (SCI) Shakhmurov V. B. (with Agarwal R., O' Regan, D.), B-Separable boundary value problems in Banach-valued function spaces, *Applied Mathematics and*

Computation, V. 210, Issue 1, 2009, P. 48-63.

- 35 (SCI) Shakhmurov V. B.(with Shahmurova A.), Nonlinear abstract boundary value problems atmospheric dispersion of pollutants, *Nonlinear Analysis, Real World Applications*, v.11 (2) 2010, 932-951. DOI: [10.1016/j.nonrwa.2009.01.037](https://doi.org/10.1016/j.nonrwa.2009.01.037)
- 36 (SCI) Shakhmurov V. B. (with) A. Favini and Ya. Yakubov), Regular boundary value problems for complete second order elliptic differential-operator equations in UMD Banach spaces, *Semigroup form*, V. 79 (1), 2009, 22-54
- 37 (SCI) Shakhmurov V. B. (with R. Shahmurov), Sectorial operators with convolution term, *Mathematical Inequalities and Applications*, V.13 no.2, 2010, 387-404
- 38 (SCI) Shakhmurov V. B, Compact embedding in Besov spaces and B-separable elliptic operators, *Science in Chine, Series A: Mathematics*, V.53, no 4, 1067-1084, 2010.
- 39 (SCI) Shakhmurov V. B. (with Agarwal R., O' Regan, D.), Higher order nonlinear degenerate differential operator equations, *Applied Mathematics Letter*, v.22(10), 2009, 1556-1561
- 40 (SCI) Shakhmurov V. B, Abstract capacity of regions and compact embedding with applications, *Acta Mathematica Scientia*, V.31, no1, 2011, 49-67.
- 41 (SCI) Shakhmurov V. B.(with Agarwal R., O' Regan, D.), Uniform separable differential operators with parameters, *Journal of Franklin Institute*, 2010, V. 347 no1, 2-16.
- 42 (SCI) Shakhmurov V. B., Maximal regular abstract elliptic equations and applications, *Siberian Mathematical Journal*, V.51, No 5, 935-948, 2010
- 43 (SCI) Shakhmurov V. B., Linear and nonlinear abstract equations with parameters, *Nonlinear Analysis, Theory, Method and Applications*, 2010, v. 73, 2383-2397
- 44 (SCI) Shakhmurov V. B, Regular degenerate separable differential operators and applications, *Potential Analysis*, 2011, v.35, no.3, 201-212
- 45 (SCI) Shakhmurov V. B., Separable anisotropic elliptic operators and applications, *Acta Mathematica Hungary*, 131, (3), 2011, 208-229.
- 46 (SCI) Shakhmurov V. B. (with Agarwal R., O' Regan, D.), Degenerate anisotropic differential operators and applications, *Boundary value problems*, 2011 V. 2011, 27p.
- 47 (SCI) Shakhmurov V.B., Anisotropic elliptic equations with VMO coefficients, *Applied Mathematics and Computation*, 2011, 218, 1057-1062 .
- 48 (SCI) Shakhmurov V. B. (with Sahmurova), Singular perturbation degenerate problems occurring in atmospheric dispersion of pollutants, *Applied Mathematics and Computation* 218 (3), 1052-1056, 2011.
- 49 (SCI) Shakhmurov V. B. (with Sahmurova, A.), Degenerate anisotropic parabolic problems occurring atmospheric dispersion of pollutants, *Proceeding AIP*, 1389, 2011,

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- 50 (SCI) Shakhmurov V.B., Free boundary value problems for abstract elliptic equations and applications, *Chinese Annals of Mathematics, Ser.B*, 2011 v. 32 (5), 749-770.
- 51 (SCI) Shakhmurov V.B., Carleman estimates and unique continuation for abstract elliptic equations, *Proceeding AIP*, 1389, 632-634, 2011.
- 52 (SCI) Shakhmurov V. B, Estimates of approximation numbers for embedding operators and applications, *Acta Mathematica Sinica, English Series*, 2012, V. 28, (9), 1883-1896. doi:10.1007/s10114-012-9547-y
- 53 (SCI) Shakhmurov V.B ., Embedding operators in vector-valued weighted Besov spaces and applications, *Journal of Function spaces and Applications*, 2012 v. 2012. DOI :<http://dx.doi.org/10.1155/2012/819321>
- 54 (SCI) Shakhmurov) V. B , Optimal regular differential operators with VMO Coefficients, *AIP Conf. Pr.* 1504, 2012, 1269-1274.
- 55 (SCI) Shakhmurov V. B., Carleman estimates and unique continuation for abstract elliptic equations, *Boundary Value Problems*, 2012, 2012-46, <https://doi.org/10.1186/1687-2770-2012-46>.
- 56 (SCI) Shakhmurov V. B.(with A. Sahmurova), Parabolic problems with parameters arising in evolution model for phytromediation, *AIP Conf. Pr.* 1504, 2012, 1265-1268.
- 57 (SCI) Shakhmurov V.B. (with Aida Sahmurova) Singular degenerate problems occurring in atmospheric dispersion of pollutants, *Operator Theory: Advances and applications*, v. 236, 2014, 455-461.
- 58 (SCI) Shakhmurov V.B., (with Aida Sahmurova), Parabolic Problems with Parameter Occuring in Environmental Engineering, *AIP*, 2012 V.1470,
- 59 (SCI) Shakhmurov V. B, Sahmurova A., Separable Convolution Equations Occurring in Atmospheric Dispersion of Pollutants, *AIP*, 2012, Volume: 1479.
- 60 (SCI) Shakhmurov V. B., Parameter dependent Navier-Stokes like problem, *AIP*, v. 1470, p. 259-261, 2013.
- 61 (SCI) Shakhmurov V. B., Carleman estimates and unique continuation property for elliptic operators, *Mathematical Inequalities & Applications*, V.16 (3), 2013, 873-885. DOI: 10.1063/1.3636810
- 62 (SCI) Shakhmurov V. B., B-Separable Anisotropic Convolution Operators and Applications, *Georgian Mathematical Journal*, 2013, V. 20, no1, 129-149. DOI:[10.1515/gmj-2013-0005](https://doi.org/10.1515/gmj-2013-0005)
- 63 (SCI) Shakhmurov V.B., Singular degenerate boundary value problems and applications, *Applied Mathematic Letter*, 2013 (26), 87-90. [10.1016/j.aml.2012.03.037](https://doi.org/10.1016/j.aml.2012.03.037)
- 64 (SCI) Shakhmurov V.B., Linear and nonlinear abstract elliptic equations with VMO coefficients and applications, *Fixed Point Theory and Applications* 2013, 2013: 6.

DOI:[10.1186/1687-1812-2013-6](https://doi.org/10.1186/1687-1812-2013-6)

- 65 (SCI) Shakhmurov V.B., Nonlocal Navier-Stokes problem with small parameter, *Boundary Value Problems*, 2013, V. 2013-107. DOI:[10.1186/1687-2770-2013-107](https://doi.org/10.1186/1687-2770-2013-107)
- 66 (SCI) Shakhmurov V.B., Optimal regular differential operators with variable coefficients and applications, *Fixed Point Theory and Applications*, 2013, 2013: 42. DOI:[10.1186/1687-1812-2013-42](https://doi.org/10.1186/1687-1812-2013-42)
- 67 (SCI) Shakhmurov V.B. (with A. Sahmurova), Singular degenerate problems occurring in biosorption process, *Boundary Value Problems*, 2013, V. 2013.30 (1).
- 68 (SCI) Shakhmurov V.B. (with A. Sahmurova), Abstract parabolic problems with parameter and application, *Applied mathematics and Computation*, 2013, V. 219, (17), 9561-9571). DOI:[10.1186/1687-2770-2013-30](https://doi.org/10.1186/1687-2770-2013-30)
- 69 (SCI) Shakhmurov V.B. (with I. Ekinici), Linear and nonlinear convolution elliptic equations, *Boundary Value Problems*, 2013, 2013:211, DOI:[10.1186/1687-1812-2013-6](https://doi.org/10.1186/1687-1812-2013-6)
- 70 (SCI) Shakhmurov V.B., Parameter dependent Stokes problems in vector-valued spaces and applications, *Boundary Value Problems*, 2013, V. 2013-172. DOI:[10.1186/1687-2770-2013-172](https://doi.org/10.1186/1687-2770-2013-172)
- 71 (SCI) Shakhmurov V.B. (with A. Sahmurova), Abstract elliptic operators appearing in atmospheric dispersion, *Boundary Value Problems*, 2014 V.2014:43. DOI :[10.1186/1687-2770-2014-116](https://doi.org/10.1186/1687-2770-2014-116).
- 72 (SCI) Shakhmurov V.B., Stokes operators with variable coefficients, *Boundary Value Problems* 2014, V. 2014:86 DOI: [10.1186/1687-2770-2014-86](https://doi.org/10.1186/1687-2770-2014-86)
- 73 (SCI) Shakhmurov V.B., Anisotropic differential operators with parameters and applications, *Ukrainian Mathematical Journal*, 2014, no.7, p. 985-1002. □ DOI <https://doi.org/10.1007/s11253-014-0997-5>.
- 74 (SCI) Shakhmurov V.B. (with A.Ozer) Maximal regularity properties of Agranovich-Vishik type abstract elliptic operators in the half-plane, *Journal of inequalities and applications*, 2014, V.2014:233. □ DOI:[10.1186/1029-242x-2014-233](https://doi.org/10.1186/1029-242x-2014-233)
- 75 (SCI) Shakhmurov V.B., Stokes equations with small parameters in half plane, *Computers and Mathematics with Applications*, 67, 2014, 91-115. DOI: [10.1016/j.camwa.2013.10.016](https://doi.org/10.1016/j.camwa.2013.10.016)
- 76 (SCI) Shakhmurov V.B., Singular degenerate differential operators and applications, *Math.Slovaca* 65(2015), No.6, 1-24. DOI: <https://doi.org/10.1515/ms-2015-0096>
- 77 (SCI) Shakhmurov V.B., Separable convolution-elliptic operators with parameters, *Form . Math.* 2015, 27(6), 2637-2660. DOI: <https://doi.org/10.1515/forum-2013-0101>
- 78 (SCI) Shakhmurov V.B., *Linear and nonlinear abstract differential equations of high order*, *Open mathematics (Cent.Euro.Math.)* (2015) 13, 471-488. DOI: [10.1515/math-2015-0044](https://doi.org/10.1515/math-2015-0044)
- 79 (SCI) Shakhmurov V.B., Nonlocal abstract Navier-Stokes problem, *Nonlinear Analysis, Real World Applications*, 2015, 26, 15-43. DOI: [10.1016/j.nonrwa.2015.03.011](https://doi.org/10.1016/j.nonrwa.2015.03.011)

- 80 (SCI) V. B. Shakhmurov, Embedding operators of Sobolev spaces with variable exponents and applications, *Analysis Mathematica*, 41(2015), 273--297. DOI: [10.1007/s10476-015-0303-2](https://doi.org/10.1007/s10476-015-0303-2)
- 81 (SCI) Shakhmurov V.B.(with H. Musayev), Separability properties of convolution-differential operator equations in weighted L_p spaces, *Appl. Math.* 2015, 14(2). DOI <https://doi.org/10.1007/s11253-018-1458-3>
- 82 (SCI) Shakhmurov V.B., Abstract elliptic equations with VMO coefficients in half plane, *Mediterranean Journal of Mathematics*, 2015, V.25, 1-21. □ DOI <https://doi.org/10.1007/s00009-015-0599-y>
- 83 (SCI) Veli Shakhmurov, Abstract elliptic equations with integral boundary conditions and applications, *Chinese Annals of Mathematics*, 201(3B), 2016, 1-18. DOI: [10.1007/s11401-016-0948-6](https://doi.org/10.1007/s11401-016-0948-6)
- 84 (SCI) Shakhmurov V.B., Separable differential operators and applications, *Journal of Moscow Math. Soc.*, 16 (2), 2016, 299-321. DOI: [10.1016/j.jmaa.2006.05.007](https://doi.org/10.1016/j.jmaa.2006.05.007)
- 85 (SCI) Shakhmurov V.B., Linear and nonlinear degenerate abstract differential equations with small parameters, *Banach journal mathematical analysis*, 10 (2016)(1), 147-168. DOI: [10.1215/17358787-3345071](https://doi.org/10.1215/17358787-3345071)
- 86 (SCI) Shakhmurov V. B. (with H. Musayev), Regularity properties of degenerate convolution-elliptic equations, *Boundary Value Problems*, 2016, 2016-50. □ DOI <https://doi.org/10.1186/s13661-016-0555-1>
- 87 (SCI) Shakhmurov V.B., The Cauchy problem for generalized abstract Boussinesq equations, *Dynamic systems and applications*, 25, (2016), 109-122. □ DOI <https://doi.org/10.1007/s13324-018-0265-1>
- 88 (SCI) Shakhmurov V.B., Nonlocal problems for Boussinesq equations, *Nonlinear Analysis TMA*, 142 (2016) 134-151. DOI <https://doi.org/10.1007/s13324-018-0265-1>
- 89 (SCI) Shakhmurov V.B.(with A. Sakhmurova), Degenerate parabolic equations appearing in atmospheric dispersion of pollutants, *Electronic Journal of Qualitative Theory of Differential Equations (EJQTDE)*, 119(2017), 1-16. □ DOI: [10.14232/ejqtde.2016.1.119](https://doi.org/10.14232/ejqtde.2016.1.119)
- 90 (SCI) Shakhmurov V.B. (with H. Musayev), Maximal regular convolution-differential equations in weighted Besov Spaces, *Appl. Comput. Math.*, v.16, N.2, 2017. MR3699485 34G10 (45J05)
- 91 (SCI) Shakhmurov V.B.,(with A. Sakhmurova), Mixed problems for degenerate abstract parabolic equations and applications, *Carpathian Journal of Mathematics* 34(2)(2018), 247-254. [arXiv:1707.01374](https://arxiv.org/abs/1707.01374)
- 92 (SCI) Shakhmurov V.B. (with H. Musayev) , Maximal regular convolution elliptic equations in weighted Besov Spaces, *Ukr. Math. Journal*, (2018) (69), 1607-1630. DOI <https://doi.org/10.1007/s11253-018-1458-3>
- 93 (SCI) Shakhmurov V.B., Regularity properties of Schrödinger equations in vector-valued spaces and applications, *Forum Mathematics, Forum Mathematicum* 31 (1), (2018) 149-166 DOI: <https://doi.org/10.1515/forum-2018-0083>.
- 94 (SCI) Shakhmurov V.B.,(with A. Ragusa), Embedding of vector-valued Morrey spaces and separable differential operators, *Bulletin of Mathematical Sciences* 2018, <https://doi.org/10.1007/s13373-018-0129->

- 95 Shakhmurov V.B., Separability properties of singular degenerate abstract differential operators and applications, *Rocky Mountain J. Math.* V. 49(5) (2019), 1647-1666
DOI: [10.1216/RMJ-2019-49-5-1647](https://doi.org/10.1216/RMJ-2019-49-5-1647)
96. (SCI) Shakhmurov V.B. (with R. Shahmurov), The Cauchy problem for Boussinesq equations with general elliptic part, *Journal Analysis and Math. Physis, Analysis and Mathematical Physics* (2019) 9:1689–1709. DOI <https://doi.org/10.1007/s13324-018-0265-1>
- 97.
- (SCI) Shakhmurov V.B., Nonlocal problems for abstract differential equations and applications, *Moscow Mathematical Journal* (20)1, 2020, 1-26.
- 98 (SCI) Shakhmurov V.B, Linear and nonlinear degenerate differential operators and applications, *Nonlinear Analysis* 191 (2020) 1116332019.
- 99 (SCI) Shakhmurov V. B., Fractional differential operators in vector-valued spaces and applications, *Inequalities & Applications*, 2(23) (2020), 521–538.
- (SCI) Shakhmurov V.B., Hardy type unique continuation properties for abstract Schrödinger equations and applications, *Electronic journal of qualitative theory of differential equations*, *Electron. J. Qual. Theory Differ. Equ.* 2019, No. 97, 27. DOI: <https://doi.org/10.14232/ejqtde.2019.1.97>.
101. (SCI) Shakhmurov V.B., Nonlocal fractional differential equations and applications, *Complex analysis and Operator theory*, 14 (49) (2020).
102. (ESCI) Shakhmurov V.B (with M. Bohner) Separable differential operators with parameters, *Differential Equations and Dynamical Systems*, 2020(36).
103. (SCI) Shakhmurov V.B. Fractional abstract differential equations and applications, *Bulletin of the Malaysian Mathematical Sciences Society*, 2020,
DOI: [10.1007/s40840-020-00977-w](https://doi.org/10.1007/s40840-020-00977-w).
104. (SCI) Shakhmurov V.B, *A Navier-Stokes type problem with high order elliptic operator and applications*, *J. Mathematics* 2020, V.8 (12), [10.3390/math8122256](https://doi.org/10.3390/math8122256) .
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9)	1706.00812	math.AP	Operator-valued multipliers in vector-valued weighted Besov spaces and applications		Y

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11)	1706.00810	math.AP	Singular perturbation for abstract elliptic equations and application	 	Y
	1706.00809	1706.00809	1706.00809	 	Y
13)	1706.00808	math.FA	Multipliers and embedding operators with application to abstract differential equations	 	Y
14)	1706.00807	math.AP	Hardy's uncertainty principle and unique continuation properties for abstract Schrödinger equations	 	Y
15)	1706.00806	math.AP	Morgan type uncertainty principle and unique continuation properties for abstract Schrödinger equations	 	Y
16)	1706.00805	math.AP	Separability properties of singular degenerate abstract differential operators and applications	 	Y
17)	1706.00803	math.AP	Pseudo-differential operators in vector-valued spaces and applications	 	Y
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66. Veli Shahmurov, QUALITY PROPERTIES OF LINEAR AND NONLINEAR ABSTRACT SCHRÖDINGER EQUATIONS AND APPLICATIONS, 4. INTERNATIONAL PALANDOKEN SCIENTIFIC STUDIES CONGRESS 28-29 APRIL 2022/ERZURUM.
67. Veli Shahmurov, Kinetic L^p -separability for nonlocal Kolmogorov equations and application, International Modern Scientific research Congres-3, May 06-08, 2022, Istanbul Gedik University, Istanbul, Turkey.
68. Veli Shahmurov, The L^p -regularity properties of integral problems for wave equations " that you have sent to the " 2. INTERNATIONAL MEDITERRANEAN SCIENTIFIC RESEARCH AND INNOVATION CONGRESS, 30-31 JULY 2022 KIBRIS.
69. Veli Shahmurov, The nonlocal abstract Schrodinger equations and applications, ISFAS-2022, 19-21 Haziran, Istanbul 2022.
70. Veli Shahmurov, Quality properties of multipoint problem for Schrodinger equations and applications, **International Mathematical Conference on Functional Analysis in Interdisciplinary Applications 2023 (FAIA 2023)**, 6-9 10.2023, Antalya.
71. Veli Shahmurov, **International Mathematical Conference on Functional Analysis in Interdisciplinary Applications 2023 (FAIA 2023)** The dynamics of nonlocal cancer tumor growth model), 6-9 10.2023, Antalya.
72. Veli Shakhmurov, L^p -Coercive properties of nonlocal Ginzburg-Landau type equations, **11. INTERNATIONAL GAP SUMMIT SCIENTIFIC RESEARCH CONGRESS, December 15-17, 2023, Gaziantep, Turkiye.**
73. Veli Shakhmurov, The nonlinear dynamics of the cancer tumor growth model and application, **11. INTERNATIONAL GAP SUMMIT SCIENTIFIC RESEARCH CONGRESS, December 15-17, 2023, Gaziantep, Turkiye.**
- 74. Veli Shakhmurov, Nonlocal problem for Schrödinger type equations with high order elliptic part, 15th China to Adriatic Turkish World International Scientific Research Congress to be held in ANAS Central Library of Science, Baku, Azerbaijan during January 7-9, 2024.**
- 75. Veli Shakhmurov, The evolution of a Michaelis-Menten type dynamics of tumor growth model, 15th China to Adriatic Turkish World International Scientific Research Congress to be held in ANAS Central Library of Science, Baku, Azerbaijan during January 7-9, 2024.**

11. Book's / Book Chapter's

1. Linear Algebra 1999, Istanbul, Papatya
2. Applications of Linear Algebra 2000, İstanbul, Papatya.

3. Linear Algebra and Applications 2009, Istanbul Okan University.
4. Modern Linear Algebra and Applications, 2014, Istanbul Okan University
5. Linear Algebra and application, Lambert Academic Publishing 2012 USA.

12. Projects

Projects in Istanbul University:

- | | | |
|----|--|--------------------|
| 1. | Multi wavelets transformations and applications | BYP-55/23012003 |
| 2 | Boundary value problems for regular degenerate differential Operator equations | BYP-537/24112004 |
| 3 | Embedding theorems in Banach-valued function spaces | UDP-227/18022004 |
| 4 | Regular and singular degenerate Boundary value problems in Banach- valued spaces. | UDP-543/17062005 |
| 5 | Embedding operators and Maximal regular differential operators. | BYP-7941710022005 |
| 6 | Separable anisotropic differential operators with parameters and applications | UDP-748/11052006 |
| 7 | Maximal B-regular boundary value problems with parameters | BYP-39/30102006 |
| 8. | Separable anisotropic differential operators and applications | BYP-1133/2.05.2007 |
| 9 | Embedding and maximal regular differential operators in Sobolev-Lions spaces | BYP-1134/2.05.2007 |
| 10 | Nonlinear abstract boundary value problems in vector-valued function spaces and applications | BYP-1135/2.05.2007 |

13. Memberships in Scientific and Professional Organizations:

Editor of the following journals:

1. Boundary Value Problems, USA, Springer (2008-2020).
2. Journal of abstract differential equations and applications, USA, Math. Research. Publ.
3. Mathematics and statistics, USA, Horizon Research Publishing;
4. Applied Mathematics, TWMS

14. Awards:

- 1) 2012 Science prize of Okan University
- 2) Several awards from Istanbul University

3) Okan University and TUBITAK prizes for papers which are published in SCI journals, from 1997 to 2020.

15. Undergraduate and graduate level classes which I have taught in the last 5 years:

Academic Year	Semester	Class	Weekly Hour		Number of Students
			Theoretical	Applied	
2018	Autumn	Fund., Math. Temel Mat. Mat.113			250
	Spring	Mat.114, Math.114 Mat.216			270
2019	Autumn	Fund., Math. Temel Mat. Mat.113			240
	Spring	Mat.114, Math.114 Mat.216			260