

# CV

1. **Last name, first name:** Allahverdiyev Bilandar
2. **Academic title:** Professor
3. **Academic degree:** Doctor of Physical and Mathematical Sciences

Degree	Section/Programme	University	Year
University	Mathematics	Baku State University	1977
Candidate of Physical and Mathematical Sciences	Mathematics	Azerbaijan National Academy of Sciences	1982
Associate professor	Mathematics	Azerbaijan National Academy of Sciences	1989
Doctor of Physical and Mathematical Sciences	Mathematics	Azerbaijan National Academy of Sciences	1996

## 4. Master's and doctoral dissertations were defended under his supervisor

### 4.1. Master's Theses

1. MERYEM YALÇINKAYA, İkinci mertebeden adi diferansiyel operatörlerin kendine eş olan ve kendine eş olmayan genişlemeleri, 2020.
2. FATMA NİHAN KARAGÖZ, Fark denklemleri üzerine bir çalışma, 2019.
3. FİRDEVS YILDIZ, İkinci mertebeden fark denklemleri ve onların çözüm yöntemleri, 2018.
4. MEHMET AFŞİN ÖZEK, Perturbasyon metotlar ve bu metotların diferansiyel denklemlere uygulanması, 2013.
5. ÖZLEM KORKMAZ, Sınır değer problemleri ve fark denklemleri, 2010.
6. ASUMAN ZEYTİNOĞLU, Burgers denklemlerinin bazı yaklaşık çözümleri, 2010.
7. HAVVA ŞULE TUNCER, Kendine eş olmayan Sturm–Liouville operatörlerinin spektral analizi, 2009.
8. PAKİZE NEVAL ZEYNELGİL, Singüler adı diferansiyel denklemler için sınır değer problemleri, 2008.
9. ÇİĞDEM ARSLAN, Singüler lineer diferansiyel hamilton sistemler, 2008.
10. ABDURRAHMAN ÇAKIR, Kompleks potansiyele sahip Sturm–Liouville operatörü için ters saçılma problemi ve bazı uygulamaları, 2007.

11. GÜRİZ TURGUT, Hilbert uzayında kendine eş olmayan operatörlerin spektral analizi, 2002.

#### 4.2. PhD Theses

1. YÜKSEL YALÇINKAYA, Uyumlu kesirli mertebeden Sturm–Liouville denkleminin spektral analizi, 2020.
2. ASUMAN ZEYTİNOĞLU, Hesaplamalı akışkanlar dinamiğinde bir hibrit yaklaşım, 2017.
3. TUĞBA SARIŞAHİN, Zaman bağımlı kısmi türevli diferensiyel denklemlerin nümerik çözümü için Lagrange interpolasyon polinomları yardımıyla agsız çizgiler yöntemi, 2016.
4. İŞİL AÇIK DEMİRCİ, Sınır koşulunda spektral parametre bulunduran kendine eş olmayan Dirac sistemleri, 2016.
5. YILMAZ ERDEM, (A)(C, a) toplanabilme metodu için Tauber tipi teoremler, 2012.
6. ÜMİT TOTUR, Abel ve Cesàro toplanabilme metodları için Tauber tipi teoremler, 2011.
7. HÜSEYİN TUNA, Simetrik operatörlerin indis defekt ve genişleme teorisi, 2011.
8. CÜNEYT TOYGANÖZÜ, Sınır koşulunda spektral parametre bulunduran Sturm–Liouville problemleri, 2009.
9. AYTEKİN ERYILMAZ, Fark operatörlerinin spektral teorisi, 2006.
10. MEVLÜDE YAKIT ONGUN, Sınır koşullarında spektral parametre bulunduran ikinci mertebeden adi diferensiyel denklemler için sınır değer problemi, 2004.
11. SUNA SALTAN, Kendine eş olmayan matris potansiyele sahip Schrödinger operatörünün spektral analizi, 2002.

#### 5. Scientific Works

##### 5.1. Articles published in international peer-reviewed journals (SCI & ESCI & Scopus)

1. **B. P. ALLAKHVERDIEV** and G. A. ISAEV, Oscillation theorems for multiparametric problems with boundary conditions depending on spectral parameters, (Russian), Izv. Akad. Nauk Az. SSR, Ser. Fiz.-Tekh. Mat. Nauk, vol. 2, no. 6, 17–24 (1981) (SCI-Expanded)
2. F. G. MAKSUDOV and **B. P. ALLAKHVERDIEV**, Spectral analysis of a new class of nonselfadjoint operators with continuous spectrum and point spectrum, Soviet Mathematics - Doklady, vol. 30, 566–569 (1984) (SCI-Expanded)
3. **B. P. ALLAKHVERDIEV**, On dissipative extensions of the symmetric Schrödinger operator in Weyl's limit-circle case, Soviet Mathematics - Doklady, vol. 35, no. 2, 356–359 (1987) (SCI-Expanded)

4. F. G. MAKSUDOV and **B. P. ALLAKHVERDIEV**, On the theory of the characteristic function and spectral analysis of a dissipative Schrödinger operator. Soviet Mathematics - Doklady, vol. 38, no. 3, 665–668 (1989) (SCI-Expanded)
5. **B. P. ALLAKHVERDIEV** and G. Sh. GUSEINOV, On the spectral theory of dissipative difference operators of second order, Sbornik Mathematics, vol. 66, no. 1, 107–125 (1990) (SCI-Expanded)
6. F. G. MAKSUDOV, **B. P. ALLAKHVERDIEV** and E. BAIRAMOV, On the spectral theory of a nonselfadjoint operator generated by an infinite Jacobi matrix, Doklady Mathematics, vol. 43, no. 1, 78–82 (1991) (SCI-Expanded)
7. **B. P. ALLAKHVERDIEV**, On dilation theory and spectral analysis of dissipative Schrödinger operators in Weyl's limit-circle case, Izvestiya Mathematics, vol. 36, no. 2, 247–262 (1991) (SCI-Expanded)
8. **B. P. ALLAKHVERDIEV**, Selfadjoint and non-selfadjoint extensions of the symmetric operator generated by an infinite Jacobi matrix, Mathematical Notes, vol. 50, no. 5, 1093–1097 (1991) (SCI-Expanded)
9. **B. P. ALLAKHVERDIEV**, On the theory of nonselfadjoint operators of Schrödinger type with a matrix potential, Izvestiya Mathematics, vol. 41, no. 2, pp. 193–205 (1993) (SCI-Expanded)
10. F. G. MAKSUDOV and **B. P. ALLAKHVERDIEV**, Spectral analysis of nonselfadjoint operator-valued functions with continuous and point spectrum, Doklady Mathematics, vol. 47, no. 2, 174–178 (1993) (SCI-Expanded)
11. F. G. MAKSUDOV and **B. P. ALLAKHVERDIEV**, On the spectral theory of nonselfadjoint second-order difference operators with matrix coefficients, Doklady Mathematics, vol. 47, no. 1, 146–149 (1993) (SCI-Expanded)
12. F. G. MAKSUDOV and **B. P. ALLAKHVERDIEV**, On extensions of symmetric Schrödinger operators with matrix potentials, Doklady Mathematics, vol. 48, no. 2, 240–243 (1994) (SCI-Expanded)
13. **B. P. ALLAKHVERDIEV**, Extensions of symmetric Schrödinger operators with matrix potentials, Izvestiya Mathematics, vol. 5, no. 1, 45–62 (1995) (SCI-Expanded)
14. F. G. MAKSUDOV and **B. P. ALLAKHVERDIEV**, On the spectral theory of non-self-adjoint Dirac operators, Doklady Mathematics, vol. 53, no. 3, 372–373 (1996) (SCI-Expanded)
15. **B. P. ALLAHVERDIEV** and A. CANOĞLU, Spectral analysis of dissipative Schrödinger operators, Proceedings of the Royal Society of Edinburgh Section A-Mathematics, vol. 127, no. 6, 1113–1121 (1997) (SCI-Expanded)
16. **B. P. ALLAHVERDIEV**, Dilation and functional model of dissipative operator generated by an infinite Jacobi matrix, Mathematical and Computer Modelling, vol. 38, no. 10, 989–1001 (2003) (SCI-Expanded)
17. **B. P. ALLAHVERDIEV**, Extensions of the symmetric operator generated by an infinite Jacobi matrix, Mathematical and Computer Modelling, vol. 37, no. 9, 1093–1098 (2003) (SCI-Expanded)

18. **B. P. ALLAHVERDIEV**, Dissipative Sturm-Liouville operators with nonseparated boundary conditions, *Monatshefte für Mathematik*, vol. 140, no. 1, 1–17 (2003) (SCI-Expanded)
19. **B. P. ALLAHVERDIEV**, Extensions, dilations and functional models of discrete Dirac operators in limit point circle cases, *IMA Journal of Applied Mathematics*, vol. 68, No. 3, 251–267 (2003) (SCI-Expanded)
20. **B. P. ALLAHVERDIEV**, Spectral analysis of dissipative Dirac operators with general boundary conditions, *Journal of Mathematical Analysis and Applications*, vol. 288, no. 1, 287–303 (2003) (SCI-Expanded)
21. **B. P. ALLAHVERDIEV**, Extensions, dilations and functional models of discrete Dirac operators, *Illinois Journal of Mathematics*, vol. 47, no. 3, 831–845 (2003) (SCI-Expanded)
22. **B. P. ALLAHVERDIEV**, Dissipative Schrödinger operators with matrix potentials, *Potential Analysis*, vol. 20, no. 4, 303–315 (2004) (SCI-Expanded)
23. **B. P. ALLAHVERDIEV**, Dissipative second-order difference operators with general boundary conditions, *Journal of Difference Equations and Applications*, vol. 10, no. 1, 1–16 (2004) (SCI-Expanded)
24. **B. P. ALLAHVERDIEV**, Dissipative eigenvalue problems for a singular Dirac system, *Applied Mathematics and Computation*, vol. 152, no. 1, 127–139 (2004) (SCI-Expanded)
25. **B. P. ALLAHVERDIEV**, Extensions, dilations and functional models of Dirac operators, *Integral Equations and Operator Theory*, vol. 51, no. 4, 459–475 (2005) (SCI-Expanded)
26. **B. P. ALLAHVERDIEV** and S. SALTAN, Spectral analysis of nonselfadjoint Schrödinger operators with a matrix potential, *Journal of Mathematical Analysis and Applications*, vol. 303, no. 1, 208–219 (2005) (SCI-Expanded)
27. **B. P. ALLAHVERDIEV**, Extensions, dilations and functional models of Dirac operators in limit-circle case, *Forum Mathematicum*, vol. 17, no. 4, 591–611 (2005) (SCI-Expanded)
28. **B. P. ALLAHVERDIEV**, Extensions, dilations and functional models of infinite Jacobi matrix, *Czechoslovak Mathematical Journal*, vol. 55, no. 130, 593–609 (2005) (SCI-Expanded)
29. **B. P. ALLAHVERDIEV**, Dissipative Sturm–Liouville operators in limit-point case, *Acta Applicandae Mathematicae*, vol. 86, no. 3, 237–248 (2005) (SCI-Expanded)
30. **B. P. ALLAHVERDIEV**, Dissipative discrete Hamiltonian systems, *Computers Mathematics with Applications*, vol. 49, no. 7, 1139–1155 (2005) (SCI-Expanded)
31. **B. P. ALLAHVERDIEV**, A nonselfadjoint singular Sturm–Liouville problem with a spectral parameter in the boundary condition, *Mathematische Nachrichten*, vol. 278, no. 7, 743–755 (2005) (SCI-Expanded)
32. **B. P. ALLAHVERDIEV**, A dissipative singular Sturm–Liouville problem with a spectral parameter in the boundary condition, *Journal of Mathematical Analysis and Applications*, vol. 316, no. 2, 510–524 (2006) (SCI-Expanded)

33. M. YAKIT ONGUN and **B. P. ALLAHVERDIEV**, A completeness theorem for a dissipative Schrödinger problem with the spectral parameter in the boundary condition, *Mathematische Nachrichten*, vol. 281, no. 4, 1–14 (2008) (SCI-Expanded)
34. **B. P. ALLAHVERDIEV**, Nonselfadjoint singular Sturm–Liouville operators in limit circle case, *Taiwanese Journal of Mathematics*, vol. 16, no. 6, 2035–2052 (2012) (SCI-Expanded)
35. İ. ÇANAK, Ü. TOTUR and **B. P. ALLAHVERDIEV**, Tauberian conditions with controlled oscillatory behavior. *Applied Mathematics Letters*, vol. 25, No. 3, 252–256 (2012) (SCI-Expanded)
36. **B. P. ALLAHVERDIEV**, A nonself adjoint 1D singular Hamiltonian system with an eigenparameter in the boundary condition, *Potential Analysis*, vol. 38, no. 4, 1031–1045 (2013) (SCI-Expanded)
37. E. UĞURLU and **B. P. ALLAHVERDIEV**, On selfadjoint dilation of the dissipative extension of a direct sum differential operator, *Banach Journal of Mathematical Analysis*, vol. 7, no. 2, 194–207 (2013) (SCI-Expanded)
38. **B. P. ALLAHVERDIEV**, Extensions and spectral problems of 1D discrete Hamiltonian systems, *Mathematical Methods in the Applied Sciences*, vol. 36, no. 18, 2554–2563 (2013) (SCI-Expanded)
39. **B. P. ALLAHVERDIEV**, E. BAİRAMOV, and E. UĞURLU, Eigenparameter dependent Sturm–Liouville problems in boundary conditions with transmission conditions, *Journal of Mathematical Analysis and Applications*, vol. 401, no. 1, 388–396 (2013) (SCI-Expanded)
40. **B. P. ALLAHVERDIEV**, Extensions of symmetric second order difference operators with matrix coefficients, *Journal of Difference Equations and Applications*, vol. 19, no. 5, 839–849 (2013) (SCI-Expanded)
41. **B. P. ALLAHVERDIEV**, Spectral problems of nonsselfadjoint 1D singular Hamiltonian systems, *Taiwanese Journal of Mathematics*, vol. 17, no. 5, 1487–1502 (2013) (SCI-Expanded)
42. **B. P. ALLAHVERDIEV**, Dilations, models, scattering and spectral problems of 1D discrete Hamiltonian systems, *Bulletin of the Iranian Mathematical Society*, vol. 40, no. 6, 1553–1571 (2014) (SCI-Expanded)
43. **B. P. ALLAHVERDIEV**, Eigenvalue problems for a non-self-adjoint Bessel type operators in limit-point case, *Mathematical Methods in the Applied Sciences*, vol. 37, no. 18, 2946–2951 (2014) (SCI-Expanded)
44. **B. P. ALLAHVERDIEV**, Extensions of symmetric infinite Jacobi operator, *Linear and Multilinear Algebra*, vol. 62, no. 9, 1146–1152 (2014) (SCI-Expanded)
45. **B. P. ALLAHVERDIEV**, Spectral problems of Jacobi operators in limit-circle case, *Mathematical Reports*, vol. 17, no. 1, 81–89 (2015) (SCI-Expanded)
46. **B. P. ALLAHVERDIEV** and E. UĞURLU, On dilation, scattering and spectral theory for two interval singular differential operators, *Bulletin Mathématique de la Société des Sciences Mathématiques de Roumanie*, vol. 58, no. 4, 383–392 (2015) (SCI-Expanded)

47. Y. ERDEM, I. ÇANAK and **B. P. ALLAHVERDIEV**, Two theorems on the product of Abel and Cesàro summability methods, *Comptes Rendus de L'Académie Bulgare des Sciences*, vol. 68, no. 3, 287–294 (2015) (SCI-Expanded)
48. **B. P. ALLAHVERDIEV**, Non-self-adjoint Bessel and Sturm–Liouville boundary value problems in limit circle case, *Mathematical Methods in the Applied Sciences*, vol. 38, no. 7, 1271–1281 (2015) (SCI-Expanded)
49. **B. P. ALLAHVERDIEV** and E. UĞURLU, Spectral analysis of the direct sum Hamiltonian operators, *Quaestiones Mathematicae*, vol. 39, no. 6, 733–750 (2016) (SCI-Expanded)
50. **B. P. ALLAHVERDIEV**, Spectral problems of nonself adjoint singular discrete Sturm–Liouville operators, *Mathematica Slovaca*, vol. 66, no. 4, 967–978 (2016) (SCI-Expanded)
51. **B. P. ALLAKHVERDIEV**, Extensions of symmetric singular second-order dynamic operators on time scales, *Filomat*, vol. 30, no. 6, 1475–1484 (2016) (SCI-Expanded)
52. **B. P. ALLAHVERDIEV**, Spectral problems of non self adjoint q-Sturm–Liouville operators in limit point case, *Kodai Mathematical Journal*, vol. 39, no. 1, 1–15 (2016) (SCI-Expanded)
53. **B. P. ALLAHVERDIEV** and H. TUNA, One dimensional q-Dirac equation, *Mathematical Methods in the Applied Sciences*, vol. 40, no. 18, 7287–7306 (2017) (SCI-Expanded)
54. **B. P. ALLAHVERDIEV** and H. TUNA, Spectral analysis of q-fractional Sturm–Liouville operators, *Electronic Journal of Differential Equations*, vol. 2017, no. 136, 1–17 (2017) (SCI-Expanded)
55. **B. P. ALLAHVERDIEV** and E. UĞURLU, Scattering and spectral problems of the direct sum Sturm–Liouville operators, *Appl. Comput. Math.* vol. 16, no. 3, 257–268 (2017) (SCI-Expanded)
56. A. H. SOFIYEV, Z. ZERIN, **B. P. ALLAHVERDIEV**, D. HUI, F. TURAN and H. ERDEM, The dynamic instability of FG orthotropic conical shells within the SDT, *Steel and Composite Structures*, vol. 25, no. 5, 581–591 (2017) (SCI-Expanded)
57. **B. P. ALLAHVERDIEV**, A. ERYILMAZ, and H. TUNA, Dissipative Sturm–Liouville operators with a spectral parameter in the boundary condition on bounded time scales, *Electronic Journal of Differential Equations*, vol. 2017, no. 95, 1–13 (2017) (SCI-Expanded)
58. **B. P. ALLAHVERDIEV**, Extensions, dilations and spectral analysis of singular Sturm–Liouville operators, *Mathematical Reports*, vol. 19, no. 2, 225–243 (2017) (SCI-Expanded)
59. **B. P. ALLAHVERDIEV** and H. TUNA, Dissipative q-Dirac operator with general boundary conditions, *Quaestiones Mathematicae*, vol. 41, no. 2, 239–255 (2018) (SCI-Expanded)

60. **B. P. ALLAHVERDIEV** and H. TUNA, An expansion theorem for q-Sturm–Liouville operators on the whole line, *Turkish Journal of Mathematics*, vol. 42, no. 3, 1060–1071 (2018) (SCI-Expanded)
61. A. ZEYTINOĞLU, M. SARI, and **B. P. ALLAHVERDIEV**, Numerical simulations of shock wave propagating by a hybrid approximation based on high order finite difference schemes, *Acta Physica Polonica A*, vol. 133, no. 1, 140–151 (2018) (SCI-Expanded)
62. **B. P. ALLAHVERDIEV**, Extensions, dilations and spectral problems of singular Hamiltonian systems, *Mathematical Methods in the Applied Sciences*, vol. 41, no. 5, 1761–1773 (2018) (SCI-Expanded)
63. **B. P. ALLAHVERDIEV** and H. TUNA, Spectral expansion for the singular Dirac system with impulsive conditions, *Turkish Journal of Mathematics*, vol. 42, no. 5, 2527–2545 (2018) (SCI-Expanded)
64. **B. P. ALLAHVERDIEV** and H. TUNA, Titchmarsh–Weyl theory for Dirac systems with transmission conditions, *Mediterranean Journal of Mathematics*, vol. 15, no. 151, 1–12 (2018) (SCI-Expanded)
65. A. ZEYTİNOĞLU, M. SARI and **B. P. ALLAHVERDIEV**, A hybrid approach for the regularized long wave Burgers equation, *An International Journal of Optimization and Control: Theories Applications*, vol. 8, no. 1, 8–16 (2018) (Scopus).
66. H. TUNA and **B. P. ALLAHVERDIEV**, Dissipative Extensions of Fourth Order Differential Operators, *Thai Journal of Mathematics*, vol. 16, no. 1, 275–285 (2018) (Scopus).
67. **B. P. ALLAHVERDIEV**, H. TUNA, and Y. YALÇINKAYA, Conformable fractional Sturm–Liouville equation, *Mathematical Methods in the Applied Sciences*, vol. 42, no. 10, 3508–3526 (2019) (SCI-Expanded)
68. **B. P. ALLAHVERDIEV** and H. TUNA, On expansion in eigenfunction for q-Dirac systems on the whole line, *Mathematical Reports*, vol. 21, no. 3, 369–382 (2019) (SCI-Expanded)
69. **B. P. ALLAHVERDIEV**, Functional model and spectral analysis of discrete singular Hamiltonian system, *Taiwanese Journal of Mathematics*, vol. 23, no. 3, 653–673 (2019) (SCI-Expanded)
70. **B. P. ALLAHVERDIEV**, Non-self-adjoint singular second order dynamic operators on time scale, *Mathematical Methods in the Applied Sciences*, vol. 42, no. 1, 229–236 (2019) (SCI-Expanded)
71. **B. P. ALLAHVERDIEV** and H. TUNA, The spectral expansion for the Hahn–Dirac system on the whole line, *Turkish Journal of Mathematics*, vol. 43, no. 3, 1668–1687 (2019) (SCI-Expanded)
72. **B. P. ALLAHVERDIEV** and H. TUNA, Limit-point criteria for q-Sturm–Liouville equations, *Quaestiones Mathematicae*, vol. 42, no. 10, 1291–1299 (2019) (SCI-Expanded)
73. **B. P. ALLAHVERDIEV** and H. TUNA, Titchmarsh–Weyl theory for q-Dirac systems, *Infinite Dimensional Analysis, Quantum Probability and Related Topics*, vol. 22, no. 2, 1–14 (2019) (SCI-Expanded)

74. **B. P. ALLAHVERDIEV**, Spectral analysis of singular matrix-valued Sturm–Liouville operators, *Mediterranean Journal of Mathematics*, vol. 16, no. 83, 1–20 (2019) (SCI-Expanded)
75. **B. P. ALLAHVERDIEV**, Spectral analysis of singular Hamiltonian systems with an eigenparameter in the boundary condition, *Electronic Journal of Differential Equations*, vol. 2019, no. 2, 1–14 (2019) (SCI-Expanded)
76. **B. P. ALLAHVERDIEV** and H. TUNA, Indices defect theory of singular Hahn–Sturm–Liouville operators, *Journal of Applied Analysis and Computation*, vol. 9, no. 5, 1719–1730 (2019) (SCI-Expanded)
77. **B. P. ALLAHVERDIEV** and H. TUNA, Eigenfunction expansion for singular Sturm–Liouville problems with transmission conditions, *Electronic Journal of Differential Equations*, vol. 2019, no. 3, 1–10 (2019) (SCI-Expanded)
78. **B. P. ALLAHVERDIEV** and H. TUNA, Nonlinear singular Sturm–Liouville problems with impulsive conditions, *Facta Univ. Ser. Math. Inf.* vol. 34, no. 3, 439–457 (2019) (ESCI).
79. **B. P. ALLAHVERDIEV** and H. TUNA, Resolvent operator of singular Dirac system with transmission conditions, *Rad Hrvatske Akademije Znanosti i Umjetnosti. Matematičke Znanosti*, vol. 23, 85–105 (2019) (ESCI).
80. **B. P. ALLAHVERDIEV** and H. TUNA, Some properties of the resolvent of Sturm–Liouville operators on unbounded time scales, *Mathematica*, vol. 6184, no. 1, 3–21 (2019) (Scopus).
81. **B. P. ALLAHVERDIEV** and H. TUNA, A spectral theory for discontinuous Sturm–Liouville problems on the whole line, *Le Matematiche*, vol. 74, no. 2, 235–251 (2019) (ESCI).
82. **B. P. ALLAHVERDIEV** and H. TUNA, Qualitative spectral analysis of singular q-Sturm–Liouville operators, *Bulletin of the Malaysian Mathematical Sciences Society*, vol. 43, no. 2, 1391–1402 (2020) (SCI-Expanded)
83. **B. P. ALLAHVERDIEV** and H. TUNA, A Representation of the resolvent operator of singular Hahn–Sturm–Liouville problem, *Numerical Functional Analysis and Optimization*, vol. 41, no. 4, 413–431 (2020) (SCI-Expanded)
84. **B. P. ALLAHVERDIEV** and H. TUNA, Dissipative Dirac operator with general boundary conditions on time scales, *Ukrainian Mathematical Journal*, vol. 72, no. 5, 670–689 (2020) (SCI-Expanded)
85. **B. P. ALLAHVERDIEV**, H. TUNA, and Y. YALÇINKAYA, Spectral expansion for singular conformable Sturm–Liouville problem, *Mathematical Communications*, vol. 25, 237–252 (2020) (SCI-Expanded)
86. **B. P. ALLAHVERDIEV** and H. TUNA, On the resolvent of singular Sturm–Liouville operators with transmission conditions, *Mathematical Methods in the Applied Sciences*, vol. 43, 4286–4302 (2020) (SCI-Expanded)
87. **B. P. ALLAHVERDIEV** and H. TUNA, q-Hamiltonian systems, *Turkish Journal of Mathematics*, vol. 44, no. 6, 2241–2258 (2020) (SCI-Expanded)
88. **B. P. ALLAHVERDIEV** and H. TUNA, Properties of the resolvent of singular q-Dirac operators, *Electronic Journal of Differential Equations*, vol. 2020, no. 3, 1–13 (2020) (SCI-Expanded)

89. **B. P. ALLAHVERDIEV** and H. TUNA, Spectral theory of singular Hahn difference equation of the Sturm–Liouville type, *Communications in Mathematics*, vol. 28, 13–25 (2020) (Scopus)
90. **B. P. ALLAHVERDIEV** and H. TUNA, Existence of solutions for nonlinear singular  $q$ -Sturm–Liouville problems, *Ufa Mathematical Journal*, vol. 12, no. 1, 91–102 (2020) (ESCI)
91. **B. P. ALLAHVERDIEV** and H. TUNA, Investigation of the spectrum of singular Sturm–Liouville operators on unbounded time scales, *São Paulo Journal of Mathematical Sciences*, vol. 14, 327–340 (2020) (ESCI)
92. **B. P. ALLAHVERDIEV** and H. TUNA, Dissipative  $q$ -Dirac operator, *Palestine Journal of Mathematics*, vol. 9, no. 1, 200–211 (2020) (Scopus)
93. **B. P. ALLAHVERDIEV** and H. TUNA,  $q$ -fractional Dirac type systems, *Rad Hrvat. Akad. Znan. Umjet. Mat. Znan.* vol. 24, 117–130 (2020) (ESCI)
94. **B. P. ALLAHVERDIEV** and H. TUNA, One dimensional conformable fractional Dirac system, *Bol. Soc. Mat. Mex.* vol. 26, no. 1, 121–146 (2020) (ESCI)
95. **B. P. ALLAHVERDIEV** and H. TUNA, Spectral expansion for singular conformable fractional Dirac systems, *Rendiconti del Circolo Matematico di Palermo Series 2*, vol. 69, 1359–1372 (2020) (ESCI)
96. **B. P. ALLAHVERDIEV** and H. TUNA, Extensions of the matrix-valued  $q$ -Sturm–Liouville operators, *Turkish Journal of Mathematics*, vol. 45, no. 3, 1479–1494 (2021) (SCI-Expanded)
97. **B. P. ALLAHVERDIEV**, Dilations, models and spectral problems of non-self-adjoint Sturm–Liouville operators, *Miskolc Mathematical Notes*, vol. 22, no. 1, 17–32 (2021) (SCI-Expanded)
98. **B. P. ALLAHVERDIEV** and H. TUNA, Regular fractional Dirac type systems, *Facta Univ. Ser. Math. Inform.*, vol. 36, no. 3, 489–499 (2021) (ESCI)
99. **B. P. ALLAHVERDIEV** and H. TUNA, On the resolvent of singular  $q$ -Sturm–Liouville operators, *Commun. Fac. Sci. Univ. Ank. Ser. A1. Math. Stat.*, vol. 70., no. 2, 702–718 (2021) (ESCI)
100. **B. P. ALLAHVERDIEV** and H. TUNA, Spectral analysis of Hahn–Dirac system, *Proyecciones Journal of Mathematics*, vol. 40, no. 6, 1547–1567 (2021) (Scopus)
101. **B. P. ALLAHVERDIEV** and H. TUNA, Titchmarsh–Weyl theory of the singular Hahn–Sturm–Liouville equation, *Vladikavkaz Mathematical Journal*, vol. 23, no. 3, 16–26 (2021) (Scopus)
102. **B. P. ALLAHVERDIEV** and H. TUNA, Discontinuous linear Hamiltonian systems, *Filomat*, vol. 36, no. 3, 813–827 (2022) (SCI-Expanded)
103. **B. P. ALLAHVERDIEV** and H. TUNA, Conformable fractional Sturm–Liouville problems on time scales, *Mathematical Methods in the Applied Sciences*, vol. 45, 2299–2314 (2022) (SCI-Expanded)
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## **6. National and International Projects (DPT, TUBITAK, EU, etc.)**

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2. A(C,a) toplanabilme metodu için Tauber tipi teoremler. S.D.U. A.F. Project (PhD), No: 2768-D-11, Project Manager
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4. Abel ve Cesaro toplanabilme metodları için Tauber tipi teoremler. S.D.U. A.F. Project (PhD), No: 2225-D-10, Project Manager
5. Burgers Denklemlerinin Bazı yaklaşık Çözümleri, S.D.U. A.F. Project (Master), No: 2058-YL-09, Project Manager
6. Fark operatörlerinin spektral analizi. S.D.U. A.F. Project (PhD), No: 0465, Project Manager
7. Sınır koşullarında spektral parametre bulunduran II. mertebeden adi diferansiyel denklemler için sınır değer problemi. S.D.U. A.F. Project (PhD), Project Manager
8. Kendine eş olmayan Schrödinger operatörlerinin spektral analizi. S.D.U. A.F. Project (PhD), Project Manager