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Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-6836-2020

ScopusID: 84943246450

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Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik, Turkey 2001 - 2006

Postgraduate, Mimar Sinan Fine Arts University, Institute Of Science, Matematik, Turkey 1998 - 2001

Undergraduate, Yildiz Technical University, Fen Edebiyat Fakültesi, Matematik, Turkey 1991 - 1997

Foreign Languages

English, B1 Intermediate

Research Areas

Mathematics, Differential Equations, Natural Sciences

Academic Titles / Tasks

Lecturer PhD, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2007 - Continues

Research Assistant PhD, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2006 - Continues

Research Assistant, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 1998 - Continues

Courses

Undergraduate

Linear Algebra, Undergraduate, 2022 - 2023, 2021 - 2022, 2018 - 2019

Mathematics 2, Undergraduate, 2021 - 2022, 2019 - 2020, 2018 - 2019

Mathematics 1, Undergraduate, 2022 - 2023

Mathematics 1, Undergraduate, 2021 - 2022

Differential Equations, Undergraduate, 2019 - 2020, 2018 - 2019

Mathematics, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2015 - 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Second regularized trace of a differential operator of Sturm–Liouville type**
Gül E., Karayel S.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.47, no.7, pp.5461-5483, 2024 (SCI-Expanded)
- II. **On Higher Regularized Traces of a Differential Operator with Bounded Operator Coefficient Given in a Finite Interval**
SEZER Y., BAKŞI Ö., KARAYEL S.
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.18, no.3, 2021 (SCI-Expanded)
- III. **Second regularized trace of a differential operator with second order unbounded operator coefficient given in a finite interval**
Bakşi Ö., Karayel S., Sezer Y.
Operators and Matrices, vol.11, pp.735-747, 2017 (SCI-Expanded)
- IV. **The regularized trace formula for a fourth order differential operator given in a finite interval**
Karayel S., Sezer Y.
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **Time-Ordered Evolution on the Feynman-Dyson Hilbert Space**
Gül E., Gill T. L., Bakşi Ö., Kızılbudak Çalışkan S., Kara Hansen A., Karayel S., Sezer Y.
BOLETIM DA SOCIEDADE PARANAENSE DE MATEMATICA, vol.45, no.1, pp.1-20, 2025 (ESCI)
- II. **TRACE REGULARIZATION PROBLEM FOR HIGHER ORDER DIFFERENTIAL OPERATOR**
Sezer Y., Bakşi Ö., Karayel S.
Maltepe Journal of Mathematics, vol.2, no.1, pp.27-37, 2020 (Peer-Reviewed Journal)
- III. **The sum of subtraction of the eigenvalues of two self adjoint differential operators with unbounded operator coefficient**
BAKŞI Ö., SEZER Y., KARAYEL S.
INTERNATIONAL JOURNAL OF PURE AND APPLIED MATHEMATICS, vol.3, no.63, pp.255-268, 2010 (Scopus)
- IV. **Asymptotic formulas for the number of negative eigenvalues of a differential operator with operator coefficient**
Karayel S., Adıgüzelov E.
INTERNATIONAL JOURNAL OF MATHEMATICAL ANALYSIS, vol.3, pp.491-504, 2009 (Scopus)
- V. **A self adjoint expansion of a symmetric differential operator with operator coefficient**
Karayel S., Adıgüzelov E.
Int. J. Contemp. Math. Sci., Vol. 2, No. 22, s. 1053-1067., vol.2, no.66, pp.1053-1067, 2007 (Peer-Reviewed Journal)
- VI. **The asymptotic formulas for the sum of squares of negative eigenvalues of the singular Sturm-Liouville operator**
Karayel S., Adıgüzelov E., Akyol M.
Int. J. Contemp. Math. Sci., vol.1, no.7, pp.341-358, 2006 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

- I. **Time-Ordered Hyperbolic Evolution Systems**

- Bakşı Ö., Gül E., Kızılbudak Çalışkan S., Sezer Y., Karayel S., Hansen A. K., Gill T. L.
2nd International Workshop: Constructive Mathematical Analysis, Konya, Turkey, 6 - 08 July 2023, pp.10
- II. **On The Second Regularized Trace Formula of A Second Order Differential Operator**
Gül E., Karayel S.
2nd International Workshop: Constructive Mathematical Analysis, Konya, Turkey, 6 - 08 July 2023, pp.21
- III. **On a Second Regularized Trace Formula**
Gül E., Karayel S.
2nd International E-Conference on Mathematical and Statistical Sciences: A Selcuk Meeting, Konya, Turkey, 5 - 07 June 2023, pp.108
- IV. **On the Number of Negative Eigenvalues of a Differential Operator with Operator Coefficient**
KARAYEL S., Adıgüzelov E.
Operator Theory, Analysis and Mathematical Physics Conference, 01 June 2012
- V. **The Regularized Trace Formula For a Differential Operator of Fourth order with bounded operator Coefficient**
SEZER Y., BAKŞI Ö., KARAYEL S.
International Conference on Mathematical Sciences, Bolu, Turkey, 23 - 27 November 2010
- VI. **The Regularized Trace Formula for a Differential Operator of Fourth Order with Bounded Operator Coefficient**
Bakşı Ö., KARAYEL S.
Int. Conference on Mathematical Science, 01 November 2010
- VII. **The Asymptotic Formula for the Subtraction of eigenvalues of a second order Differential operator**
Bakşı Ö., Karayel S., Sezer Y.
International Symposium on Analysis and theory of Functions, İstanbul Kültür University, İstanbul, Turkey, 24 - 26 August 2009, pp.41-42
- VIII. **Yarı Eksende verilmiş Sturm- Liouville Operatörünün Negatif Özdeğerlerinin Karelerinin Toplamının Asimtotik Davranışı**
KARAYEL S., Adıgüzelov E.
XIX. Ulusal Matematik Sempozyumu, 01 August 2006

Supported Projects

GÜL E., KIZILBUDAK ÇALIŞKAN S., SEZER Y., BAKŞI Ö., KARAYEL S., Project Supported by Higher Education Institutions, Zaman-Sıralı Hiperbolik ve Parabolik Evolüsyon Sistemleri, 2023 - 2024

GÜL E., KARAYEL S., Project Supported by Higher Education Institutions, Sınırlı Operatör Katsayılı Sturm-Liouville Operatörünün İkinci Düzenli İzinin Hesaplanması, 2023 - 2023