Prof. ESRA KIR ARPAT

Personal Information

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Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Turkey 1995 - 1999
Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Matematik, Turkey 1993 - 1995
Undergraduate, Gazi University, Fen-Edebiyat Fakültesi, Matematik Pr., Turkey 1987 - 1992

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

Personal Evolution, Regresyon Terapistliği, Türkiye Eğitim Kurumu, 2022
Personal Evolution, Eğitim Koçluğu, Başkent Üniversitesi, 2021
Education Management and Planning, Yaşam Koçluğu, Başkent Üniv, 2019

Dissertations

Doctorate, Bir Diferensiyel Denklem Sistemin Ürettiği Non-selfadjoint Singüler Diferensiyel Operatörün Spektral Analizi, Gazi University, Fen Fakültesi, Matematik Bölümü, 1999
Postgraduate, Non-selfadjoint Singüler Diferensiyel Operatörlerin Spektral Analizi, Ankara University, Fen Bilimleri Enstitüsü, 1995

Research Areas

Mathematics, Functional Analysis

Academic Titles / Tasks

Associate Professor, Gazi University, Fen Fakültesi, Matematik, 2012 - 2017

Assistant Professor, Gazi University, Fen Fakültesi, Matematik, 2002 - 2012

Academic and Administrative Experience

Deputy Head of Department, Gazi University, Fen Fakültesi, Matematik, 2020 - 2022

Courses

Araştırma Projesi-II, Undergraduate, 2019 - 2020
Non-Selfadjoint Difensiyel Operatörlerin Spektral Analiz II , Postgraduate, 2019 - 2020
Diferensiyel Denklemler, Undergraduate, 2020 - 2021
Non-Selfadjoint Diferensiyel Operatörlerin Spektral Analizi-I, Postgraduate, 2020 - 2021
Analiz-I, Undergraduate, 2020 - 2021
Analiz II, Undergraduate, 2019 - 2020
Kompleks Analiz , Undergraduate, 2018 - 2019
Araştırma Projesi-I, Undergraduate, 2019 - 2020
Analiz-III, Undergraduate, 2018 - 2019
Spektral Analiz-II, Undergraduate, 2015 - 2016
Harmonik Analiz-I, Postgraduate, 2015 - 2016
Spektral Analiz-I, Undergraduate, 2016 - 2017

Advising Theses

KIR ARPAT E., Levınson Formula For Dırac System Wıth Boundary Condıtıon, Postgraduate, S.KAYHAN(Student), 2021
KIR ARPAT E., Spectral Properties Of Sturm-Lıouvılle Operators System Wıth Boundary Condıtıons Dependıng On The Spectral Parameter, Postgraduate, S.ARIKAN(Student), 2020
KIR ARPAT E., Spectral Theory Of Non-Selfadjoınt Sturm-Lıouvılle Operator Wıth Operator Coefficient, Doctorate, G.Mutlu(Student), 2018
KIR ARPAT E., Spectral Properties Of A System Of Sturm-Lıouvılle Difference Operators, Postgraduate, B.Yüksel(Student), 2017
KIR ARPAT E., Sturm Liouville fark operatörler sisteminin spektral özellikleri, Postgraduate, B.YÜKSEL(Student), 2017
KIR ARPAT E., Sonlu zaman skalası üzerinde genel sınır koşullu 2. mertebeden lineer dinamik denklemin ürettiği operatörün spektral özellikleri, Postgraduate, N.SESLİ(Student), 2016
KIR ARPAT E., The Spectral Properties Of The Operator Generated By The Second Order Linear Dynamic Equation With General Boundary Condition On A Finite Time Scale, Postgraduate, N.Sesli(Student), 2016
KIR ARPAT E., Spectral proporties of schrodinger equation with a general boundary conditions on finite time scale, Postgraduate, H.TERZİ(Student), 2014
KIR ARPAT E., Kompleks potansiyelli Klein-Gordon denkleminin spektral özellikleri, Postgraduate, E.YEŞİLTEPELER(Student), 2007
KIR ARPAT E., Sınır koşullu Schröndinger operatörünün spektrumu ve esas fonksiyonları, Postgraduate, E.SOYLU(Student), 2006
KIR ARPAT E., Genel sınır koşullu kuadratik Schrödinger operatörünün spektrumu ve spektral özellikleri, Postgraduate, P.IŞIK(Student), 2005

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Spectral properties of the finite system of Klein-Gordon s-wave equations with general boundary condition**

Kır Arpat E., Yokuş N., Çoşkun N.
FILOMAT, no.37, pp.1907-1914, 2023 (SCI-Expanded)

II. **Continuity of the scattering function and Levinson type formula for Klein-Gordon s-wave equation with boundary condition depends on spectral parameter**
Kır Arpat E., Köprübaşı T.
FILOMAT, vol.37, no.20, pp.1225-1233, 2023 (SCI-Expanded)

III. **Spectral properties of non-selfadjoint Sturm-Liouville operator equation on the real axis**
MUTLU G., KIR ARPAT E.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.49, no.5, pp.1686-1694, 2020 (SCI-Expanded)

IV. **Spectral properties of non-selfadjoint Sturm Liouville operator with operator coefficient**
Bairamov E., Arpat E., MUTLU G.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.456, no.1, pp.293-306, 2017 (SCI-Expanded)

V. **On the structure of discrete spectrum of a non-selfadjoint system of differential equations with integral boundary condition**
YARDIMCI Ş., KIR ARPAT E., Can C.
JOURNAL OF MATHEMATICAL CHEMISTRY, vol.55, no.5, pp.1202-1212, 2017 (SCI-Expanded)

VI. **Spectral properties of Sturm-Liouville system with eigenvalue-dependent boundary conditions**
Kır Arpat E., Mutlu G.
INTERNATIONAL JOURNAL OF MATHEMATICS, vol.26, no.10, 2015 (SCI-Expanded)

Articles Published in Other Journals

I. **Uniqueness of the solution to the inverse problem of scattering theory for spectral parameter polynomially dependent Kle?n-Gordon s-wave equation br**
KIR ARPAT E., Yokus N.
ADVANCED STUDIES-EURO-TBILISI MATHEMATICAL JOURNAL, vol.16, no.1, pp.129-140, 2023 (ESCI)

II. **Uniqueness of the solution to the inverse problem of scattering theory for spectral parameter polynomially dependent Klein-Gordon s-wave equation**
KIR ARPAT E., YOKUŞ N.
Euro-Tbilisi Mathematical Journal, vol.15, no.4, 2023 (Scopus)

III. **UNIQUENESS OF THE SOLUTION TO THE INVERSE PROBLEM OF SCATTERING THEORY FOR SPECTRAL PARAMETER DEPENDENT KLEIN-GORDON S-WAVE EQUATION**
KIR ARPAT E., KÖPRÜBAŞI T.
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.72, 2023 (Scopus)

IV. **Spectral Analysis of Non-selfadjoint Second Order Difference Equation with Operator Coefficient**
MUTLU G., KIR ARPAT E.
Sakarya University Journal of Science, vol.24, no.3, pp.501-507, 2020 (Peer-Reviewed Journal)

V. **Spectral expansion of Sturm-Liouville problems with eigenvalue-dependent boundary conditions**
Kır Arpat E., Yokuş N.
Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics, vol.68, no.2, pp.1316-1334, 2019 (Peer-Reviewed Journal)

VI. **SPECTRAL EXPANSION OF STURM-LIOUVILLE PROBLEMS WITH EIGENVALUE-DEPENDENT BOUNDARY CONDITIONS**
YOKUŞ N., KIR ARPAT E.
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.68, no.2, pp.1316-1334, 2019 (ESCI)

VII. **Spectral properties Scrödinger operator with a general boundary conditions of finite time scales**
Kır Arpat E.
Gazi University Journal of Science, vol.29, no.2, pp.467-472, 2016 (Scopus)

VIII. **Uniqueness of the solution to the inverse solution of scattering theory for the Sturm-Liouville operator system with a spectral parameter in the boundary condition**
Kır Arpat E., Tunca G. B.
Gazi University Journal of Science, vol.29, no.1, pp.135-142, 2016 (Scopus)

IX. **Spectral Properties of Schrodinger Operator with a General Boundary Conditions on Finite Time Scale**
KIR ARPAT E., Terzi H.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.2, pp.467-472, 2016 (ESCI)

X. **Uniqueness of the Solution to the Inverse Problem of Scattering Theory for the Sturm-Liouville Operator System with a Spectral Parameter in the Boundary Condition**
Bascanbaz Tunca G., KIR ARPAT E.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.1, pp.135-142, 2016 (ESCI)

Books & Book Chapters

I. **Limit ve Süreklilik**
CENGİZ N., TARAKCI Ö., TOSUN M., KADAKAL M., ŞENGÜL S., KAPLAN A., KIR ARPAT E., AKTAŞ M.
in: Genel Matematik 1, Sağel, Mustafa Kemal ; Aktaş, Mine , Editor, Pegem Akademi, Ankara, pp.157-185, 2010

II. **Limit ve Süreklilik**
CENGİZ N., TARAKCI Ö., AKTAŞ M., TOSUN M., KADAKAL M., ŞENGÜL S., KAPLAN A., KIR ARPAT E.
in: Genel Matematik 1 Problem Çözümleri, Sağel, Mustafa Kemal ; Aktaş, Mine , Editor, Pegem Akademi, Ankara, pp.135-149, 2006

Refereed Congress / Symposium Publications in Proceedings

I. **Spectral Properties of Sturm-Liouville Operators System**
Kır Arpat E.
Umbak I. Uluslararası Bilimsel Araştırma Kongresi, Ankara, Turkey, 28 February - 01 March 2020, pp.144-153

II. **An Eigenfunction Expansion of the Non-Selfadjoint Sturm-Liouville Operator**
YOKUŞ N., KIR ARPAT E., ÇOŞKUN N.
7th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2018), KİEV, Ukraine, 28 - 31 August 2018, pp.79

III. **Spectral Analysis of Non-selfadjointSturm-Liouville Operator on the Real Line withOperator Coefficient**
MUTLU G., BAYRAM E., KIR ARPAT E.
The 3rd International Conference on Natural Science and Applied Mathematics(ICNSAM 2018), 15 - 18 June 2018

IV. **Spectral Properties of a Finite System ofSturm-Liouville Difference Operators**
KIR ARPAT E., yüksel b.
IRSYSC 2017 - 3rd International Researchers, Statisticians and YoungStatisticians Congress, 24 - 26 May 2017

V. **Spectral Properties of Non-selfadjoint Sturm-Liouville Operator with Operator Coefficient**
BAYRAM E., KIR ARPAT E., MUTLU G.
INTERNATIONAL WORKSHOP ON MATHEMATICAL METHODS IN ENGINEERING, 27 - 29 April 2017

VI. **Sonlu Zaman Skalası Üzerinde Genel Sınır Koşullu 2. Mertebeden Lineer Dinamik Denklemin Ürettiği Operatörün Spektral Özellikleri**
Kır Arpat E.
14. Matematik Sempozyumu, Niğde, Turkey, 14 - 16 May 2015, pp.67-69

VII. **An expansion for Schrödinger equation on finite time scale**
Kır Arpat E., Yokuş N.
Mathematics Days 2014 – International Mathematics Symposium, Çankırı, Turkey, 11 - 13 June 2014, pp.131

VIII. **Singüler Potansiyele Sahip Non-Selfadjoint Sturm-Liouville Diferensiyel Operatörün Spektrumu ve Esas Fonksiyonları**
Kır Arpat E.
XX. Ulusal Matematik Sempozyumu, Erzurum, Turkey, 3 - 06 September 2007, pp.42

IX. **2. Mertebeden Diferensiyel Denklem Sisteminin Ürettiği Singüler Diferensiyel Operatörün Spektral Özellikleri**
Kır Arpat E., Bayram E.
Türk Matematik Derneği XV. Ulusal Matematik Sempozyumu, Mersin, Turkey, 4 - 07 September 2002, pp.45

X. **Bir Diferensiyel Denklem Sistemin Ürettiği Özeşlenik Olmayan Diferensiyel Operatörün Spektral Özellikleri**
Kır Arpat E.
Doç.Dr. Eyüp Sabri Türker Anısına Matematik Sempozyumu, Sakarya, Turkey, 19 - 20 October 2000, pp.32

XI. **Spectral Expansion of the Non-Selfadjoint Differential Operator Generated by a System of Differential Equations**
Kır Arpat E.
Workshop on Differential Equations and Its Applications, İstanbul, Turkey, 14 - 16 September 2000, pp.25

XII. **Principal functions of the non-selfadjoint operator generated by system of differential equations**
Kır Arpat E.
Proceedings of the Second Kızılırmak Science Congress, Kırıkkale, Turkey, 20 - 22 May 1998, pp.41-52

Activities in Scientific Journals

Mathematical Methods in the Applied Sciences, Evaluation Committee Member, 2019 - Continues
Pure and Applied Mathematics Journal , Editor, 2017 - Continues
SCIREA Journal of Mathematics, Editor, 2017 - Continues

Scientific Refereeing

JOURNAL OF INEQUALITIES AND APPLICATIONS, SCI Journal, April 2015
ADVANCES IN DIFFERENCE EQUATIONS, SCI Journal, March 2015
ADVANCES IN DIFFERENCE EQUATIONS, SCI Journal, November 2014
JOURNAL OF INEQUALITIES AND APPLICATIONS, SCI Journal, October 2013

Metrics

Publication: 31
Citation (WoS): 14
Citation (Scopus): 13
H-Index (WoS): 3
H-Index (Scopus): 3

Awards

Mutlu G., Kır Arpat E., Gazi Üniversitesi Bilimsel Yayınları Teşvik Ödülü, Gazi Üniversitesi, June 2021
Mutlu G., Kır Arpat E., Tübitak yayın teşvik ödülü 2, Tübitak, February 2021
Bayram E., Kır Arpat E., Mutlu G., Gazi Üniversitesi Bilimsel Yayınları Teşvik Ödülü, Gazi Üniversitesi, April 2018
Bayram E., Kır Arpat E., Mutlu G., TÜBİTAK Yayın Teşvik Ödülü, Tübitak, March 2018
Kır Arpat E., Mutlu G., TÜBİTAK Yayın Teşvik Ödülü, Tübitak, February 2017

Kır Arpat E., Mutlu G., Gazi Üniversitesi Bilimsel Yayınları Teşvik Ödülü, Gazi Üniversitesi , April 2016