

## Assoc. Prof. Özlem BAKŞI

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-2423-8676

Yoksis Researcher ID: 174325

### Education Information

Doctorate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, Turkey 1994 - 1999

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik, Turkey 1992 - 1994

Undergraduate, Ytu, Fen Edebiyat, Matematik, Turkey 1988 - 1992

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Sınırsız Operatör Katsayılı Sturm-Liouville Denkleminin İz Formülü, Yıldız Teknik Üniversitesi, Matematik, Analiz Ve Fonksiyonlar Teorisi, 1999

Postgraduate, 2-Dizayn ve 3-Dizayn ların İncelenmesi, Yıldız Teknik Üniversitesi, Matematik, Cebir Ve Sayılar Teorisi, 1994

### Research Areas

Mathematics, Differential Equations, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2023 - Continues

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2017 - 2023

Assistant Professor, The Ohio State University, Collage of Art and Science, Department of Mathematics, 2016 - 2017

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2006 - 2016

Lecturer PhD, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2000 - 2006

Research Assistant, Yildiz Technical University, Fen Edebiyat Fakultesi, Matematik, 1993 - 2000

## Courses

Matematik 2, Undergraduate, 2021 - 2022

Lineer Cebir, Undergraduate, 2022 - 2023

Kompleks Fonksiyonlar Teorisi 1 , Undergraduate, 2022 - 2023, 2021 - 2022

Diferansiyel Denklemler, Undergraduate, 2021 - 2022

Fourier Analizi, Postgraduate, 2021 - 2022

Matematik 1, Undergraduate, 2021 - 2022

## Jury Memberships

Academic Staff Examination, Yüksek Lisans İngilizce Matematik Sınavı, Matematik Bölümü Yüksek Lisans Sınavı, May, 2018

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Trace regularization problem for a fourth-order differential operator on separable Banach space**  
BAKŞI Ö., SEZER Y., Caliskan S.  
Mathematical Methods in the Applied Sciences, 2024 (SCI-Expanded)
- II. **Asymptotic formula for the sum of eigenvalues of fourth order differential operator on Banach space**  
BAKŞI Ö., SEZER Y.  
Filomat, vol.38, no.17, pp.6059-6086, 2024 (SCI-Expanded)
- III. **Asymptotic Behaviour of Negative Eigenvalues of an Operator Differential Equation**  
BAKŞI Ö.  
Filomat, vol.36, no.7, pp.2411-2426, 2022 (SCI-Expanded)
- IV. **The Second Regularized Trace of Even Order Differential Operators with Operator Coefficient**  
Bakşi Ö., Sezer Y.  
FILOMAT, vol.36, no.4, pp.1069-1080, 2022 (SCI-Expanded)
- V. **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)
- VI. **BASIS PROPERTIES OF  $p$ -EXPONENTIAL FUNCTION OF LINDQVIST AND PEETRE TYPE**  
BAKŞI Ö., Gurka P., Lang J., Mendez O.  
MATHEMATICAL INEQUALITIES & APPLICATIONS, vol.21, no.4, pp.1003-1013, 2018 (SCI-Expanded)
- VII. **STRICT S-NUMBERS OF THE VOLTERRA OPERATOR**  
BAKŞI Ö., Khan T., Lang J., Musil V.  
PROCEEDINGS OF THE AMERICAN MATHEMATICAL SOCIETY, vol.146, no.2, pp.723-731, 2018 (SCI-Expanded)
- VIII. **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)
- IX. **Basis properties of Lindqvist-Peetre functions in  $L-r(0,1)(n)$**   
Bakasi O., Gurka P., Lang J., Mendez O.  
REVISTA MATEMATICA COMPLUTENSE, vol.30, no.1, pp.1-12, 2017 (SCI-Expanded)
- X. **The third regularized trace formula for the Sturm-Liouville operator with the bounded operator coefficient**  
Baksi O., Adiguzelov E.

## Articles Published in Other Journals

- I. **TRACE REGULARIZATION PROBLEM FOR HIGHER ORDER DIFFERENTIAL OPERATOR**  
Sezer Y., Bakşı Ö., Karayel S.  
Maltepe Journal of Mathematics, vol.2, no.1, pp.27-37, 2020 (Peer-Reviewed Journal)
- II. **The Regularized Trace of Two Terms Differential Operator in the Space  $H_1 = L_2(0, \infty)$**   
BAKŞI Ö.  
İğdir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.9, pp.1594-1605, 2019 (Peer-Reviewed Journal)
- III. **The sum of subtraction of the eigenvalues of two self-adjoint differential operators with unbounded operator coefficient**  
Karayel S., Bakşı Ö., Sezer Y.  
International Journal of Pure and Applied Mathematics, vol.3, no.63, pp.255-268, 2010 (Peer-Reviewed Journal)
- IV. **Sonlu Aralıkta Verilmiş İkinci Mertebeden Bir Diferansiyel Operatörün Negatif Özdeğerlerinin Toplamı İçin Asimtotik Formül**  
Bakşı Ö., Sedi İ.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.23, no.4, pp.87-98, 2005 (ESCI)
- V. **On a regularized trace of a differential operator with bounded operator coefficient**  
BAKŞI Ö., BAYKAL ÜNAL O., ADIGÜZELOV E.  
International Mathematical Journal, vol.3, no.5, pp.273-286, 2004 (Peer-Reviewed Journal)
- VI. **On the Regularized Trace of the Differential Operator Equation Given in Finite Interval Operator**  
Ehliman A., Bakşı Ö.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.1, no.1, pp.47-55, 2004 (ESCI)
- VII. **The Asymptotic Behaviour of the Negative Part of The Spectrum of Sturm Liouville Operator with the Operator Coefficient which has singularity**  
EHLİMAN A., BAKŞI Ö., BAYRAMOV A.  
International Journal of Differential Equations and Applications, pp.315-329, 2002 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Trace Regularization Problem for a Fourth Order Differential Operator on Separable Banach Space**  
Bakşı Ö., Sezer Y., Kızılbudak Çalışkan S.  
ICOMAA 2024 7th International HYBRID Conference on Mathematical Advances and Applications, İstanbul, Turkey, 8 - 11 May 2024, pp.148
- II. **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
- III. **The Second Regularized Trace of Even Order Differential Operators with Operator Coefficient**  
BAKŞI Ö., SEZER Y.  
Fourth International Conference of Mathematical Sciences (ICMS 2020), İstanbul, Turkey, 21 June 2020, vol.1, pp.39
- IV. **On the Identities of Generalized Trigonometric Functions**  
BAKŞI Ö.  
4th International Conference on Pure and Applied Sciences: Renewable Energy, İstanbul, Turkey, 23 - 25 November 2017
- V. **On the basis properties of generalized trigonometric functions of Lindqvist-Peetre type in the Lebesgue space  $L_r(0,1)^n$**   
Bakşı Ö.

Banach Spaces and Operator Theory with Applications, Poznan, Poland, 3 - 07 July 2017

- VI. **Some inequalities about the eigenvalues of a two terms differential operator and the sum of the eigenvalues of that operator**  
Bakşı Ö.  
The Eighth Congress of Romanian Mathematicians, Iasi, Romania, 1 - 05 June 2015, pp.5
- VII. **On the Regularized Trace of an Operator which has Purely-discrete Spectrum**  
BAKŞI Ö.  
10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 01 July 2014
- VIII. **On the Trace of an Even Order Differential Operator**  
BAKŞI Ö.  
ICREA Conference on Approximation Theory and Fourier Analysis, 01 December 2011
- IX. **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
- X. **Sınırlı Operatör Katsayılı İki Terimli Bir Diferansiyel Operatör İçin İz Formülü**  
BAKŞI Ö.  
5. Ankara Matematik Günleri, 01 June 2010
- XI. **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
- XII. **On the Asymptotic Behaviour of the Negative Part of Second Order Differential Operator**  
BAKŞI Ö.  
International Conference of Mathematical Science, 01 August 2009
- XIII. **On the Asymptotic Behaviour of the Sum of the Negative Eigenvalues of a Differential Operator Given in Semi-Axis**  
Bakşı Ö.  
Fifth International Conference of Applied Mathematics and Computing, İstanbul, Turkey, 1 - 08 August 2008, pp.5-6
- XIV. **İkinci Mertebeden Operatör Katsayılı Bir Diferansiyel Operatörün Düzenli İzinin Hesaplanması**  
Adıgüzelov E., Bakşı Ö.  
XI. Ulusal Matematik Sempozyumu, Isparta, Turkey, 7 - 11 September 1998, pp.5

## Scientific Refereeing

Esitsizlikler ve uygulamalar dergisi, SCI Journal, November 2015

Fark Denklemlerinde İleri Düzey, SCI Journal, October 2015

## Tasks In Event Organizations

Bakşı Ö., International Conference on Mathematical Advances and Applications, Scientific Congress, İstanbul, Turkey, Mayıs 2018

## Mobility Activity

Sabbatical Leave, Post Doc, The Ohio State University, United States Of America, 2016 - 2017

## Metrics

Publication: 31

Citation (WoS): 6

Citation (Scopus): 10

H-Index (WoS): 2

H-Index (Scopus): 2

## Congress and Symposium Activities

ICOMAA 2024 7th International HYBRID Conference on Mathematical Advances and Applications, Invited Speaker, İstanbul, Turkey, 2024

2nd International Workshop: Constructive Mathematical Analysis, Invited Speaker, Konya, Turkey, 2023

4th International Conference on Pure and Applied Sciences: Renewable Energy, Working Group, İstanbul, Turkey, 2017

Banach Spaces and Operator Theory with Applications, Attendee, Poznan, Poland, 2017

The Eighth Congress of Romanian Mathematicians, Working Group, Iasi, Romania, 2015

10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Working Group, Madrid, Spain, 2014

ICREA Conference on Approximation Theory and Fourier Analysis, Working Group, Barcelona, Spain, 2012

International Conference on Mathematical Sciences, Bolu, Working Group, Bolu, Turkey, 2010

5. Ankara Matematik Günleri, Working Group, Ankara, Turkey, 2010

International Conference of Mathematical Science, Working Group, İstanbul, Turkey, 2009

International Symposium on Analysis and Theory of Functions, Working Group, İstanbul, Turkey, 2009

Fifth International Conference of Applied Mathematics and Computing, Working Group, Plovdiv, Bulgaria, 2008

XI. Ulusal Matematik Sempozyumu, Working Group, Isparta, Turkey, 1998

## Awards

Bakşi Ö., Teşvik Ödülü , Yıldız Teknik Üniversitesi, Ytü, February 2012

## Non Academic Experience

The Ohio State University