

Prof. GÜLEN BAŞCANBAZ TUNCA

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: GOM-5644-2022

ScopusID: 56003910100

Yoksis Researcher ID: 10155

Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Matematik (Dr), Turkey 1989 - 1995

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Matematik (Yl) (Tezli), Turkey 1987 - 1989

Undergraduate, Ankara University, Fen Fakültesi, Matematik Bölümü, Turkey 1981 - 1986

Dissertations

Doctorate, Analitik ve meromorf fonksiyonların bir sınıf için integral gösterimi ve bu fonksiyonların nonselt-adjoint operatörlerin spektral teorisine uygulamaları, Ankara University, Fen Bilimleri Enstitüsü, Matematik (Dr), 1995

Postgraduate, Schlicht " fonksiyonlar teorisine ait bazı sonuçlar, Ankara University, Fen Bilimleri Enstitüsü, Matematik (Yl) (Tezli), 1989

Research Areas

Mathematics, Functional Analysis, Real Functions, Functions of a Complex Variable, Approximations and Expansions, Natural Sciences

Academic Titles / Tasks

Professor, Ankara University, Fen Fakültesi, Matematik Bölümü, 2013 - Continues

Courses

KOMPLEKS FONKSİYONLAR TEORİSİ I, Undergraduate, 2018 - 2019, 2017 - 2018

ANALYSIS II, Undergraduate, 2018 - 2019

LİNEER POZİTİF OPERATÖRLERİN YAKLAŞIM ÖZELLİKLERİ II, Postgraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

KOMPLEKS FONKSİYONLAR TEORİSİ II, Undergraduate, 2018 - 2019

HARMONİK ANALİZ I, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

LİNEER POZİTİF OPERATÖRLERİN YAKLAŞIM ÖZELLİKLERİ I, Postgraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2007 - 2008

HARMONİK ANALİZ II, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2013 - 2014, 2012 - 2013

KOMPLEKS FONKSİYONLAR TEORİSİ II, Postgraduate, 2017 - 2018

MATEMATİK, Undergraduate, 2017 - 2018

Kompleks Fonksiyonlar Teorisi, Undergraduate, 2016 - 2017

DELTASAL ÇEKİRDEKLİ İNTEGRAL OPERATÖRLER, Undergraduate, 2016 - 2017, 2015 - 2016, 2013 - 2014

ANALİZ II, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014

MATEMATİK I, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2008 - 2009, 2007 - 2008

ANALİZ I, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014

MATEMATİK II, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2008 - 2009, 2007 - 2008

LİNEER POZİTİF OPERATÖRLERİN YAKLAŞIM ÖZELLİKLERİ II, Undergraduate, 2014 - 2015

DELTASAL ÇEKİRDEKLİ İNTEGRAL OPERATÖRLER, Postgraduate, 2014 - 2015, 2013 - 2014, 2011 - 2012, 2010 - 2011, 2008 - 2009

KOMPLEKS ANALİZ, Undergraduate, 2013 - 2014, 2012 - 2013

HARMONİK ANALİZ I, Postgraduate, 2011 - 2012

Advising Theses

BAŞCANBAZ TUNCA G., Pozitif lineer operatörler ile Korovkin-tipli yaklaşım, Postgraduate, M.AKÇAY(Student), 2016

BAŞCANBAZ TUNCA G., Bernstem polinomları ve lineer pozitif fonksiyoneller, Postgraduate, G.ANDAÇ(Student), 2015

BAŞCANBAZ TUNCA G., Kompleks q-Baskakov operatörleri ile yaklaşım, Doctorate, D.SÖYLEMEZ(Student), 2014

BAŞCANBAZ TUNCA G., Kompleks operatörlerin yaklaşım özellikleri, Doctorate, D.AYDIN(Student), 2013

BAŞCANBAZ TUNCA G., Genelleştirilmiş Picard operatörlerin bazı yaklaşım özellikleri, Doctorate, B.YILMAZ(Student), 2012

BAŞCANBAZ TUNCA G., Çeşitli operatörlerin bazı koruma özellikleri, Postgraduate, M.KART(Student), 2008

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **On Stancu Operators Depending on a Non-Negative Integer**
Bostanci T., Bascanbaz-Tunca G.
FILOMAT, vol.36, no.18, pp.6129-6138, 2022 (SCI-Expanded)
- II. **Voronovskaja-Type Quantitative Results for Differences of Positive Linear Operators**
Acu A. M., BAŞCANBAZ TUNCA G., Rasa I.
SYMMETRY-BASEL, vol.13, no.8, 2021 (SCI-Expanded)
- III. **BOUNDS FOR INDICES OF COINCIDENCE AND ENTROPIES**
Acu A., BAŞCANBAZ TUNCA G., Rasa I.
MATHEMATICAL INEQUALITIES & APPLICATIONS, vol.24, no.2, pp.307-321, 2021 (SCI-Expanded)
- IV. **Differences of Positive Linear Operators on Simplices**
Acu A., BAŞCANBAZ TUNCA G., Rasa I.
JOURNAL OF FUNCTION SPACES, vol.2021, 2021 (SCI-Expanded)
- V. **Information potential for some probability density functions**
Acu A., BAŞCANBAZ TUNCA G., Rasa I.
APPLIED MATHEMATICS AND COMPUTATION, vol.389, 2021 (SCI-Expanded)
- VI. **On Multivariate Bleimann, Butzer and Hahn Operators**
Soylemez D., Ari D. A., BAŞCANBAZ TUNCA G.
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.17, no.6, 2020 (SCI-Expanded)

- VII. **Approximation by certain linking operators**
Acu A., BAŞCANBAZ TUNCA G., Cetin N.
ANNALS OF FUNCTIONAL ANALYSIS, vol.11, no.4, pp.1184-1202, 2020 (SCI-Expanded)
- VIII. **Approximation by Complex Perturbed Bernstein-Type Operators**
Acu A., BAŞCANBAZ TUNCA G.
RESULTS IN MATHEMATICS, vol.75, no.3, 2020 (SCI-Expanded)
- IX. **Quantitative estimates for bivariate Stancu operators**
BAŞCANBAZ TUNCA G., ERENÇİN A., OLGUN A.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.42, no.16, pp.5241-5250, 2019 (SCI-Expanded)
- X. **Bivariate Cheney-Sharma operators on simplex**
BAŞCANBAZ TUNCA G., ERENÇİN A., İNCE İLARSLAN H. G.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.47, no.4, pp.793-804, 2018 (SCI-Expanded)
- XI. **On discrete Picard operators**
ARAL A., İNCE İLARSLAN H. G., BAŞCANBAZ TUNCA G.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.39, no.18, pp.5140-5148, 2016 (SCI-Expanded)
- XII. **Convergence in Variation for Bernstein-Type Operators**
İNCE İLARSLAN H. G., BAŞCANBAZ TUNCA G.
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.13, no.5, pp.2577-2592, 2016 (SCI-Expanded)
- XIII. **Bivariate Bernstein type operators**
BAŞCANBAZ TUNCA G., İNCE İLARSLAN H. G., ERENÇİN A.
APPLIED MATHEMATICS AND COMPUTATION, vol.273, pp.543-552, 2016 (SCI-Expanded)
- XIV. **ON A SEQUENCE OF KANTOROVICH TYPE OPERATORS VIA RIEMANN TYPE q -INTEGRAL**
BAŞCANBAZ TUNCA G., ERENÇİN A., TAŞDELEN YEŞİLDAL F.
BULLETIN OF THE KOREAN MATHEMATICAL SOCIETY, vol.51, no.2, pp.303-315, 2014 (SCI-Expanded)
- XV. **APPROXIMATION BY COMPLEX q BASKAKOV OPERATORS IN COMPACT DISKS**
SÖYLEMEZ ÖZDEN D., BAŞCANBAZ TUNCA G., ARAL A.
Analele Universit  ii Oradea Fasc. Matematica, vol.21, no.1, pp.167-181, 2014 (SCI-Expanded)
- XVI. **REMARK ON WEIGHTED APPROXIMATION PROPERTIES OF GENERALIZED PICARD OPERATORS**
Yilmaz B., BAŞCANBAZ TUNCA G., Aral A.
MISKOLC MATHEMATICAL NOTES, vol.14, no.3, pp.1091-1103, 2013 (SCI-Expanded)
- XVII. **On a Chlodovsky variant of a multivariate beta operator**
BAŞCANBAZ TUNCA G., Tuncer Y.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.235, no.16, pp.4816-4824, 2011 (SCI-Expanded)
- XVIII. **WEIGHTED APPROXIMATION PROPERTIES OF GENERALIZED PICARD OPERATORS**
Yilmaz B., Aral A., BAŞCANBAZ TUNCA G.
JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, vol.13, no.3, pp.499-513, 2011 (SCI-Expanded)
- XIX. **APPROXIMATION PROPERTIES OF A CLASS OF LINEAR POSITIVE OPERATORS IN WEIGHTED SPACES**
ERENÇİN A., BAŞCANBAZ TUNCA G.
COMPTES RENDUS DE L ACADEMIE BULGARE DES SCIENCES, vol.63, no.10, pp.1397-1404, 2010 (SCI-Expanded)
- XX. **Approximation of functions of two variables by certain linear positive operators**
Tasdelen F., Olgun A., BAŞCANBAZ TUNCA G.
PROCEEDINGS OF THE INDIAN ACADEMY OF SCIENCES-MATHEMATICAL SCIENCES, vol.117, no.3, pp.387-399, 2007 (SCI-Expanded)
- XXI. **Spectral expansion of a non-self-adjoint differential operator on the whole axis**
Bascanbaz-Tunca G.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.252, no.1, pp.278-297, 2000 (SCI-Expanded)
- XXII. **Discrete spectrum and principal functions of non-selfadjoint differential operator**
Tunca G., BAYRAM E.
CZECHOSLOVAK MATHEMATICAL JOURNAL, vol.49, no.4, pp.689-700, 1999 (SCI-Expanded)

Articles Published in Other Journals

- I. **Brass-Stancu-Kantorovich operators on a Hypercube***
BAŞCANBAZ TUNCA G., Gonska H.
Dolomites Research Notes on Approximation, vol.17, no.2, pp.14-21, 2024 (ESCI)
- II. **ON BIVARIATE JAIN OPERATORS**
Akçay M., BAŞCANBAZ TUNCA G.
MATHEMATICAL FOUNDATIONS OF COMPUTING, vol.5, no.3, pp.173-185, 2022 (ESCI)
- III. **Approximation properties of bivariate Jain operators**
AKÇAY M., BAŞCANBAZ TUNCA G.
An. Univ. Oradea Fasc. Mat., vol.29, no.1, pp.135-143, 2022 (Peer-Reviewed Journal)
- IV. **APPROXIMATION BY JAIN-SCHURER OPERATORS**
Cetin N., BAŞCANBAZ TUNCA G.
FACTA UNIVERSITATIS-SERIES MATHEMATICS AND INFORMATICS, vol.35, no.5, pp.1343-1356, 2020 (ESCI)
- V. **APPROXIMATION BY A NEW COMPLEX GENERALIZED BERNSTEIN OPERATOR**
Çetin N., BAŞCANBAZ TUNCA G.
Analele Universităţii din Oradea. Fascicola Matematică, vol.26, no.2, pp.129-141, 2019 (Peer-Reviewed Journal)
- VI. **QUANTITATIVE ESTIMATES FOR MODIFIED BETA OPERATORS**
BAŞCANBAZ TUNCA G., ERENÇİN A., İNCE İLARSLAN H. G.
MATEMATICKI VESNIK, vol.71, no.4, pp.359-367, 2019 (ESCI)
- VII. **A Stancu type extension of Cheney and Sharma operators**
Bostancı T., BAŞCANBAZ TUNCA G.
J. Numer. Anal. Approx. Theory, vol.47, no.2, pp.124-134, 2018 (Peer-Reviewed Journal)
- VIII. **On Lupas-Jain operators**
BAŞCANBAZ TUNCA G., Bodur M., Soylemez D.
STUDIA UNIVERSITATIS BABES-BOLYAI MATHEMATICA, vol.63, no.4, pp.525-537, 2018 (ESCI)
- IX. **Complex operators generated by q -Bernstein polynomials, $q \geq 1$**
BAŞCANBAZ TUNCA G., Cetin N., Gal S. G.
STUDIA UNIVERSITATIS BABES-BOLYAI MATHEMATICA, vol.61, no.2, pp.169-176, 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**
BAŞCANBAZ TUNCA G., KIR ARPAT E.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.1, pp.135-142, 2016 (ESCI)
- XI. **Some properties of Bernstein type Cheney and Sharma Operators**
BAŞCANBAZ TUNCA G., ERENÇİN A., TAŞDELEN F.
GENERAL MATHEMATICS, vol.24, pp.17-25, 2016 (Peer-Reviewed Journal)
- XII. **Some preservation properties of MKZ-Stancu type operators**
ERENÇİN A., BAŞCANBAZ TUNCA G., TAŞDELEN YEŞİLDAL F.
Sarajevo Journal of Mathematics, vol.10, no.1, pp.93-102, 2014 (Peer-Reviewed Journal)
- XIII. **Some properties of the operators defined by Lupaş**
ERENÇİN A., BAŞCANBAZ TUNCA G., TAŞDELEN YEŞİLDAL F.
Revue D'Analyse Numérique et de Théorie de L'approximation, vol.43, no.2, pp.168-174, 2014 (Peer-Reviewed Journal)
- XIV. **ON A NEW TYPE BERNSTEIN STANCU OPERATORS**
TAŞDELEN YEŞİLDAL F., BAŞCANBAZ TUNCA G., ERENÇİN A.
FASCICULI MATHEMATICI, vol.48, pp.119-128, 2012 (Peer-Reviewed Journal)
- XV. **Kantorovich type q Bernstein Stancu Operators**
ERENÇİN A., BAŞCANBAZ TUNCA G., TAŞDELEN YEŞİLDAL F.
Stud. Univ. Babes-Bolyai Math., vol.57, no.1, pp.89-105, 2012 (Peer-Reviewed Journal)
- XVI. **On Chlodovsky Form of the Meyer König and Zeller Operators 2 2011 137 144**
BAŞCANBAZ TUNCA G., TAŞDELEN YEŞİLDAL F.

Analele Universității de Vest, Timișoara Seria Matematică – Informatică, vol.49, no.2, pp.137-144, 2011 (Peer-Reviewed Journal)

- XVII. **A spectral expansion for Schrödinger operator**
BAŞCANBAZ TUNCA G.
Proyecciones, vol.25, no.1, pp.63-78, 2006 (Scopus)
- XVIII. **Spectral properties of a non selfadjoint system of differential equations with a spectral parameter in the boundary condition**
KIR ARPAT E., BAŞCANBAZ TUNCA G., YANIK C.
PROYECCIONES, vol.24, no.24, pp.49-63, 2005 (Peer-Reviewed Journal)
- XIX. **Spectral properties of the Klein-Gordon s-wave equation with spectral parameter-dependent boundary condition**
BAŞCANBAZ TUNCA G.
International Journal of Mathematics and Mathematical Sciences, vol.2004, no.27, pp.1437-1445, 2004 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Approximation of fractional derivatives by Brass-Stancu operators**
BAŞCANBAZ TUNCA G., ERENÇİN A., GÜVENİLİR A. F.
17th International Conference on Applied Mathematics and Computer Science, Cluj-Napoca, Romania, 11 - 14 July 2023
- II. **On Kantorovich Variant of Brass-Stancu Operators**
Bodur M., Bostancı T., Başcanbaz Tunca G.
2nd International E-Conference on Mathematical and Statistical Science: A Selcuk Meeting, Konya, Turkey, 5 - 07 June 2023
- III. **Generalized Kantorovich Operators on Multidimensional Hypercube**
BAŞCANBAZ TUNCA G.
The International Conference on Approximation Theory and its Applications, Sibiu, Romania, 12 September 2022
- IV. **Kantorovich Operatörlerinin Bazı Genelleştirilmeleri ve Yaklaşım Özellikleri**
Başcanbaz Tunca G.
Yaklaşımlar Teorisi ve Uygulamaları Çalıştayı (<https://yaklasimlarteorisi.com/participant>), Ankara, Turkey, 4 - 05 March 2022
- V. **ON A NEW TYPE STANCU OPERATORS**
BAŞCANBAZ TUNCA G., ERENÇİN A.
The 8th International Conference on Pure and Applied Mathematics (ICPAM 2019), 22 - 25 July 2019
- VI. **On Cheney and Sharma operators**
BAŞCANBAZ TUNCA G., ERENÇİN A.
2018 The 7th International Conference on Pure and Applied Mathematics (ICPAM 2018), 10 - 13 July 2018
- VII. **Generalized Lupas Operators**
İNCE İLARSLAN H. G., ARAL A., BAŞCANBAZ TUNCA G.
6th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA), Budapest, Hungary, 15 - 17 August 2017, vol.1926
- VIII. **An Extension of Stancu Operator**
BOSTANCI T., BAŞCANBAZ TUNCA G.
Approximation and Computation – Theory and Applications (ACTA 2017), Belgrade, Serbia, 30 November - 02 December 2017
- IX. **Some properties of Bernstein Type Cheney and Sharma operators**
BAŞCANBAZ TUNCA G., ERENÇİN A., TAŞDELEN YEŞİLDAL F.
12th International Conference on Approximation Theory and its Applications, ICATA 2016, Sibiu, Romania, 26 - 29 May 2016
- X. **A new generalization of Lupas operators**

BAŞCANBAZ TUNCA G., BODUR M., SÖYLEMEZ ÖZDEN D.

15th International Conference on Applied Mathematics and Computer Science, Cluj-Napoca, Romania, 5 - 07 July 2016

XI. Convergence in variation for Bernstein type operators

İNCE İLARSLAN H. G., BAŞCANBAZ TUNCA G.

The Fourteenth International Conference on Mathematics and its Applications, ICMA 2015, Timișoara, Romania, Timisoara, Romania, 5 - 07 November 2015

XII. A generalization of Post Widder operators based on q integers

AYDIN D., ARAL A., BAŞCANBAZ TUNCA G.

RoGer 2014, 29 May - 01 June 2014

Metrics

Publication: 53

Citation (WoS): 104

Citation (Scopus): 103

H-Index (WoS): 6

H-Index (Scopus): 6

Congress and Symposium Activities

The 8th International Conference on Pure and Applied Mathematics (ICPAM 2019), Invited Speaker, Brussels, Belgium, 2019

The 7th International Conference on Pure and Applied Mathematics (ICPAM 2018), Invited Speaker, Budapest, Hungary, 2018

International Conference on Mathematics (ICOM 2018), Invited Speaker, İstanbul, Turkey, 2018

6th International Eurasian Conference on Mathematical Sciences and Applications, IECMSA 2017, Audience, Budapest, Hungary, 2017

15th International Conference on Applied Mathematics and Computer Science, Invited Speaker, Cluj-Napoca, Romania, 2016

The 12 th International Conference on Approximation Theory and its Applications (ICATA 2016), Invited Speaker, Sibiu, Romania, 2016

The Fourteenth International Conference on Mathematics and its Applications (ICMA 2015), Invited Speaker, Timisoara, Romania, 2015

RoGer 2014, Invited Speaker, Sibiu, Romania, 2014

2nd International Eurasian Conference on Mathematical Sciences and Applications (IECMSA 2013), Invited Speaker, Sarajevo, Bosnia And Herzegovina, 2013

ICCAM 2009 Congress, 14 th International Congress Computational and Applied Mathematics, Invited Speaker, Antalya, Turkey, 2009

ICCAM 2009 Congress, 14 th International Congress Computational and Applied Mathematics, Invited Speaker, Antalya, Turkey, 2009

Proceedings of the 8th WSEAS International Conference on APPLIED MATHEMATICS, Invited Speaker, Tenerife, Spain, 2005