Asst. Prof. EMEK DEMİRCİ AKARSU

Personal Information

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International Researcher IDs
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Yoksis Researcher ID: 221826

Education Information

Post Doctorate, Carleton University, Faculty Of Science, Canada 2016 - 2017
Post Doctorate, University of Bristol, Faculty of Science, England 2014 - 2014
Doctorate, University of Bristol, Faculty Of Science, United Kingdom 2010 - 2014
Postgraduate, University of London-Queen Mary and Westfield College, Faculty Of Science, United Kingdom 2008 - 2009
Undergraduate, Mugla Sitki Kocman University, Turkey 2001 - 2005

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Vocational Training, Summer School on Homogeneous Dynamics, Korean Institute of Advance Studies, 2013
Vocational Training, Spectral Theory and its applications, LMS-EPSRC, University College of London, 2011
Vocational Training, Ergodic Theory and Arithmetic Dynamics, Queen Mary, University of London, 2010
Foreign Language, Yabancı Dil Kursu, Milli Eğitim Bakanlığı, 2007

Dissertations

Doctorate, Rational points on horocycles and incomplete Gauss sums, University of Bristol, Faculty Of Science, School Of Mathematics, 2014
Postgraduate, Graph homomorphisims and automorphisims, University of London-Queen Mary and Westfield College, Science Faculty, School Of Mathematics, 2009

Research Areas

Mathematics, Field Theory and Polynomials, Dynamic Systems and Ergodic Theory, General Algebraic Systems, Combinatorics, Probability Theory, Stochastic Processes, Number Theory, Natural Sciences

Academic Titles / Tasks

Assistant Professor, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2018 - Continues
Assistant Professor, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2017 - 2018
Researcher, Carleton University, Faculty Of Science, Mathematics, 2016 - 2017
Lecturer PhD, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2014 - 2017
Researcher, University of Bristol, Faculty Of Science, Mathematics, 2014 - 2014

Courses

Finite Fields, Doctorate, 2021 - 2022, 2019 - 2020
Sayılar Teorisinden Secme Konular, Postgraduate, 2021 - 2022, 2020 - 2021, 2018 - 2019
Uzmanlık Alan Dersi II, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019
Abstract Algebra II, Undergraduate, 2020 - 2021, 2015 - 2016
Discrete Mathematics, Undergraduate, 2021 - 2022
Çarpımsal Sayılar Teorisi, Doctorate, 2021 - 2022, 2020 - 2021
Uygulamalı Lineer Cebir, Undergraduate, 2020 - 2021, 2019 - 2020
Soyut Cebir I, Undergraduate, 2021 - 2022, 2017 - 2018
Fark Kümeleri, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020
Uzmanlık Alan Dersi I, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020
Uzmanlık Alan Dersi I, Doctorate, 2021 - 2022, 2020 - 2021, 2019 - 2020
Sayılar Teorisi Uygulamalar, Postgraduate, 2020 - 2021, 2018 - 2019
Tez, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019
Cebirsel Sayı Cisimlerine Giriş, Doctorate, 2020 - 2021
Seminer, Postgraduate, 2019 - 2020
Matematik, Associate Degree, 2020 - 2021
Sayılar Teorisi, Undergraduate, 2019 - 2020, 2017 - 2018
Abstract mathematics I, Undergraduate, 2020 - 2021
Genel Matematik II, Undergraduate, 2018 - 2019
Mali matematik, Undergraduate, 2018 - 2019
Sayılar Teorisi II, Undergraduate, 2018 - 2019, 2015 - 2016
Lineer Cebir II, Undergraduate, 2018 - 2019
Soyut Cebir II, Undergraduate, 2017 - 2018
Lineer Cebir I, Undergraduate, 2018 - 2019
Cisim Genislemeleri, Undergraduate, 2018 - 2019
Genel Matematik I, Undergraduate, 2018 - 2019
Linear algebra and its applications, Undergraduate, 2016 - 2017
Latex2e, Undergraduate, 2015 - 2016
Mühendislik Matematiği II, Undergraduate, 2015 - 2016
Ticari Matematik ve İstatistik, Associate Degree, 2015 - 2016
Grup Teoriden Seçme konular, Undergraduate, 2015 - 2016
Mühendislik Matematiği I, Undergraduate, 2015 - 2016

Advising Theses

Demirci Akarsu E., Fark Kümelerinin Kodlamadaki Uygulamaları, Postgraduate, K.Bayrak(Student), Continues
Demirci Akarsu E., Fark kümeleri ve grup karakterleri, Postgraduate, B.Demir(Student), Continues
Demirci Akarsu E., Hemen Hemen Fark Kümeleri, Doctorate, T.Navdar(Student), Continues
Demirci Akarsu E., Döngüsel sınıflardan Fark Kümesi Elde Etme, Postgraduate, Y.Yılmaz(Student), 2022

Demirci Akarsu E., Fark kumelerının varlık problemı ve BRC Teoremı, Postgraduate, S.Ozturk(Student), 2020

Demirci Akarsu E., FARK KUMELERI VE IKILI DIZI OLUSTURMADAKI UYGULAMALARI, Postgraduate, T.Navdar(Student), 2019

Jury Memberships

Doctoral Examination, Doctoral Examination, Recep Tayyip Erdoğan Üniversitesi, January, 2024

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Recep Tayyip Erdoğan Üniversitesi, June, 2022

Post Graduate, Post Graduate, Recep Tayyip Erdoğan Üniversitesi, June, 2022

Doctoral Examination, Doctoral Examination, Recep Tayyip Erdoğan Üniversitesi, January, 2022

Post Graduate, Post Graduate, Recep Tayyip Erdoğan Üniversitesi, August, 2020

Post Graduate, Post Graduate, Recep Tayyip Erdoğan Üniversitesi, January, 2020

Post Graduate, Post Graduate, Recep Tayyip Erdoğan Üniversitesi, January, 2020

Post Graduate, Post Graduate, Recep Tayyip Erdoğan Üniversitesi, July, 2019

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Random process generated by the incomplete Gauss sums**
Demirci Akarsu E.
TURKISH JOURNAL OF MATHEMATICS, vol.39, pp.527-537, 2015 (SCI-Expanded)

II. **Short incomplete Gauss sums and rational points on metaplectic horocycles**
Akarsu E.
INTERNATIONAL JOURNAL OF NUMBER THEORY, vol.10, pp.1553-1576, 2014 (SCI-Expanded)

III. **THE VALUE DISTRIBUTION OF INCOMPLETE GAUSS SUMS**
Akarsu E., Marklof J.
MATHEMATIKA, vol.59, pp.381-398, 2013 (SCI-Expanded)

Articles Published in Other Journals

I. **Difference Sets from Quadratic Residues**
Demirci Akarsu E., Yılmaz Y.
Erciyes Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.39, no.2, pp.235-240, 2023 (Peer-Reviewed Journal)

II. **Twin prime difference sets and its application on a coded mask**
Demirci Akarsu E., Navdar Günay T.
Discrete Mathematics, Algorithms and Applications, vol.15, no.6, pp.1-13, 2023 (ESCI)

III. **The existence problem of difference sets**
Demirci Akarsu E., Öztürk S.
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.12, no.3, pp.917-922, 2022 (Peer-Reviewed Journal)

IV. **An Existing Problem for Symmetric Design: Bruck Ryser Chowla Theorem**
Demirci Akarsu E., Öztürk S.
Sakarya Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.26, no.2, pp.241-248, 2022 (Peer-Reviewed Journal)

V. **Rationals on long closed horocycles**
Demirci Akarsu E.
New Trends in Mathematical Sciences, vol.8, no.1, pp.86-93, 2020 (Peer-Reviewed Journal)

Books & Book Chapters

I. **Difference Sets and Character Sums**
   Demirci Akarsu E.
   in: Recent Approaches in Mathematics and Natural Science, Prof. Dr. M. Çiğdem SAYIL, Editor, Livre de Lyon, Lyon, pp.149-167, 2022
II. **Almost Difference Sets and Cyclotomy**
   Demirci Akarsu E.
   in: Academic studies in science and mathematics, Duygu Balpetek Kulcu, Editor, Platanus publishing, İzmir, pp.143-159, 2021

Refereed Congress / Symposium Publications in Proceedings

I. **Difference sets: an application over twin primes**
   Demirci Akarsu E., Navdar Günay T.
   4th international conference on mathematical advances and applications, İstanbul, Turkey, 26 - 29 May 2021, pp.200
II. **Random process generated by the short incomplete Gauss sums**
   Demirci Akarsu E.
   2nd International Conference on pure and applied mathematics, Van, Turkey, 11 - 13 September 2018, pp.1
III. **Rationals on horocycles on the surface of the unit tangent bundle**
   DEMİRCİ AKARSU E.
   International Conference on Mathematics (ICOM'18, 3 - 06 July 2018
IV. **Rationals on Long Closed Horocycles on the Modular Surface**
   Demirci Akarsu E.
   International Conference on Mathematics (ICOM'18, İstanbul, Turkey, 3 - 06 July 2018

Other Publications

I. **Rational points on horocycles and incomplete Gauss sums**
   Demirci Akarsu E.
   Other, pp.1-125, 2014

Supported Projects

DEMİRCİ AKARSU E., NAVDAR GÜNAY T., Project Supported by Higher Education Institutions, Fark kümeleri ve ikili dizi oluşturmadaki uygulamaları, 2018 - 2019

Scientific Refereeing

Journal of Engineering Technology and Applied Sciences, Other Indexed Journal, January 2024
MAEJO INTERNATIONAL JOURNAL OF SCIENCE AND TECHNOLOGY, Journal Indexed in SCI-E, August 2023
Project Supported by Higher Education Institutions, BAP Research Project, Recep Tayyip Erdogan University, Turkey, September 2020
Project Supported by Higher Education Institutions, BAP PhD, Akdeniz University, Turkey, July 2018

Metrics

Publication: 15

Citation (WoS): 15
Citation (Scopus): 19
H-Index (WoS): 2
H-Index (Scopus): 2

Congress and Symposium Activities

Konusmaci, 2nd International Conference on Pure and Applied Mathematics, Attendee, Van, Turkey, 2018
Konusmaci, International Conference on Mathematics, Attendee, İstanbul, Turkey, 2018
Poster sunumu, 3. Kadın Matematikçiler Derneği Çalıştayı, Attendee, İzmir, Turkey, 2016
Konuşmacı, Genel Matematik Seminer, Gebze Teknik Üniversitesi, Attendee, Kocaeli, Turkey, 2015
Konuşmacı, Genel Matematik Seminer, Galatasaray Üniversitesi, Attendee, Turkey, 2015
Konuşmacı, Genel Matematik Seminer, İzmir Yüksek Teknoloji Enstitüsü, Attendee, İzmir, Turkey, 2015
Konuşmacı, Genel Matematik Seminer, Mimar Sinan Güzel Sanatlar Üniversitesi, Attendee, İstanbul, Turkey, 2015
Davetli konuşmacı, Enfant and Elephant Analytic Number Theory, Universitat Bonn, Attendee, Bonn, Germany, 2014
Limit Theorems for Dynamical Systems, Ecole Poliytechnique Federale de Lausanne, Attendee, Lausanne, Switzerland, 2013
Konuşmacı, Women in Mathematics Day, University of Cambridge, Attendee, Cambridge, United Kingdom, 2013
Konuşmacı, Equidistribution in Number Theory and Dynamics, Universitat Zürich, Attendee, Zürich, Switzerland, 2013
Arithmetic of L functions, University of Bristol, Attendee, Bristol, United Kingdom, 2012
Synergies and Vistas in Analytic Number Theory, University of Oxford, Attendee, Oxford, United Kingdom, 2012
Poster sunumu, Four Faces of Number Theory, Universitat Würzburg, Attendee, Würzburg, Germany, 2012
Konuşmacı, Canadian Number Theory Association XII, Lethbridge University, Attendee, Calgary, Canada, 2012
Konuşmacı, Young Researchers in Mathematics 2012, University of Bristol, Attendee, Bristol, United Kingdom, 2012
Women in Mathematics Day, London Mathematical Society, Attendee, London, United Kingdom, 2011

Scholarships

Erasmus Teaching Mobility, European Commission, 2022 - 2023
Erasmus Teaching Mobility, European Commission, 2019 - 2019
Posdoctoral Research Fellowship, University, 2016 - 2017
Posdoctoral Research Fellowship, University, 2014 - 2014
YLYS yurt dışı lisansüstü eğitim, Ministry of Education, 2006 - 2014

Awards

DEMİRCİ AKARSU E., Matematik Bölüm Birincliği, Muğla Universitesi Fen Edebiyat Fakültesi, February 2005
DEMİRCİ AKARSU E., 2001 yılı Türkiye ÖSS Sayısal 952. liği ödülü, Final Dergisi Dersaneleri, August 2001