

Assoc. Prof. Hatice BOYLAN

Personal Information

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International Researcher IDs

Publons / Web Of Science ResearcherID: AAE-3794-2020

Yoksis Researcher ID: 55392

Education Information

Post Doctorate, Max-Planck Institute for Mathematics, Max-Planck Institute for Mathematics, Max-Planck Institute for Mathematics, Germany 2016 - 2017

Post Doctorate, Max-Planck-Institut Für Mathematik, Mathematik, Number Theory, Germany 2012 - 2013

Post Doctorate, Rheinisch-Westfaelische Technische Hochschule Aachen, Mathematik, Informatik, Naturwissenschaften, Mathematik, Germany 2012 - 2012

Post Doctorate, Universitaet Siegen, Naturwissenschaftlich-Technische Fakultät, Mathematik, Germany 2011 - 2012

Doctorate, Universitaet Siegen, Naturwissenschaftlich-Technische Fakultät, Mathematik (Summa Cum Laude Derecesi İle), Germany 2007 - 2011

Postgraduate, Koc University, Faculty Of Science, Matematik, Turkey 2003 - 2005

Undergraduate, Bogazici University, Faculty Of Arts And Sciences, Matematik (Onur Derecesi İle), Turkey 1998 - 2003

Foreign Languages

English, C1 Advanced

German, B2 Upper Intermediate

Dissertations

Doctorate, Jacobi Forms, Finite Quadratic Modules and Weil Representations over Number Fields, Universitaet Siegen, Naturwissenschaftlich-Technische Fakultät, Matematik, 2011

Postgraduate, Cogalios Theory versus Galois Theory, Koc University, Fen Fakültesi, Matematik, 2005

Research Areas

Mathematics, Number Theory, Natural Sciences

Academic Titles / Tasks

Associate Professor, Istanbul University, Faculty of Science, Department of Mathematics, 2016 - Continues

Assistant Professor, Istanbul University, Faculty of Science, Department of Mathematics, 2012 - 2016

Academic and Administrative Experience

Erasmus Program Department Coordinator, Istanbul University, Faculty Of Science, Department Of Mathematics, 2021 - Continues

wissenschaftlicher Mitarbeiter, Rheinisch-Westfaelische Technische Hochschule Aachen, Fakultät für Mathematik, Informatik, Naturwissenschaften, Mathematik, 2012 - 2012

wissenschaftliche Hilfskraft und wissch. Mitarbeiter , Universitaet Siegen, Naturwissenschaftlich-Technische Fakultät , Mathematik, 2008 - 2012

Teaching Assistant, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Mathematics, 2005 - 2007

Teaching Asistant, Koc University, Faculty Of Science, Department Of Mathematics, 2003 - 2005

Courses

Coding Theory, Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2014 - 2015

Modular Forms, Postgraduate, 2024 - 2025, 2022 - 2023, 2021 - 2022

Discrete Mathematics , Undergraduate, 2023 - 2024

Elliptic Curves , Undergraduate, 2022 - 2023

COMPUTER I, Undergraduate, 2023 - 2024

Sayılar Teorisi II, Undergraduate, 2022 - 2023, 2015 - 2016

Mathematics II, Undergraduate, 2022 - 2023, 2021 - 2022

KOMBİNATORİK, Undergraduate, 2022 - 2023, 2021 - 2022

English for Students of Mathematics II, Undergraduate, 2021 - 2022

Non-Euclidean Geometry, Undergraduate, 2022 - 2023

English for Students of Mathematics I, Undergraduate, 2021 - 2022

Mathematics I, Undergraduate, 2021 - 2022

Analiz II, Undergraduate, 2020 - 2021

CEBİR I (Gruplar), Undergraduate, 2018 - 2019

Mathematics II, Undergraduate, 2017 - 2018

MATEMATİĞİN TEMELLERİ VE MANTIK I, Undergraduate, 2018 - 2019

Calculus II, Undergraduate, 2017 - 2018

Calculus I, Undergraduate, 2018 - 2019, 2017 - 2018

Quadratic Forms, Postgraduate, 2017 - 2018

Calculus I, Undergraduate, 2017 - 2018

Diskret Matematik, Undergraduate, 2017 - 2018

Representation Theory, Postgraduate, 2017 - 2018

Mathematics , Undergraduate, 2015 - 2016

Number Theory I, Undergraduate, 2015 - 2016

Number Theory I, Undergraduate, 2015 - 2016

Analitik Geometri, Undergraduate, 2014 - 2015

CEBİR III, Undergraduate, 2014 - 2015

Cebir III, Undergraduate, 2014 - 2015, 2013 - 2014

Lineer Cebir, Undergraduate, 2013 - 2014

Published journal articles indexed by SCI, SSCI, and AHCI

1. The adjoint of the nullwert map on Jacobi forms of lattice index

BOYLAN H.

Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg, 2024 (SCI-Expanded)

II. **Jacobi Eisenstein series over number fields**

Boylan H.

JOURNAL OF NUMBER THEORY, vol.248, pp.54-77, 2023 (SCI-Expanded)

III. **COUNTING ZEROS IN QUATERNION ALGEBRAS USING JACOBI FORMS**

Boylan H., Skoruppa N., Zhou H.

TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY, vol.371, no.9, pp.6487-6509, 2019 (SCI-Expanded)

IV. **A quick proof of reciprocity for Hecke Gauss sums**

Boylan H., Skoruppa N.

JOURNAL OF NUMBER THEORY, vol.133, no.1, pp.110-114, 2013 (SCI-Expanded)

V. **Linear characters of SL_2 over Dedekind domains**

Boylan H., Skoruppa N.

JOURNAL OF ALGEBRA, vol.373, pp.120-129, 2013 (SCI-Expanded)

VI. **Explicit formulas for Hecke Gauss sums in quadratic number fields**

Boylan H., Skoruppa N.

ABHANDLUNGEN AUS DEM MATHEMATISCHEN SEMINAR DER UNIVERSITÄT HAMBURG, vol.80, no.2, pp.213-226, 2010 (SCI-Expanded)

Books & Book Chapters

I. **Jacobi forms, finite quadratic modules and Weil representations over number fields**

Boylan H.

Springer, London/Berlin, London, 2015

Refereed Congress / Symposium Publications in Proceedings

I. **Hurwitz Class Numbers and Automorphic Forms, and an Extension to Number Fields**

Boylan H.

Journées Arithmétiques XXXI, İstanbul, Turkey, 1 - 05 July 2019, pp.33

II. **What are Jacobi forms and what are they good for?**

Boylan H.

BAHAR MATHEMATICS MEETING, İstanbul, Turkey, 24 - 25 February 2018, pp.2

III. **Hurwitz class numbers in the theory of automorphic forms, and an extension to totally real number fields**

Boylan H.

The Second Romanian-Turkish Mathematics Colloquium, İstanbul, Turkey, 25 - 29 October 2017, pp.1

IV. **Fourier coefficients of Jacobi Eisenstein series over number fields**

Boylan H.

Intercity Number Theory Seminar, Utrecht, Netherlands, 24 March 2017, pp.2

V. **Fourier coefficients of Jacobi Eisenstein series over number fields**

Boylan H.

48th Seminar Aachen-Bonn-Köln-Lille-Siegen on Automorphic Forms, Aachen, Germany, 30 November 2016, pp.2

VI. **Representations of SL_2 over rings of integers of local fields, and over arithmetic Dedekind domains.**

Boylan H.

Arithmetic and Low Dimensional Hyperbolic Spaces, İstanbul, Turkey, 27 June - 01 July 2016, pp.2-3

VII. **Representations of SL_2 over rings of integers of local fields, and over arithmetic Dedekind domains**

Boylan H.

Antalya Algebra Days XVIII, İzmir, Turkey, 18 - 22 May 2016, pp.8

- VIII. **Representations of $SL(2)$ over arithmetic Dedekind domains**
 Boylan H.
 28th Automorphic Forms Workshop, Utah, United States Of America, 12 - 16 May 2014, pp.3
- IX. **Representations of SL_2 over maximal orders in a number field**
 Boylan H.
 I. Kadin Matematikciler Calistayi, Kocaeli, Turkey, 2 - 04 May 2014, pp.5
- X. **Finite quadratic modules over number fields and their associated Weil representations**
 Boylan H.
 Automorphic Representations and Related Topics, Kyoto, Japan, 21 - 25 January 2013, vol.1871, pp.125-135
- XI. **Jacobi forms of lattice index (3 lecture serisi verildi)**
 Boylan H.
 Workshop and international conference on Automorphic forms and number theory , Kozhikkod, India, 30 August - 03 September 2013, pp.1
- XII. **Weil representations of Hilbert modular groups**
 Boylan H.
 Workshop on Modular Forms and Jacobi Forms, Joetsu, Japan, 11 - 12 June 2013, pp.3
- XIII. **Jacobi forms of singular weight whose index is maximal**
 Boylan H.
 27th Automorphic Forms Workshop, Dublin, Ireland, 11 - 14 March 2013, pp.5
- XIV. **Linear characters of Hilbert modular groups**
 Boylan H.
 26th Automorphic Forms Workshop, Vancouver, Canada, 26 - 29 April 2012, pp.9
- XV. **The linear characters of Hilbert modular groups and associated automorphic forms**
 Boylan H.
 International Workshop on Mathematics, Masqat, Oman, 18 - 22 February 2012, pp.9
- XVI. **Weil representations and Jacobi forms of singular weight over number fields**
 Boylan H.
 25th Automorphic Forms Workshop, Oregon, United States Of America, 23 - 26 March 2011, pp.4
- XVII. **Jacobi forms over number fields of singular weight**
 Boylan H.
 Durham Days on Modular Forms, Newcastle-Upon-Tyne, United Kingdom, 30 August - 03 September 2010, pp.1
- XVIII. **Jacobi forms over number fields with special emphasis on the case of singular weight (4 lecture serilesi verildi)**
 Boylan H.
 Jacobi forms and Siegel modular forms, Chennai, India, 23 November - 05 December 2009, pp.1
- XIX. **Hilbert-Jacobi Forms of Critical Weight on the Full Modular Group**
 Boylan H.
 23rd Annual Workshop on Automorphic Forms and Related Topics , Pennsylvania, United States Of America, 10 - 13 March 2009, pp.2

Supported Projects

BOYLAN H., Project Supported by Higher Education Institutions, Explicit formulas for Hecke Gauss sums of cubic fields, 2014 - 2017

BOYLAN H., Project Supported by Higher Education Institutions, Explicit determination of the linear characters of the twofold central extension of the general Hilbert modular groups, 2014 - 2017

Memberships / Tasks in Scientific Organizations

Türk Kadın Matematikçiler Derneği (TKMD), Member, 2014 - 2015, Turkey

Mathematical Sciences Research Institute (Berkeley), Member, 2011 - 2011, United States Of America

Scientific Refereeing

Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, July 2019

University of Istanbul Faculty of Science the Journal of Mathematics, Physics and Astronomy, New Series, Other Journals, June 2014

Mathematische Nachrichten, SCI Journal, November 2013

Scientific Consultations

RWTH Aachen, Other, Germany, 2012 - 2012

Tasks In Event Organizations

Uludağ A. M., Kurşungöz K., Değer Ö., Boylan H., Bassa A., Zeytin A., İkedo K. İ., İnam İ., Soydan G., Pekin A., Journées Arithmétiques XXXI, Scientific Congress, İstanbul, Turkey, Temmuz 2019

Boylan H., Number Theory Afternoon in Siegen, Workshop Organization, Siegen, Germany, Mayıs 2013

Boylan H., Number Theory Afternoon in Siegen, Workshop Organization, Siegen, Germany, Aralık 2012

Scientific Research / Working Group Memberships

Algebra And Number Theory Group, Universitaet Siegen, Germany, http://tea.countnumber.de/wise_1112/ant_seminar, 2008 - 2012

Arithmetic Statistics Workshop (At Msri), University of California, Berkeley, United States Of America, <http://www.msri.org/web/msri/scientific/show/-/event/Pm137>, 2011 - 2011

Metrics

Publication: 26

Citation (WoS): 3

Citation (Scopus): 15

H-Index (WoS): 2

H-Index (Scopus): 2

Congress and Symposium Activities

Journées Arithmétiques XXXI, Attendee, İstanbul, Turkey, 2019

Bahar Mathematics Meeting, Invited Speaker, İstanbul, Turkey, 2018

The Second Romanian-Turkish Mathematics Colloquium, Invited Speaker, İstanbul, Turkey, 2017

Koc Univ. Mathematics Seminar, Invited Speaker, İstanbul, Turkey, 2017

Intercity Number Theory Seminar, Invited Speaker, Utrecht, Netherlands, 2017

48th Seminar Aachen-Bonn-Köln-Lille-Siegen on Automorphic Forms, Invited Speaker, Aachen, Germany, 2016

Arithmetic and Low Dimensional Hyperbolic Spaces, Invited Speaker, İstanbul, Turkey, 2016

Antalya Algebra Days XVIII, Invited Speaker, İzmir, Turkey, 2016

Bogazici University Mathematics Colloquium, Invited Speaker, İstanbul, Turkey, 2015
Sabanci Univ. Dept. Seminars, Invited Speaker, İstanbul, Turkey, 2015
I. Kadın Matematikçiler Derneği Çalıştayı , Invited Speaker, Kocaeli, Turkey, 2014
Research Seminars (GSU), Invited Speaker, İstanbul, Turkey, 2013
Workshop and International Conference on Automorphic Forms and Number Theory, Invited Speaker, Kozhikkod, India, 2013
Mathematics Seminar (Waseda University), Invited Speaker, Tokyo, Japan, 2013
Workshop on Modular Forms and Jacobi Forms, Invited Speaker, Joetsu, Japan, 2013
Mathematics Seminar (Tokyo Bilim Universitesi), Invited Speaker, Tokyo, Japan, 2013
Number theory lunch seminar (at MPIM), Invited Speaker, Bonn, Germany, 2013
Mathematics Seminars (MSGSU), Invited Speaker, İstanbul, Turkey, 2013
Weekly Mathematics Seminar (Yeditepe Univ.), Invited Speaker, İstanbul, Turkey, 2013
K Theory, Quadratic Form and Number Theory Seminar Series (at UCD), Invited Speaker, Dublin, Ireland, 2013
Automorphic Representations and Related Topics, Invited Speaker, Kyoto, Japan, 2013
Istanbul Univ. Mathematics Colloquium, Invited Speaker, İstanbul, Turkey, 2012
Oberseminar Zahlentheorie (at Univ. zu Koeln), Invited Speaker, Cologne, Germany, 2012
Seminar Algebra (at TU Darmstadt), Invited Speaker, Darmstadt, Germany, 2012
Heilbronn Seminar (at Univ. of Bristol), Invited Speaker, Bristol, United Kingdom, 2012
Analysis Seminar (at RWTH Aachen), Invited Speaker, Aachen, Germany, 2012
Students Seminar (during Arithmetic Statistics Workshop), Invited Speaker, California, United States Of America, 2011
Durham Days on Modular Forms, Invited Speaker, Newcastle-Upon-Tyne, United Kingdom, 2010
Jacobi forms and Siegel modular forms, Invited Speaker, Chennai, India, 2009

Scholarships

Tübitak-Ulakbim Yayın Teşvik (Uluslararası Bilimsel Yayınları Teşvik Programı (UBYT)), TÜBİTAK, 2019 - 2019
Diesterweg Stipendium (Diesterweg Ziyaretçi Profesör Bursu), University, 2015 - 2015
Yurt İçi Doktora Burs Programı , TÜBİTAK, 2006 - 2010
Yurt Dışı Araştırma Burs Programı , TÜBİTAK, 2007 - 2008
Merit-based tam burs , Foundation, 2005 - 2007
Merit-based tam burs, Foundation, 2003 - 2005

Awards

Boylan H., Preis der Universität Siegen für einen Internationalen Nachwuchswissenschaftler, Universität Siegen, November 2012