

Dr Emek Demirci Akarsu

Contact Details

Recep Tayyip Erdogan University
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Appointments

Since December 2014	Lecturer, Recep Tayyip Erdogan University, Turkey
July 2014- December 2014	Visiting Research Fellow, University of Bristol, UK

Education

January 2010-March 2014	PhD in Mathematics, University of Bristol, UK Dissertation "Rational points on horocycles and incomplete Gauss sums" Supervised by Professor Jens Marklof
September 2008-September 2009	MSc in Mathematics, Queen Mary, University of London, UK Dissertation "Graph homomorphisms and automorphisms" Supervised by Professor Peter Cameron
September 2001-January 2005	BSc in Mathematics, Mugla University, Turkey

Research interests

Analytic Number Theory:	Distribution and mean values of exponential sums in particular Gauss and Kloosterman sums
Dynamical Systems:	Homogeneous dynamics, in particular equidistribution of horocycles
Probability:	Convergence in distribution, random process

Publications

- [1] *The value distribution of incomplete Gauss sums.* Mathematika, **59** (2)(2013), 381–398, joint with J. Marklof.
- [2] *Short incomplete Gauss sums and rational points on metaplectic horocycles.* Int. J. Number Theory, **10**(6)(2014), 1553–1576.
- [3] *Random Process generated by the incomplete Gauss sums,* Turkish J. Mathematics, **39**(2015), 527–537.

Research grants

March 2007-March 2014 Recipient of postgraduate scholarship (MSc and PhD)
by the Ministry of Education of Turkey

Teaching experience

2015-2016 Lecturing for pure mathematics units
e.g. Number Theory, Abstract Algebra, Selected Topics from Group Theory

2010-2014 Tutoring and marking for the first year pure mathematics units
e.g. Analysis, Number theory and Group theory, Calculus, Algebra

Conference and seminar presentations

4 December 2015 Gebze Technical University, Mathematics Department, Kocaeli, Turkey
Seminar talk given

24 June 2015 Galatasaray University, Mathematics Department, Istanbul, Turkey
Seminar talk given

28 May 2015 MSGSU (Mimar Sinan Fine Arts University) General Seminar, Istanbul, Turkey
Seminar talk given

8 May 2015 IZTECH (Izmir Institute of Technology) Mathematics Departmental Seminar, Izmir, Turkey
Seminar talk given

11-17 July 2014 Enfant and Elephant Analytic Number Theory Workshop, Bonn, Germany
Invited talk given

18-19 April 2013 Women in Mathematics Day, Cambridge, UK
Contributed talk given and poster presented

20 November 2012 HFAKT seminar, Bristol, UK
Seminar talk given

4 October 2012 MINGLE, Bristol, UK
Contributed talk given and poster presented

7-12 August 2012 Four Faces of Number Theory, Wurzburg, Germany
Poster presented

17-22 June 2012 Canadian Number Theory Association XII (CNTA XII), Lethbridge, Canada
Contributed talk given

2-4 April 2012 Young Researchers in Mathematics 2012, Bristol, UK
Contributed talk given

22 June 2011 Junior Number Theory Seminar, Bristol, UK
Seminar talk given

Conferences/Workshops/Summer Schools

2-7 July 2013	KIAS Summer School on Homogeneous Dynamics Seoul, Korea
3-7 June 2013	Limit Theorems for Dynamical Systems EPFL, Lausanne, Switzerland
18-22 March 2013	Equidistribution in Number Theory and Dynamics Zurich, Switzerland
1-3 October 2012	Arithmetic of L functions Bristol, UK
3-7 September 2012	Synergies and Vistas in Analytic Number Theory Oxford, UK
26 June-1 July 2011	Spectral Theory and its applications, LMS-EPSRC short course UCL London, UK
6 May 2011	Women in Mathematics Day London, UK
25-30 July 2010	Ergodic Theory and Arithmetic Dynamics, LMS-EPSRC short course Queen Mary, London, UK

Computer skills

Programming: HTML, C++
 Packages: Matlab, Maple, Mathematica

References

Professor Jens Marklof	School of Mathematics, University of Bristol, UK j.marklof@bristol.ac.uk
Professor Zeev Rudnick	School of Mathematical Sciences, Tel-Aviv University, Israel rudnick@post.tau.ac.il
Professor Alex Iosevich	Department of Mathematics, University of Rochester, USA iosevich@math.rochester.edu