Junxian Li

Contact Mathematisches Institut

INFORMATION Georg-August Universität Göttingen

Bunsenstraße 3-5 D-37073 Göttingen

Germany

RESEARCH INTERESTS L-functions, Exponential Sums, Primes, Algebraic Curves, Dynamical Systems, Ergodic Theory, Additive Combinatorics.

EMPLOYMENT

Georg-August Universität Göttingen Postdoctoral Research Assistant Advisor: Valentin Blomer

EDUCATION

University of Illinois at Urbana-Champaign Ph.D. in Mathematics, August 2018

Advisor: Alexandru Zaharescu

Nanjing University

B.A. in Mathematics, May 2013

PUBLICATIONS

Zeros of a family of approximations of Hecke L-functions associated with cusp forms (with A.Roy and A. Zaharescu), Ramanujan J., 41(1-3):391–419, 2016.

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https://jligit.github.io/

Smooth L² distances and zeros of approximations of Dedekind zeta functions (with M. Nastasescu, A. Roy, and A. Zaharescu), Manuscripta Math., 154(1-2):195–223, 2017.

A lower bound for the least prime in an arithmetic progression (with K. Pratt and G. Shakan), The Quarterly Journal of Mathematics (Oxford), 68(3):729–758, 2017.

Exact evaluation of second moments associated with some families of curves over a finite field (with R. Donepudi and A. Zaharescu), Finite Fields Appl., 48:331–355, 2017.

On distinct consecutive r-difference (with G. Shakan), J. Number Theory. to appear, arXiv preprint arXiv:1708.03742.

Leading Digits of Mersenne Numbers (with Z. Cai, M Faust, A.J. Hildebrand, and Y. Zhang), Exp. Math. to appear, arXiv preprint arXiv:1712.04425.

Ducci iterates and similar ordering on sets of visible points (with A. Tamazyan and A. Zaharescu), submitted.

A binary quadratic Titchmarsh divisor problem, arXiv preprint arXiv:1808.00837

A local Benford Law for a class of arithmetic sequences (with Z. Cai and A.J. Hildebrand), Int. J. Number Theory. to appear, arXiv preprint arXiv:1808.01496

 $Almost\ Beatty\ Partitions($ with A.J. Hildebrand, X. Li, and Y. Xie), arXiv preprint arXiv:1809.08690

The final problem: an identity from Ramanujan's lost notebook (with B. Berndt and A. Zaharescu), submitted.

Large values of degree 1 L-functions at the zeros of other L-functions, preprint.

 $On\ primes\ in\ arithmetic\ progressions,\$ Building Bridges 3 conference proceedings to appear.

	appear.		
Honors and Awards	Bateman Fellowship in Number Theory	Spring 2018	
Teaching	Math 415 Linear Algebra	UIUC, Fall 2017	
EXPERIENCE	Math 415 Linear Algebra	UIUC, Spring 2017	
	Math 231 Calculus II	UIUC, Spring 2016	
	Math 241 Calculus III	UIUC, Fall 2016	
	Math 241 Calculus III	UIUC, Spring 2015	
Professional Services	☐ Organizer of Graduate Student Number Theory Seminar in UIU☐ Illinois Geometry Lab Mentor	UC 2016-2018	
	• Almost Beatty Partitions	Fall 2018	
	• Beatty sequences, and Partitions of the Integers	$Spring \ 2018$	
	• Chaotic maps and exotic number systems	Fall 2017	
	• Finding integers in group orbits	$Spring\ 2017$	
	• Local Benford's Law	Fall 2016	
	• Leading digit distribution	$Spring \ 2016$	
	• Random Walk in number theory	Fall 2015	
	• Fractals, Patterns and Randomness in Number Theory	Spring 2015	
	• Fourier Series with Number theoretic coefficients	Fall 2014	
	• Symmetry in Nature	Spring 2014	
CONFERENCES AND SEMINAR TALKS	Extreme values of L-functions		
	Oberseminar analytic number theory, Georg-August Universität Göttingen. Nov 2018		
	Primes in arithmetic progressions		
	Junior Mathematics Colloquium, Georg-August Universität Göttin	ngen. Dec 2017	
	Primes in arithmetic progressions		
	Where Geometry meets Number Theory, a conference in honor of		
	the 60th birthday of Per Salberger, Gothenburg.	July 2017	
	The least prime in an arithmetic progression Joint Mathematics Meeting, Atlanta.	Jan 2017	
	On the least prime in an arithmetic progression Number Theory Seminar, UIUC.	Sep 2016	

A lower bound on the least prime in an arithemetic progression, Workshop on Automorphic Forms and Related Topics, Sarajevo .

2015 Midwest Number Theory Conference for Graduate Students

 $Approximations \ of \ L$ -functions

Approximations of L-functions

and Recent PhD's.

July 2016

Oct 2015

	Graduate Student Number Theory Seminar, UIUC.	Nov	2015
	Bailey Pairs and Bailey chains q series Seminar, UIUC.	April	2015
	Basic Hypergoemetric functions q series Seminar, UIUC.	March .	2015
Research Experience	Building Bridges: 4th EU/US Summer School and Workshop on Automorphic Forms and Related Topics	July ,	2018
	Hausdorff School: L-functions: Open Problems and Current Method	ls June	2018
	MRC: Number Theoretic Methods in Hyperbolic Geometry	June	2018
	Probability in Number Theory	May	2018
	Arbeitsgemeinschaft in Oberwolfach	Oct	2017
	MSRI Summer Graduate School on Automorphic Forms and the Langlands Program	August ,	2017
	PCMI Graduate Summer School on random matrices	June	2017
	University of Houston Summer School on Dynamical Systems	May	2017
	West Coast Algebraic Topology Summer School	August	2016
	Building Bridges: 3rd EU/US Summer School and workshop on Automorphic Forms	July .	2016
	UNCG Summer School in Computational Number Theory	June	2016
	Houston Summer School on Dynamical Systems	May	2016
	UNCG Summer School in Computational Number Theory	May	2015
	Exchange in University of Wisconsin-Madison	Fall	2012
Outreach Activities	 □ Four Color Fest □ A Math Carnival at Illinois-Gathering for Gardener □ Science at the Market 	Nov 1-4, January 28, August,	2017
SKILLS	Programming: C++, Mathematica, Matlab, Python Languages: English, Chinese		