Junxian Li

Contact Information	Mathematisches Institut Georg-August Universität Göttingen Bunsenstraße 3-5 D-37073 Göttingen Germany	junxian.li@mathematik.uni-goettingen.de https://jligit.github.io/

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

Employment   Georg-August Universität Göttingen
>   Postdoctoral Research Assistant
>>   Mentor: 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.

Smooth L^2 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.

HONORS AND AWARDS	*Bateman Fellowship in Number Theory*	*Spring 2018*
	On the List of Teachers Ranked as Excellent by their Students	*Fall 2017*
CONFERENCE SPECIFIC GRANT	*AMS-MRC Grant for the JMM*	*Jan, 2019*
	US Junior Oberwolfach Fellows (NSF Grant)	*Oct,2017*
	PCMI-GSS Travel Award	*June ,2017*
	UIUC-AWM Graduate Travel Funding	*2017- 2018*
	AMS Graduate Student Travel Grant for the JMM	*Jan,2017*
TEACHING EXPERIENCE	Math 415 Linear Algebra, Instructor	*UIUC, Fall 2017*
	Math 415 Linear Algebra, Instructor	*UIUC, Spring 2017*
	Math 231 Calculus II, Instructor	*UIUC, Spring 2016*
	Math 241 Calculus III, Instructor	*UIUC, Fall 2016*
	Math 241 Calculus III, Instructor	*UIUC, Spring 2015*

PROFESSIONAL SERVICES AND MEMBERSHIP

❑ *Organizer of AMS Special Session at the Joint Mathematics Metting*　2019
  • Number Theoretic Methods in Hyperbolic Geometry
❑ *Organizer of Graduate Student Number Theory Seminar in UIUC*　2016-2018
❑ Referee:
  • Math. Reports
  • Rev. Roumaine Math. Pures Appl.
  • J. Math. Sci. Adv. Appl.
❑ Membership: American Mathematical Society

UNDERGRADUATE MENTORING

❑ *Illinois Geometry Lab Graduate Student Mentor*

• 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*

The Unreasonable Effectiveness of Benford's Law in Mathematics
Joint with A.J. Hildebrand, Number Theory Seminar, UIUC.   *April 2018*

Primes in arithmetic progressions
Junior Mathematics Colloquium, Georg-August Universität Göttingen.   *Dec 2017*

Randomness in Number Theory
Graduate Student Colloquium, UIUC.   *Nov 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 .   *July 2016*

Approximations of L-functions
2015 Midwest Number Theory Conference for Graduate Students
and Recent PhD's.   *Oct 2015*

Approximations of L-functions
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 Methods   *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*

	MSRI: Analytic Number Theory	*Jan,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, 2017* *January 28, 2017* *August, 2013*
SKILLS	Programming: C++, Mathematica, Matlab, Python Languages: English, Chinese	