

## Junxian Li

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CONTACT INFORMATION	Mathematisches Institut Georg-August Universität Göttingen Bunsenstraße 3-5 D-37073 Göttingen Germany	junxian.li@mathematik.uni-goettingen.de <a href="https://jligit.github.io/">https://jligit.github.io/</a>
RESEARCH INTERESTS	<i>L</i> -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	<i>Zeros of a family of approximations of Hecke L-functions associated with cusp forms</i> (with A.Roy and A. Zaharescu), Ramanujan J., 41(1-3):391–419, 2016.  <i>Smooth <math>L^2</math> distances and zeros of approximations of Dedekind zeta functions</i> (with M. Nastasescu, A. Roy, and A. Zaharescu), Manuscripta Math., 154(1-2):195–223, 2017.  <i>A lower bound for the least prime in an arithmetic progression</i> (with K. Pratt and G. Shakan), The Quarterly Journal of Mathematics (Oxford), 68(3):729–758, 2017.  <i>Exact evaluation of second moments associated with some families of curves over a finite field</i> (with R. Donepudi and A. Zaharescu), Finite Fields Appl., 48:331–355, 2017.  <i>On distinct consecutive <math>r</math>-difference</i> (with G. Shakan), J. Number Theory. to appear, arXiv preprint arXiv:1708.03742.  <i>Leading Digits of Mersenne Numbers</i> (with Z. Cai, M Faust, A.J. Hildebrand, and Y. Zhang), Exp. Math. to appear, arXiv preprint arXiv:1712.04425.  <i>Ducci iterates and similar ordering on sets of visible points</i> (with A. Tamazyan and A. Zaharescu), Int. J. Number Theory. to appear.  <i>A binary quadratic Titchmarsh divisor problem</i> , Acta Arithmetica to appear, arXiv preprint arXiv:1808.00837  <i>A local Benford Law for a class of arithmetic sequences</i> ( 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), J. Integer Seq. to appear, arXiv preprint arXiv:1809.08690

*The final problem: an identity from Ramanujan's lost notebook*( with B. Berndt and A. Zaharescu), J. Lond. Math. Soc. to appear.

*The surprising accuracy of Benford's law in mathematics*( with Z. Cai, M. Faust, A. J. Hildebrand and Y. Zhang) Amer. Math. Monthly to appear.

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

*Small values of  $L'(\rho)$*  (with A. Zaharescu), submitted.

*Large values of degree 1  $L$ -functions at the zeros of a class of  $L$ -functions*, preprint.

HONORS AND AWARDS	<i>Bateman Fellowship in Number Theory</i>	<i>Spring 2018</i>
	<i>On the List of Teachers Ranked as Excellent by their Students</i>	<i>Fall 2017</i>
TEACHING EXPERIENCE	Math 415 Linear Algebra, Instructor	<i>UIUC, Fall 2017</i>
	Math 415 Linear Algebra, Instructor	<i>UIUC, Spring 2017</i>
	Math 231 Calculus II, Instructor	<i>UIUC, Spring 2016</i>
	Math 241 Calculus III, Instructor	<i>UIUC, Fall 2016</i>
	Math 241 Calculus III, Instructor	<i>UIUC, Spring 2015</i>
UNDERGRADUATE MENTORING	<input type="checkbox"/> <i>Illinois Geometry Lab Graduate Student Mentor</i>	
	• Almost Beatty Partitions	<i>Fall 2018</i>
	• Beatty sequences, and Partitions of the Integers	<i>Spring 2018</i>
	• Chaotic maps and exotic number systems	<i>Fall 2017</i>
	• Finding integers in group orbits	<i>Spring 2017</i>
	• Local Benford's Law	<i>Fall 2016</i>
	• Leading digit distribution	<i>Spring 2016</i>
	• Random Walk in number theory	<i>Fall 2015</i>
	• Fractals, Patterns and Randomness in Number Theory	<i>Spring 2015</i>
	• Fourier Series with Number theoretic coefficients	<i>Fall 2014</i>
	• Symmetry in Nature	<i>Spring 2014</i>
PROFESSIONAL SERVICES AND MEMBERSHIP	<input type="checkbox"/> <i>Organizer of AMS Special Session at the Joint Mathematics Meeting</i>	
	• Number Theoretic Methods in Hyperbolic Geometry	<i>2019</i>
	<input type="checkbox"/> <i>Organizer of Graduate Student Number Theory Seminar in UIUC</i>	
	<i>2016–2018</i>	
	<input type="checkbox"/> Referee:	
	• J. Number Theory • Math. Reports • Rev. Roumaine Math. Pures Appl. • J. Math. Sci. Adv. Appl.	
	<input type="checkbox"/> Membership: American Mathematical Society	
CONFERENCES AND SEMINAR TALKS	<i>Extreme values of <math>L</math>-functions</i>	
	Oberseminar analytic number theory, Georg-August Universität Göttingen. <i>Nov 2018</i>	
	<i>The Unreasonable Effectiveness of Benford's Law in Mathematics</i> Joint with A.J. Hildebrand, Number Theory Seminar, UIUC.	<i>April 2018</i>

	<i>Primes in arithmetic progressions</i> Junior Mathematics Colloquium, Georg-August Universität Göttingen.	<i>Dec 2017</i>
	<i>Randomness in Number Theory</i> Graduate Student Colloquium, UIUC.	<i>Nov 2017</i>
	<i>Primes in arithmetic progressions</i> Where Geometry meets Number Theory, a conference in honor of the 60th birthday of Per Salberger, Gothenburg.	<i>July 2017</i>
	<i>The least prime in an arithmetic progression</i> Joint Mathematics Meeting, Atlanta.	<i>Jan 2017</i>
	<i>On the least prime in an arithmetic progression</i> Number Theory Seminar, UIUC.	<i>Sep 2016</i>
	<i>A lower bound on the least prime in an arithmetic progression,</i> Workshop on Automorphic Forms and Related Topics, Sarajevo .	<i>July 2016</i>
	<i>Approximations of L-functions</i> 2015 Midwest Number Theory Conference for Graduate Students and Recent PhD's.	<i>Oct 2015</i>
	<i>Approximations of L-functions</i> Graduate Student Number Theory Seminar, UIUC.	<i>Nov 2015</i>
	<i>Bailey Pairs and Bailey chains</i> $q$ series Seminar, UIUC.	<i>April 2015</i>
	<i>Basic Hypergeometric functions</i> $q$ series Seminar, UIUC.	<i>March 2015</i>
RESEARCH EXPERIENCE	Second Symposium on Analytic Number Theory, Cetraro	July 2019
	Rational points on irrational varieties, IHP	June 2019
	L-functions and Multiplicative Number Theory, U of Mississippi	May 2019
	Distribution of values of zeta functions and L-functions, RIKEN	March 2019
	Workshop and Winter School on Local Statistics of Point Sequences, Linz	Feb 2019
	Building Bridges: 4th EU/US Summer School and Workshop on Automorphic Forms and Related Topics	<i>July 2018</i>
	Hausdorff School: L-functions: Open Problems and Current Methods	<i>June 2018</i>
	MRC: Number Theoretic Methods in Hyperbolic Geometry	<i>June 2018</i>
	Probability in Number Theory	<i>May 2018</i>
	Arbeitsgemeinschaft in Oberwolfach	<i>Oct 2017</i>

	MSRI Summer Graduate School on Automorphic Forms and the Langlands Program	<i>August 2017</i>
	PCMI Graduate Summer School on random matrices	<i>June 2017</i>
	University of Houston Summer School on Dynamical Systems	<i>May 2017</i>
	MSRI: Analytic Number Theory	<i>Jan, May 2017</i>
	West Coast Algebraic Topology Summer School	<i>August 2016</i>
	Building Bridges: 3rd EU/US Summer School and workshop on Automorphic Forms	<i>July 2016</i>
	UNCG Summer School in Computational Number Theory	<i>June 2016</i>
	Houston Summer School on Dynamical Systems	<i>May 2016</i>
	UNCG Summer School in Computational Number Theory	<i>May 2015</i>
	Exchange in University of Wisconsin-Madison	<i>Fall 2012</i>
OUTREACH ACTIVITIES	<input type="checkbox"/> Four Color Fest	<i>Nov 1-4 2017</i>
	<input type="checkbox"/> A Math Carnival at Illinois-Gathering for Gardener	<i>January 28 2017</i>
	<input type="checkbox"/> Science at the Market	<i>August 2013</i>
SKILLS	Programming: C++, Mathematica, Matlab, Python Languages: English, Chinese	