

Junxian Li

CONTACT INFORMATION	Max Planck Institute for Mathematics Vivatsgasse 7 53111 Bonn Germany	jli135@mpim-bonn.mpg.de https://jligit.github.io/
RESEARCH INTERESTS	L -functions, Primes, Exponential Sums, Additive Combinatorics, Algebraic Curves,	
EMPLOYMENT	Max Planck Institute for Mathematics Postdoc, Sep 2019– Georg-August Universität Göttingen Postdoc, Sep 2018–Aug 2019	
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>Uniform Titchmarsh divisor problems</i> (with E. Assing and V. Blomer), arXiv:2005.13915. <i>Lower bounds for discrete negative moments of the Riemann zeta function</i> (with W. Heap and J. Zhao), arXiv:2003.09368. <i>Large values of Dirichlet L-functions at zeros of a class of L-functions</i> , Canad. J. Math. to appear. <i>Value distribution of $L'(\rho)$</i> (with A. Zaharescu), J. Math. Anal. Appl. 480(1): 123400, 24 pp, 2019. <i>The surprising accuracy of Benford's law in mathematics</i> (with Z. Cai, M. Faust, A. J. Hildebrand and Y. Zhang) Amer. Math. Monthly 127 (3): 217–237, 2020. <i>The final problem: an identity from Ramanujan's lost notebook</i> (with B. Berndt and A. Zaharescu), J. Lond. Math. Soc. (2) 100(2): 568–591, 2019. <i>Almost Beatty Partitions</i> (with A.J. Hildebrand, X. Li, and Y. Xie), J. Integer Seq. 22(4): Art. 19.4.6, 34 pp, 2019. <i>A local Benford Law for a class of arithmetic sequences</i> (with Z. Cai and A.J. Hildebrand), Int. J. Number Theory. 15(3): 613–638, 2019. <i>A binary quadratic Titchmarsh divisor problem</i> , Acta Arithmetica 192(4): 341–361, 2020.	

	<i>Ducci iterates and similar ordering on sets of visible points</i> (with A. Tamazyan and A. Zaharescu), Int. J. Number Theory. 16(1): 1–28, 2020.	
	<i>Leading Digits of Mersenne Numbers</i> (with Z. Cai, M Faust, A.J. Hildebrand, and Y. Zhang), Exp. Math. to appear, arXiv:1712.04425.	
	<i>On distinct consecutive r-difference</i> (with G. Shakan), J. Number Theory. 199: 363–376, 2019.	
	<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>A lower bound for the least prime in an arithmetic progression</i> (with K. Pratt and G. Shakan), Q. J. Math., 68(3): 729–758, 2017.	
	<i>Smooth L^2 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>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.	
CONFERENCE PROCEEDINGS	<i>The Final Problem: A Series Identity from the Lost Notebook</i> (with B. C. Bruce and A. Zaharescu), George Andrews - 80 Years of Combinatory Analysis, 2020.	
	<i>On primes in arithmetic progressions, Automorphic forms and related topics</i> , 165–167, Contemp. Math., 732, Amer. Math. Soc., Providence, RI, 2019	
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> <ul style="list-style-type: none"> • 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> <i>2019</i> <ul style="list-style-type: none"> • Number Theoretic Methods in Hyperbolic Geometry <input type="checkbox"/> <i>Organizer of Graduate Student Number Theory Seminar in UIUC</i> <i>2016–2018</i>	

- ❑ Referee:
 - Math. Reports
 - Rev. Roumaine Math. Pures Appl.
 - J. Math. Sci. Adv. Appl.
- ❑ Membership: American Mathematical Society

CONFERENCES
AND SEMINAR
TALKS

- Derivative of the Riemann zeta function at its zeros.*
Analytic Number Theory Meeting, IHP (online). *Jun 2020*
- Extreme values of L-functions*
Number theory lunch seminar, MPIM. *Oct 2019*
- 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 arithmetic 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 Hypergeometric functions*
 q series Seminar, UIUC. *March 2015*

RESEARCH
EXPERIENCE

- Zeta functions, CIRM Dec 2019

	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	❑ Four Color Fest	<i>Nov 1-4 2017</i>
	❑ A Math Carnival at Illinois-Gathering for Gardener	<i>January 28 2017</i>
	❑ Science at the Market	<i>August 2013</i>
SKILLS	Programming: C++, Mathematica, Matlab, Python	
	Languages: English, Chinese	