

Fan Ge

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<https://fan-ge.net>

Employment

Postdoc, Department of Pure Mathematics, University of Waterloo, 2017-present

Education

Ph.D. in Mathematics, University of Rochester, 2017,

Thesis: On zeros of the derivative of the Riemann zeta-function

Advisor: Prof. Steve Gonek

M.S. in Mathematics, University of Rochester, 2012-2014.

B.S. in Mathematics, Nanjing University, 2009.

Interest

Number Theory, Combinatorics, Analysis, Probability, Operation Management

Publications

7. On the index conjecture in zero-sum theory: singular case,
Int. J. Number Theory, 14 (2018), no. 2, 355–364.
6. The distribution of zeros of $\zeta'(s)$ and gaps between zeros of $\zeta(s)$,
Adv. Math. 320 (2017), 574–594.
5. The number of zeros of $\zeta'(s)$,
Int. Math. Res. Not. IMRN 2017 (5), 1578–1588.
4. On a permutation problem for finite abelian groups (with Z-W. Sun),
Electron. J. Combin. 24 (2017) P1.17.
3. Conditional estimates on small distances between ordinates of zeros of $\zeta(s)$ and $\zeta'(s)$,
J. Number Theory 165 (2016), 304–313.
2. Note on the index conjecture in zero-sum theory and its connection to a Dedekind-type sum,
J. Number Theory 168 (2016), 128–134.
1. On some universal sums of generalized polygonal numbers (with Z-W. Sun),
Colloq. Math. 145 (2016), 149–155.

Preprints and working papers

7. Some multidimensional integrals in number theory and connections with the Painleve V equation,
(with E. Basor and M.O. Rubinstein), submitted.
6. On zeros of the derivative of the Selberg zeta-function, submitted.

5. The number of zeros of $L'(s, \chi)$, submitted.
 4. The mean square discrepancy in the Dirichlet divisor problem (with S. M. Gonek), submitted.
 3. Lower bounds for small fractional moments of quadratic Dirichlet L -functions (with S. Baluyot), preprint.
 2. Critical points of L -functions in the hyperelliptic ensemble (with S. M. Gonek).
 1. Lower bounds for small fractional moments of L -series of Hecke eigencuspforms (with S. Baluyot).
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Conferences

- Perspectives on the Riemann Hypothesis, Bristol (Heilbronn), 2018.
- Probability in Number Theory, Montreal (CRM), 2018.
- International Conference on Mathematics and Statistics, Memphis, 2018.
- Canadian Mathematical Society meeting, Waterloo, 2017.
- Recent developments in Analytic Number Theory, Berkeley (MSRI), 2017.
- Moments of zeta and correlations of divisor sums, San Jose (AIM), 2016.
- The sixth upstate New York number theory conference, Rochester, 2016.
- New approaches in probabilistic and multiplicative number theory, Montreal (CRM), 2014.
- 13th Conference of the Canadian Number Theory Association, Ottawa, 2014.
- 1st Workshop on supercongruences, π -series and related topics, Nanjing, 2011.
- 2nd National Conference on Combinatorial Number Theory, Guangzhou, 2011.
- 1st National Conference on Combinatorial Number Theory, Nanjing, 2009.

Talks

- Counting zeros of the derivative of the Riemann zeta-function*,
International Conference on Mathematics and Statistics, Memphis, 2018.
 - Counting zeros of the derivative of the Riemann zeta-function*,
York Number Theory Seminar, Toronto, 2017.
 - Riemann's memoir and the prime number theorem*,
Analytic number theory class, Waterloo, 2017.
 - The number of zeros of $\zeta'(s)$* ,
Waterloo Number Theory Seminar, Waterloo, 2017.
 - Connections between zeros of ζ and ζ' : old and new results*,
The sixth upstate New York number theory conference, Rochester, 2016.
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Honors

Fellowship, University of Rochester, Spring 2015.

Elite Program for Top Students, Fellowship, Nanjing University, 2009-2011.

Excellent Graduate Scholarship, Nanjing University, 2011.

Renmin Scholarship, Nanjing University, 2007, 2008.

Teaching

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|---------------------|---------------------------------|--------------------------|--------------|
| Instructor, | Algebra for Honors Mathematics, | University of Waterloo, | Winter 2018. |
| Instructor, | Algebra for Honors Mathematics, | University of Waterloo, | Fall 2017. |
| Teaching Assistant, | Algebra, | University of Rochester, | Spring 2017. |
| Teaching Assistant, | Calculus, | University of Rochester, | Fall 2016. |
| Teaching Assistant, | Algebra, | University of Rochester, | Spring 2016. |
| Teaching Assistant, | Calculus, | University of Rochester, | Fall 2015. |
| Teaching Assistant, | Calculus, | University of Rochester, | Fall 2014. |
| Teaching Assistant, | Algebra I, (graduate level), | University of Rochester, | Fall 2014. |
| Teaching Assistant, | Algebra II (graduate level), | University of Rochester, | Spring 2014. |
| Teaching Assistant, | Algebra I, (graduate level), | University of Rochester, | Fall 2013. |
| Teaching Assistant, | Complex Analysis, | University of Rochester, | Spring 2013. |
| Teaching Assistant, | Number Theory, | University of Rochester, | Fall 2012. |

Services

Referee for: Acta Arithmetica, International Journal of Number Theory, etc.

Advisory Panelist for: Ph.D. and Post-doc Research and Job Application,
Department of Mathematics, University of Rochester, 2017.

Reviewer for: MathSciNet.

Volunteer Technician: Canadian Mathematical Society meeting, Waterloo, 2017.