Li Lai

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Education

2021-Present	**Tsinghua University**, Beijing, China. Ph.D. candidate Mathematics, Advisor: Pin Yu
2014-2020	**Tsinghua University**, Yau Mathematical Sciences Center. M.S. Mathematics, Advisor: Pin Yu
2010-2014	**Tsinghua University**, Beijing, China. B.S. Mathematics

Research Interests

I mainly work on transcendental number theory.

Publications and Preprints

5. Li Lai, Cezar Lupu and Derek Orr,
   Elementary proofs of Zagier's formula for multiple zeta values and its odd variant,
   arXiv:2201.09262

4. Li Lai,
   On the largest prime divisor of $n! + 1$,
   arXiv:2103.14894

3. Li Lai and Li Zhou,
   At least two of $\zeta(5), \zeta(7), \ldots, \zeta(35)$ are irrational,
   accepted in Publicationes Mathematicae Debrecen. arXiv:2103.00904

2. Li Lai, Jiong-Yue Li and Pin Yu,
   On the rigidity of stationary charged black holes: small perturbations of the non-extremal Kerr-Newman family,
   accepted in Journal of Differential Geometry. arXiv:1911.10560

1. Li Lai and Pin Yu,
   A note on the number of irrational odd zeta values,
   Compositio Mathematica 156 (2020), no. 8, 1699-1717. arXiv:1911.08458

Awards and Honors

2012	Nianzeng Sun Mathematical Analysis Award (at Tsinghua University)
2010	International Mathematical Olympiad: Gold Medal

Talks

March 21, 2022	Jiangxi Normal University At least two of $\zeta(5), \zeta(7), \ldots, \zeta(35)$ are irrational

March 12, 2022   Anhui Normal University

Elementary proofs of Zagier's formula for multiple zeta values and its odd variant

January 7, 2022   Learning Seminar on Multiple Zeta Values, YMSC&BIMSA

Linear forms in Riemann zeta values and MZVs

June 27, 2020   Webinar on APDE (online)

Recent progress on the irrationality of $\zeta(2k+1)$.

Teaching Assistant Experiences

Fall 2021   Advanced Calculus 1 (Yinghua Ai, Tsinghua University)
Spring 2021   Real Analysis (Yijun Yao, Fudan University)
Fall 2017   Mathematical Analysis 3 (Pin Yu, Tsinghua University)
Spring 2017   Mathematical Analysis 2 (Chenghao Sun, Tsinghua University)
Spring 2016   Linear Algebra (Lingbing He, Tsinghua University)
2014-2015   Mathematical Analysis 1-3 (Xuguang Lu, Tsinghua University)

Other Experiences and Activities

2020-2021   Research assistant at Fudan University
2017   Finisher of Columbia168 ULTRA-TRAIL® THREE GORGES (168 km trail running)
Spring 2013   Exchange student at École normale supérieure, Paris, France

CV updated: 2022-5-27