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Li Lai

Education

2021-Present **Tsinghua University**, Beijing, China.

Ph.D. 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

Transcendental number theory; wave equation.

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

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
Spring 2013 Exchange student at École normale supérieure, Paris, France

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