

Qirui Li

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Department of Mathematics, University of Bonn
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<http://qirui.li>

- EMPLOYMENT** **University of Bonn** **2021-**
Postdoctoral Fellow, mathematics.
Mentor: Prof. Peter Scholze.
- University of Toronto** **2018-2021**
Postdoctoral Fellow, mathematics.
Mentor: Prof. Stephen Kudla.
- EDUCATION** **Columbia University** **2013-2018**
Ph.D, mathematics(May,2018)
Advisor: Prof. Wei Zhang
- Tsinghua University** **2009-2013**
B.S. in mathematics, June,2013
Fellowship in the Tsinghua Xuetaang Talents Program
First Scholarship, Three consecutive years
Thesis Advisor: Ye Tian
- RESEARCH INTEREST** **Number Theory and Arithmetic Geometry**
Arithmetic Geometry, Gross–Zagier formula.
Automorphic Representations, Relative Trance Formulae.
Elliptic curves, p-divisible groups, Shimura varieties, Local Shtukas
- PAPERS**
- *An Intersection formula of CM cycles on Lubin-Tate spaces*
Published: Duke Mathematical Journal. 2022 Jan;1(1):1-89.
Arxiv: 1803.07553
 - *Extensions of vector bundles on the Fargues-Fontaine curve.*
AWS project with C. Birkbeck, T.Feng, D.Hansen, S.Hong , A.Wang
and L.Ye. Published, Journal of the Institute of Mathematics of Jussieu
Arxiv: 1705.00710
 - *A proof of the linear Arithmetic Fundamental Lemma of GL_4*
published: Canadian Journal of Mathematics 74.2 (2022): 381-427.
Arxiv:1907.00090
 - *On Keating’s results of formal module endomorphisms lifting.*
Arxiv:1902.10789
 - *Intersections in Lubin-Tate Space and bi-quadratic Fundamental Lemmas*
with Ben Howard, submitted.
Arxiv:2010.07365
 - *On the Linear AFL: The Non-Basic Case.*

- with Andreas Mihatsch. arXiv preprint arXiv:2208.10144 (2022).
- *Linear Arithmetic Fundamental Lemma for GL_2 - Higher derivatives*
with Wei Zhang and Andreas Mihatsch, in preparation
- *Arithmetic Fundamental Lemma for Drinfeld spaces*
with Andreas Mihatsch, in preparation

TEACHING EXPERIENCES	Linear Algebra(MATHS2010_001_2015_2)	Summer 2015
	Linear Algebra(MATHS2010_002_2016_2)	Summer 2016
	College Algebra(MATH1003_001_2017_1)	Spring 2017
	Linear Algebra(MATHS2010_001_2017_2)	Summer 2017
	Linear Algebra(MAT223)	Fall 2018
	Differential Equations(MAT234)	Spring 2019
	Linear Algebra(MAT224)	Summer 2019
	Calculus(MAT135)	Fall 2019
	Linear Algebra(MAT224)	Winter 2020
	Linear Algebra(MAT224)	Summer 2020
	Calculus(MAT135)	Fall 2020
	Linear Algebra(MAT224)	Winter 2021
	Linear Algebra(MAT224)	Summer 2021

HONORS	The 5th New World Mathematics Gold Award for Thesis	Sep 2019
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SKILLS	Programming: C++,Java,python Web-designing: HTML,javascript,php,css Others: Latex,Markdown
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