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EMPLOYMENT **École Polytechnique Fédérale de Lausanne** August 2018–present
Postdoc
Mentor: [Philippe Michel](#)

RESEARCH INTERESTS Analytic number theory, Automorphic forms, L-functions

EDUCATION **The Ohio State University**, Columbus, USA August 2013– May 2018
Ph. D., Mathematics
Thesis advisor: [Roman Holowinsky](#)
Thesis title: [Subconvex bounds for twists of \$GL\(3\)\$ L-functions](#)

PUBLICATIONS *Triple correlations of Fourier coefficients of cusp forms.*
[Ramanujan J.](#) 45 (2018), no. 3, 841–858.
[arXiv:1607.02956](#)

Bounds for twists of $GL(3)$ L-functions.
[J. Eur. Math. Soc. \(JEMS\)](#) 23 (2021), no. 6, 1899–1924.
[arXiv:1802.05111](#)

The Burgess bound via a trivial delta method.
with [Keshav Aggarwal](#), [Roman Holowinsky](#), and [Qingfeng Sun](#).
[Ramanujan J.](#) 53 (2020), no. 1, 49–74.
[arXiv:1803.00542](#)

Periodic twists of GL_3 -automorphic forms.
with [Emmanuel Kowalski](#), [Philippe Michel](#), and [Will Sawin](#).
[Forum of Math, Sigma](#) 8 (2020), Paper No. e15, 39 pp.
[arXiv:1905.05080](#)

A Bessel delta-method and exponential sums for $GL(2)$.
with [Keshav Aggarwal](#), [Roman Holowinsky](#), and [Zhi Qi](#).
[Q. J. Math.](#) 71 (2020), no. 3, 1143–1168.
[arXiv:1906.05485](#)

Analytic twists of $GL_3 \times GL_2$ automorphic forms.
with [Qingfeng Sun](#).
[Int. Math. Res. Not.](#) (2021), no. 19, 15143–15208.
[arXiv:1912.09772](#)

Averages of coefficients of a class of degree 3 L-functions.
with Bingrong Huang and Zhiwei Wang.
Ramanujan J., 57 (2022), no. 1, 79–91.
[arXiv:2003.04240](#)

PREPRINTS

Algebraic twists of $GL_3 \times GL_2$ L-functions.
with Philippe Michel and Will Sawin.
accepted to Amer. J. Math., 46 pp, [arXiv:1912.09473](#)

Strong subconvexity for self-dual $GL(3)$ L-functions.
with Ramon Nunes and Zhi Qi.
submitted, 14 pp, [arXiv:2112.14396](#)

SEMINAR TALKS

Some analytic aspects of automorphic forms Apr., 2022
Stanford Student Analytic Number Theory Seminar (online)

Bounding self-dual L-functions: the Conrey–Iwaniec method revisited Feb., 2022
KSU Number Theory Seminar (online), Kansas State University

$GL(3)$ subconvexity in the twist aspect Mar., 2021
London learning seminar on analytic number theory (online)

Algebraic twists of automorphic forms May, 2020
Shandong University (online), Jinan

Analytic twists of $GL(3) \times GL(2)$ automorphic forms Jan., 2020
Shandong University, Jinan

Application of simple delta methods towards twists of modular forms Oct., 2019
Number Theory Seminar, ETH Zürich

Application of a delta method towards analytic twists of modular forms Aug., 2019
Shandong University, Jinan

Algebraic twists of $GL(3)$ -modular forms Aug., 2019
Shandong University, Weihai

Algebraic twists of $GL(3)$ -modular forms Aug., 2019
Zhejiang University, Hangzhou

The subconvexity problem for L-functions on $GL(3)$ Oct., 2018
Seminar of Algebraic Geometry and Number Theory, EPFL

Bounds for twists of $GL(3)$ L-functions Mar., 2018
Number Theory Seminar, Rutgers University

Hybrid subconvexity for twists of $GL(3)$ L-functions Oct., 2017
Number Theory Seminar, OSU

The subconvexity problem Sep., 2017
The MGSA Grad Student Seminar, OSU

CONFERENCES &
WORKSHOPS
TALKS

	<i>TBA</i> (three lectures) Loo-Keng Hua Young Mathematicians Forum, Institute of Mathematics, Chinese Academy of Sciences, Beijing	Sep., 2022
	<i>The subconvexity problem in the twist aspect</i> The 6th Qilu Youth Forum, Shandong University (online)	Sep., 2021
	<i>Equidistribution of integer points and subconvexity of L-functions</i> Lightning talk at the workshop: "Counting problems", Ventotene (LT), Italy	Sep., 2021
	<i>Averages of coefficients of $GL_3 \times GL_2$ L-functions</i> Québec-Maine Number Theory Conference (online), Université Laval	Sep., 2020
	<i>Twists of automorphic forms, subconvexity, and equidistribution</i> Wuhan University International Forum (online)	Jul., 2020
	<i>Twists of automorphic forms, subconvexity, and equidistribution</i> Soochow University Forum for International Young Scholars (online)	Jun., 2020
	<i>Algebraic twists of automorphic forms</i> Workshop: <i>number theory in the sky</i> (online), Xi'an Jiaotong University	May, 2020
	<i>Algebraic twists of automorphic forms</i> The 4 th Nanjing University Young Scholar Forum, Nanjing	Dec., 2019
	<i>Application of a trivial delta method towards subconvexity</i> Shandong University, Weihai	Aug., 2019
	<i>The Burgess bounds for L-functions via a trivial delta method</i> Speed talk at "Elementare und Analytische Zahlentheorie", MPIM, Bonn	Sep., 2018
	<i>Bounds for twists of $GL(3)$ L-functions</i> Eighth Annual Upstate Number Theory Conference, Buffalo, NY	Apr., 2018
	<i>Bounds for twists of $GL(3)$ L-functions</i> 32nd Automorphic Forms Workshop, Tufts University	Mar., 2018
EXPOSITORY TALKS	<i>An overview of the t-aspect subconvexity problem</i> Informal Number Theory Seminar, EPFL	Oct., 2018
	<i>Delta symbol methods and their applications in bounding L-functions</i> Graduate Number Theory Seminar, Rutgers University	Mar., 2018
	<i>Titchmarsh's argument for bounding the Epstein zeta function</i> The Number Theory Student Seminar, OSU	Feb., 2018
	<i>Shifted convolution sums and the circle method</i> (two lectures) Student Ergodic Theory and Combinatorial Number Theory Seminar, OSU	Oct., 2017

	<i>Petersson delta method and selected applications</i>	Oct., 2017
	The Number Theory Student Seminar, OSU	
	<i>Triple correlations of Fourier coefficients of cusp forms</i>	Fall 2016
	Talk at Holowinsky's topic course in <i>Number Theory</i> , OSU	
	<i>Bourgain's Quantitative Oppenheim Theorem</i> (three lectures)	Spring, 2016
	Student Ergodic Theory and Combinatorial Number Theory Seminar, OSU	
SERVICE	Referee (more than 20 articles) for <i>Acta Arithmetica</i> , <i>Advances in Mathematics</i> , <i>Algebra Number Theory</i> , <i>Forum Mathematicum</i> , <i>Frontiers of Mathematics in China</i> , <i>International Journal of Number Theory</i> , <i>Journal of the London Mathematical Society</i> , <i>Journal of Number Theory</i> , <i>Journal de Théorie des Nombres de Bordeaux</i> , <i>Mathematika</i> , <i>Mathematische Annalen</i> , <i>Mathematische Zeitschrift</i> , <i>Research in Number Theory</i> , <i>Simons Symposia Proceedings</i> .	
	<i>Peer Mentor to incoming PhD students</i>	
	Department of Mathematics, OSU (assisting annually one new graduate student to get adjusted to the department and the city), 2014–2017.	
	<i>Postdoc representative for Audit of the Institute of Mathematics</i>	
	EPFL, Nov. 2019	
	<i>Volunteer in the mentorship program for bachelor and master students</i>	
	Section of Mathematics, EPFL, Fall 2020	
INVITED VISIT	Hausdorff Research Institute for Mathematics (HIM), Bonn	June 30–August 20, 2021
	Invited participant (with a fellowship) for the Hausdorff Trimester Program: <i>Harmonic Analysis and Analytic Number Theory</i>	
CONFERENCES ATTENDED	Workshop: Young Scholars in the Analytic Theory of Numbers and Automorphic Forms, University of Bonn	Mar., 2022
	goMATH mini-Symposium: Harmonic Analysis and Number Theory, ETH, Zürich	Mar., 2022
	Counting problems, Ventotene (LT), Italy	Sep., 2021
	Hausdorff School: The Circle Method: Entering its Second Century (online), HCM, Bonn	May, 2021
	AIM workshop: Delta symbols and the subconvexity problem (online), San Jose	Nov. 2020
	Automorphic Forms and Arithmetic, Oberwolfach	Aug. 2020
	Number Theory Days 2019, ETHZ, Zürich	Oct. 2019
	The First Journal of Number Theory Biennial Conference, Grand Hotel San Michele, Cetraro, Italy	Jul. 2019
	Second Symposium on Analytic Number Theory, Grand Hotel San Michele, Cetraro, Italy	Jul. 2019

Arithmetic, geometry, and modular forms: a conference in honour of Bill Duke, ETHZ, Zürich	Jun. 2019
Analytic Aspects of Automorphic Forms, Lille, France	Apr. 2019
Winter School on "Trace functions and their applications", Congressi Stefano Franscini of ETH Zürich, Monte Verità	Jan., 2019
Conference on "Elementare und Analytische Zahlentheorie", MPIM, Bonn	Sep., 2018
Dynamics: Topology and Numbers, MPIM, Bonn	Jul., 2018
Hausdorff School: L-functions: Open Problems and Current Methods, HCM, Bonn	Jun., 2018
Automorphic Forms and L-functions – A Conference in Celebration of Dorian Goldfeld's 71st Birthday, Shandong University, Qingdao, China	Jun., 2018
Eighth Annual Upstate Number Theory Conference, Buffalo, NY	Apr., 2018
32nd Automorphic Forms Workshop, Tufts University	Mar., 2018
Workshop in Recent developments in Analytic Number Theory, MSRI	May, 2017
Introductory Workshop: Analytic Number Theory, MSRI	Feb., 2017
Harmonic Analysis And Geometry Of Fractal Sets, OSU	Feb., 2017
Joint Mathematics Meetings, Atlanta, GA	Jan., 2017
Analysis and Beyond: Celebrating Jean Bourgain's work and impact, IAS	May, 2016
Workshop on Thin Groups and Super Approximation, IAS	Mar./Apr., 2016
Midwest Dynamical Systems Meeting, OSU	Oct./Nov., 2015
Illinois Number Theory Conference, University of Illinois, Urbana-Champaign in Urbana, IL	Aug., 2015
Atkin Memorial Lecture and Workshop Expansion in Linear Groups, University of Illinois at Chicago	May, 2015
Analysis, Spectra, and Number Theory, a conference in honour of Peter Sarnak on the occasion of his 61st birthday, Princeton University and IAS	Dec., 2014
Joint Mathematics Meetings, Baltimore, MD	Jan., 2014
Fields Medal Symposium, Arithmetic Dynamics in honor of Elon Lindenstrauss, Fields Institute	Sep./Oct., 2013
Fields Medal Symposium, Fundamentals of the Langlands Program in honor of Ngô Bào Châu, Fields Institute	Oct., 2012
AMS Fall Eastern Sectional Meeting, Rochester Institute of Technology	Sep., 2012

Noncommutative Geometry: Multiple Connections, OSU May, 2012

Workshop on Cohomology of Shimura Varieties: Arithmetic Aspects and the Construction of Galois representations, the Fields Institute Mar., 2012

Galois Representations, Shimura Varieties, and Automorphic Forms: A Workshop for Graduate Students and Postdoctoral Fellows, the Fields Institute. Mar., 2012

CIMPA-UNESCO-SDU Research School on Automorphic forms and L-functions, Shandong University, Weihai, China Aug., 2010

TEACHING
EXPERIENCE

Undergraduate level

Introduction to analytic number theory (with C. Raju) Fall 2021, Fall 2020
École Polytechnique Fédérale de Lausanne

Introduction to analytic number theory (with B. Topalogullari) Fall 2019
École Polytechnique Fédérale de Lausanne

Teaching assistant (for problem sessions)
École Polytechnique Fédérale de Lausanne

- Geometry II Spring 2020, Spring 2019
- Geometry I Fall 2018

Graduate teaching associate (for recitations)
The Ohio State University

- Calculus III with differential equations Fall 2017
- Calculus III Fall 2016
- Calculus II Fall 2015, Spring 2015
- Calculus I Fall 2014

Students supervised (with Ph. Michel)

Alexandre Cordonnier Spring 2022
Bachelor's Project

Alec Schmutz Spring 2021
Bachelor's Project

Sofia Giampietro Fall 2019
Master student semester project

Graduate level

Topics in Number Theory Spring 2022
École Polytechnique Fédérale de Lausanne

Abstract Algebra (three lectures as a substitute instructor) Spring 2017
The Ohio State University

HONORS AND
AWARDS

Special Graduate Assignment, departmental fellowship Springs of 2016–2018
The Ohio State University
Awarded for three semesters based on academic merit (exemption from teaching duties).

REFERENCES

Roman Holowinsky

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