

CURRICULUM VITAE

Florian K. Richter

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📄 arXiv: www.arxiv.org/a/richter_f_1

PROFESSIONAL APPOINTMENTS

Tenure Track Assistant Professor Sep. 2021 – present
École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland.

IAS Member Sep. 2022 – Mar. 2023
Institute for Advanced Study, Princeton NJ, USA.

Boas Assistant Professor of Mathematics Sep. 2018 – Aug. 2021
Northwestern University, Evanston IL, USA.

EDUCATION

Doctor of Philosophy Aug. 2012 – Aug. 2018
The Ohio State University, Columbus OH, USA.

Master of Advanced Studies Oct. 2010 – Jun. 2011
University of Cambridge, Cambridge, UK.

Bachelor of Science Oct. 2007 – Jul. 2010
Vienna University of Technology (TU Wien), Vienna, Austria.

RESEARCH AREAS

Ergodic Theory, Topological & Symbolic Dynamics, Arithmetic Combinatorics, Ramsey Theory, Multiplicative Number Theory

PUBLICATIONS¹

- [37] “*An inverse theorem for sumsets of sets of positive density in the integers*”, Ethan Ackelsberg, Florian K. Richter
submitted, 117 pages.
arXiv: [2604.12864](https://arxiv.org/abs/2604.12864)
- [36] “*Weighted averages of arithmetic functions and applications to equidistribution*”, Vitaly Bergelson, Michael Reilly, Florian K. Richter
submitted, 29 pages.
arXiv: [2604.07186](https://arxiv.org/abs/2604.07186)
- [35] “*No Constant-Cost Protocol for Point–Line Incidence*”, Mika Göös, Nathaniel Harms, Florian K. Richter, Anastasia Sofronova
submitted, 17 pages.
arXiv: [2604.03805](https://arxiv.org/abs/2604.03805)
- [34] “*A short proof of Erdős’s $B + C$ conjecture*”, Bryna Kra, Joel Moreira, Florian K. Richter, Donald Robertson
submitted, 8 pages.
arXiv: [2603.27258](https://arxiv.org/abs/2603.27258)

¹Preprints and publications are arranged in reverse chronological order and authors are listed alphabetically; for further information on authorship practices in mathematics, see the [AMS culture statement](#).

- [33] “*Van der Waerden’s theorem on arithmetic progressions – a survey of some historical and modern developments*”, Vitaly Bergelson, Florian K. Richter
submitted, 49 pages.
arXiv: [2603.25922](https://arxiv.org/abs/2603.25922)
- [32] “*Asymptotic independence of $\Omega(n)$ and $\Omega(n+1)$ along logarithmic averages*”, Dimitrios Charamaras, Florian K. Richter
submitted, 44 pages.
arXiv: [2412.17583](https://arxiv.org/abs/2412.17583)
- [31] “*A structure theorem for polynomial return-time sets in minimal systems*”, Daniel Glasscock, Andreas Koutsogiannis, Anh N. Le, Joel Moreira, Florian K. Richter, Donald Robertson
to appear in Transactions of the American Mathematical Society, 33 pages.
arXiv: [2511.02080](https://arxiv.org/abs/2511.02080)
- [30] “*Sums and products in sets of positive density*”, Florian K. Richter
to appear in Algebra & Number Theory, 35 pages.
arXiv: [2507.00515](https://arxiv.org/abs/2507.00515)
- [29] “*The Density Finite Sums Theorem*”, Bryna Kra, Joel Moreira, Florian K. Richter, Donald Robertson
Inventiones Mathematicae, Volume 243 (2026), pp. 1-31.
Doi: [10.1007/s00222-025-01371-8](https://doi.org/10.1007/s00222-025-01371-8)
- [28] “*Problems on infinite sumset configurations in the integers and beyond*”, Bryna Kra, Joel Moreira, Florian K. Richter, Donald Robertson
Bulletin of the American Mathematical Society, Vol. 26 (2025), Nr. 4, pp. 537–574.
Doi: [10.1090/bull/1868](https://doi.org/10.1090/bull/1868)
- [27] “*Interpolation sets for dynamical systems*”, Andreas Koutsogiannis, Anh N. Le, Joel Moreira, Ronnie Pavlov, Florian K. Richter
Transactions of the American Mathematical Society, Vol. 378 (2025), Nr. 2, pp. 1373–1400.
Doi: [10.1090/tran/9300](https://doi.org/10.1090/tran/9300)
- [26] “*A proof of Erdős’s $B + B + t$ conjecture*”, Bryna Kra, Joel Moreira, Florian K. Richter, Donald Robertson
Communications of the American Mathematical Society, Volume 4 (2024), pp. 480–494.
Doi: [10.1090/cams/34](https://doi.org/10.1090/cams/34)
- [25] “*On the local Fourier uniformity problem for small sets*”, Adam Kanigowski, Mariusz Lemańczyk, Florian K. Richter, Joni Teräväinen
International Mathematics Research Notices, Volume 2024, Issue 15, pp. 11488–11512.
Doi: [10.1093/imrn/rnae134](https://doi.org/10.1093/imrn/rnae134)
- [24] “*On the maximal spectral type of nilsystems*”, Ethan Ackelsberg, Florian K. Richter, Or Shalom
Proceedings of the American Mathematical Society, Series B, Vol. 11 (2024), pp. 469–480 .
Doi: [10.1090/bproc/229](https://doi.org/10.1090/bproc/229)
- [23] “*A spectral refinement of the Bergelson-Host-Kra decomposition and new multiple ergodic theorems – CORRIGENDUM*”, Joel Moreira, Florian K. Richter
Ergodic Theory and Dynamical Systems, Volume 44 (2024), Issue 6, pp. 1724–1728.
Doi: [10.1017/etds.2023.61](https://doi.org/10.1017/etds.2023.61)
- [22] “*Infinite Sumsets in Sets with Positive Density*”, Bryna Kra, Joel Moreira, Florian K. Richter, Donald Robertson
Journal of the American Mathematical Society, Volume 37 (2024), pp. 637–682.
Doi: [10.1090/jams/1030](https://doi.org/10.1090/jams/1030)
- [21] “*Additive and geometric transversality of fractal sets in the integers*”, Daniel Glasscock, Joel Moreira, Florian K. Richter
Journal of the London Mathematical Society, Volume 109 (2024), Issue 5, e12902.
Doi: [10.1112/jlms.12902](https://doi.org/10.1112/jlms.12902)

- [20] “Multiple ergodic averages along functions from a Hardy field: convergence, recurrence and combinatorial applications”, Vitaly Bergelson, Joel Moreira, Florian K. Richter
Advances in Mathematics, Volume 443 (2024), 109597.
Doi: [10.1016/j.aim.2024.109597](https://doi.org/10.1016/j.aim.2024.109597)
- [19] “Zero-one laws for eventually always hitting points in mixing systems”, Dmitry Kleinbock, Ioannis Konstantoulas, Florian K. Richter
Mathematical Research Letters, Volume 30 (2023), Number 3, pp. 765–805.
Doi: [10.4310/MRL.2023.v30.n3.a7](https://doi.org/10.4310/MRL.2023.v30.n3.a7)
- [18] “Disjointness for measurably distal group actions and applications”, Joel Moreira, Florian K. Richter, Donald Robertson
Ergodic Theory and Dynamical Systems, Volume 43 (2023), Issue 6, pp. 1952–1979.
Doi: [10.1017/etds.2022.19](https://doi.org/10.1017/etds.2022.19)
- [17] “A combinatorial proof of a sumset conjecture of Furstenberg”, Daniel Glasscock, Joel Moreira, Florian K. Richter
Combinatorica, Volume 43 (2023), pp. 299–328.
Doi: [10.1007/s00493-023-00008-9](https://doi.org/10.1007/s00493-023-00008-9)
- [16] “Uniform distribution in nilmanifolds along functions from a Hardy field”, Florian K. Richter
Journal d’Analyse Mathématique, Volume 149 (2023), pp. 421–483.
Doi: [10.1007/s11854-022-0253-0](https://doi.org/10.1007/s11854-022-0253-0)
- [15] “Dynamical generalizations of the Prime Number Theorem and disjointness of additive and multiplicative semigroup actions”, Vitaly Bergelson, Florian K. Richter
Duke Mathematical Journal, Volume 171 (2022), Number 15, pp. 3133–3200.
Doi: [10.1215/00127094-2022-0055](https://doi.org/10.1215/00127094-2022-0055)
- [14] “On Katznelson’s Question for skew product systems”, Daniel Glasscock, Andreas Koutsogiannis, Florian K. Richter
Bulletin of the American Mathematical Society, Volume 59 (2022), Number 4, pp. 569–606.
Doi: [10.1090/bull/1764](https://doi.org/10.1090/bull/1764)
- [13] “A new elementary proof of the Prime Number Theorem”, Florian K. Richter
Bulletin of the London Mathematical Society, Volume 53 (2021), Issue 5, pp. 1365–1375.
Doi: [10.1112/blms.12503](https://doi.org/10.1112/blms.12503)
- [12] “Structure of multicorrelation sequences with integer part polynomial iterates along primes”, Andreas Koutsogiannis, Anh N. Le, Joel Moreira, Florian K. Richter
Proceedings of the American Mathematical Society, Volume 149, (2021), Number 1, pp. 209–216.
Doi: [10.1090/proc/15185](https://doi.org/10.1090/proc/15185)
- [11] “A decomposition of multicorrelation sequences for commuting transformations along primes”, Anh N. Le, Joel Moreira, Florian K. Richter
Discrete Analysis, 2021:4, 27 pages.
Doi: [10.19086/da.22056](https://doi.org/10.19086/da.22056)
- [10] “Single and multiple recurrence along non-polynomial sequences”, Vitaly Bergelson, Joel Moreira, Florian K. Richter
Advances in Mathematics, Volume 368 (2020), 107146.
Doi: [10.1016/j.aim.2020.107146](https://doi.org/10.1016/j.aim.2020.107146)
- [09] “A Structure Theorem for Level Sets of Multiplicative Functions and Applications”, Vitaly Bergelson, Joanna Kułaga-Przymus, Mariusz Lemańczyk, Florian K. Richter
International Mathematical Research Notices, Volume 2020 (2020), Issue 5, pp. 1300–1345.
Doi: [10.1093/imrn/rny040](https://doi.org/10.1093/imrn/rny040)
- [08] “A proof of a sumset conjecture of Erdős”, Joel Moreira, Florian K. Richter, Donald Robertson
Annals of Mathematics, Volume 189 (2019), Number 2, pp. 605–652.
Doi: [10.4007/annals.2019.189.2.4](https://doi.org/10.4007/annals.2019.189.2.4)

- [07] “*Multiplicative combinatorial properties of return time sets in minimal dynamical systems*”, Daniel Glasscock, Andreas Koutsogiannis, Florian K. Richter
Discrete and Continuous Dynamical Systems, Volume 39 (2019), Number 10, pp. 5891–5921.
Doi: [10.3934/dcds.2019258](https://doi.org/10.3934/dcds.2019258)
- [06] “*Rationally almost periodic sequences, polynomial multiple recurrence and symbolic dynamics*”, Vitaly Bergelson, Joanna Kułaga-Przymus, Mariusz Lemańczyk, Florian K. Richter
Ergodic Theory and Dynamical Systems, Volume 39 (2019), Issue 9, pp. 2332–2383.
Doi: [10.1017/etds.2017.130](https://doi.org/10.1017/etds.2017.130)
- [05] “*A generalization of Kátai’s orthogonality criterion with applications*”, Vitaly Bergelson, Joanna Kułaga-Przymus, Mariusz Lemańczyk, Florian K. Richter
Discrete and Continuous Dynamical Systems, Volume 39 (2019), Number 5, pp. 2581–2612.
Doi: [10.3934/dcds.2019108](https://doi.org/10.3934/dcds.2019108)
- [04] “*A spectral refinement of the Bergelson-Host-Kra decomposition and new multiple ergodic theorems*”, Joel Moreira, Florian K. Richter
Ergodic Theory and Dynamical Systems, Volume 39 (2019), Issue 4, pp. 1042–1070.
Doi: [10.1017/etds.2017.61](https://doi.org/10.1017/etds.2017.61)
- [03] “*On the density of coprime tuples of the form $(n, \lfloor f_1(n) \rfloor, \dots, \lfloor f_k(n) \rfloor)$, where f_1, \dots, f_k are functions from a Hardy field*”, Vitaly Bergelson, Florian K. Richter
Number Theory – Diophantine Problems, Uniform Distribution and Applications, Festschrift in Honour of Robert F. Tichy’s 60th Birthday, Springer International Publishing (2017), pp. 109–135.
Doi: [10.1007/978-3-319-55357-3_5](https://doi.org/10.1007/978-3-319-55357-3_5)
- [02] “*Revisiting the Nilpotent Polynomial Hales-Jewett Theorem*”, John H. Johnson, Florian K. Richter
Advances in Mathematics, Volume 321 (2017), pp. 269–286.
Doi: [10.1016/j.aim.2017.09.033](https://doi.org/10.1016/j.aim.2017.09.033)
- [01] “*Large subsets of discrete hypersurfaces in \mathbb{Z}^d contain arbitrarily many collinear points*”, Joel Moreira, Florian K. Richter
European Journal of Combinatorics, Volume 54 (2016), pp. 163–176.
Doi: [10.1016/j.ejc.2015.12.012](https://doi.org/10.1016/j.ejc.2015.12.012)

GRANTS

- SNSF Starting Grant** (TMSGI2.211214/1), Principal Investigator 2024–2029
5-year Starting Grant from the Swiss National Science Foundation; Title: “*Ergodic Methods in Number Theory*”.
- AIM SQuaRE Collaborative Grant**, Co-Principal Investigator 2021–2024
American Institute of Mathematics – Structured Quartet Research Ensembles; 3-year collaborative grant with D. Glasscock (UMass Lowell), A. Koutsogiannis (Aristotle University of Thessaloniki), J. Moreira (University of Warwick), and D. Robertson (Manchester University).
- NSF Grant** (DMS-1901453), Principal Investigator 2019–2022
3-year research grant from the US National Science Foundation, Division of Mathematical Sciences, Analysis program; Title: “*Investigations in Combinatorics and Number Theory via Ergodic Theoretic Methods*”.

RESEARCH AWARDS

- 2025 Frontiers of Science Awards** Feb. 2025
The Frontiers of Science Awards are prizes presented by the International Congress of Basic Sciences (ICBS) to honor major breakthroughs in Mathematics, Physics, or Theoretical Computer and Information Sciences. In 2025, I received two Frontiers of Science Awards, one in recognition of the paper “*A proof of a sumset conjecture of Erdős*” and another for the paper entitle “*Infinite sumsets in sets with positive density*” jointly with Bryna Kra, Joel Moreira, and Donald Robertson.

Louise B.C. Vetter Award

This research award was sponsored by the Ohio State chapter of the Phi Kappa Phi Honor Society. I was selected from a pool of Ohio State Graduate School Presidential Fellows for excellence in research.

Oct. 2017

The Ohio State Presidential Fellowship

The Presidential Fellowship is a research award given to graduate students by the Ohio State University Graduate School. Fellows are selected through a university-wide competition led by a faculty committee. This award provided a generous stipend and full tuition support for a twelve month period.

Apr. 2017

TEACHING AWARDS**Golden Polysphere Award**

I received the *2024 Polysphère d'or (Golden Polysphere)* award for outstanding teaching. This prize is the highest award a professor can receive directly from the students at EPFL.

Oct. 2024

Best Teacher of the Year – Mathematics Section

For the academic year 2023/24, I received the EPFL award for best teacher in the mathematics section.

Aug. 2024

RESEARCH TALKS

This list comprises invited talks delivered at seminars, conferences, colloquia, workshops, and lecture series.

Dynamics Seminar	University of Michigan	Apr 2026
Colloquium	University of Michigan	Apr 2026
Bellow Academic Memorial	Northwestern University	Apr 2026
Discrete Analysis Seminar	University of Cambridge	Mar 2026
Conference ELAZ 2026	bifeb Strobl, Salzburg	Feb 2026
The Recurrent ETDS Seminar	online seminar	Feb 2026
Number Theory Seminar	Stanford University	Nov 2025
Stockholm Master Class in Dynamical Systems	KTH & Stockholm University	May 2025
New Perspectives on Partition Regularity	University of Warwick	Apr. 2025
PAD 2025: Probability, Analysis and Dynamics	Heilbronn Institute	Apr. 2025
Number Theory Web Seminar	www.ntwebseminar.org	Mar. 2025
Colloquium	University of Bern	Sep. 2024
Additive Combinatorics Conference	ICMS, Edinburgh	Aug. 2024
Groups and Geometry Seminar	University of Geneva	Nov. 2023
New England Dynamics Seminar	Brown University	Dec. 2023
Pointwise Ergodic Theory & Connections	King's College, London	Jun. 2023
Nilpotent structures in topological dynamics, ergodic theory and combinatorics	MRCC Bedlewo, Poland	Jun. 2023
Number Theory Seminar	IST Austria	May 2023
Korea Online Ergodic Theory Seminar	Postech, Korea	May 2023
Graduate Research Opportunities for Women	Max-Planck Institute, Bonn	Apr. 2023
Special Year Workshop	IAS, Princeton	Mar. 2023
Combinatorics seminar	MIT	Feb. 2023
Colloquium	Northwestern University	Feb. 2023
Combinatorics Student Seminar	Princeton University	Jan. 2023

Online Analysis Research Seminar (OARS)	Online Seminar	Dec. 2022
Ergodic Theory and Dynamical Systems Seminar	Northwestern University	Nov. 2022
Dynamics Seminar	University of Illinois at Chicago	Nov. 2022
Seminar	IAS, Princeton	Sep. 2022
ULTRAMATH Conference	Università di Pisa	Jun. 2022
Ergodic Theory Seminar	ETH Zürich	Apr. 2022
Colloquium	UMass Lowell	Feb. 2022
Ergodic Theory and Analysis Seminar	Rutgers University	Feb. 2022
Colloquium	Northwestern University	Feb. 2021
Colloquium	Carnegie Mellon University	Feb. 2021
Colloquium	University of Montreal	Jan. 2021
Colloquium	Stony Brook University	Jan. 2021
Colloquium	EPFL	Jan. 2021
Colloquium	University of Texas at Austin	Jan. 2021
Colloquium	University of Notre Dame	Jan. 2021
Colloquium	Texas A&M	Dec. 2020
Colloquium	University of Manchester	Dec. 2020
Colloquium	University of Waterloo	Dec. 2020
Colloquium	Queen's University	Nov. 2020
Midwest Virtual Dynamics Seminar	University of Chicago	Oct. 2020
One Day Dynamics Meeting	CMM – Universidad de Chile	Jun. 2020
Joint PU/IAS Number Theory Seminar	Princeton University	Jun. 2020
Ergodic Theory Seminar	Nicolaus Copernicus University	Jun. 2020
ETDS Seminar	University of Warwick	May 2020
Virtual Lecture Series in Dynamics	University of Maryland	Apr. 2020
Midwest Dynamics Day	Northwestern University	Mar. 2020
Number Theory Seminar	Harvard University	Feb. 2020
Weihnachtskolloquium	Technische Universität Wien	Dec. 2019
Lund Shrinking Targets Workshop	University of Lund	Dec. 2019
Joint Analysis Seminar of UCLA & Caltech	UCLA	Nov. 2019
AMS Sectional Meeting	University of Florida, Gainesville	Nov. 2019
Arbeitsgemeinschaft Diskrete Mathematik	Technische Universität Wien	Jun. 2019
Ergodic Theory Seminar	The Ohio State University	Apr. 2019
Arbeitsgemeinschaft Diskrete Mathematik	Technische Universität Wien	May 2018
Combinatorics seminar	Brandeis University	Apr. 2018
AMS Spring Eastern Sectional Meeting	Northeastern University	Apr. 2018
Complex Analysis Seminar	Indiana University Bloomington	Mar. 2018
Ultrafilters, Ramsey Theory and Dynamics	University of Lyon	Nov. 2017
Ergodic Theory Seminar	The Ohio State University	Sep. 2017
Max Dehn Seminar	The University of Utah	Sep. 2017
NU Dynamical Systems Seminar	Northwestern University	Oct. 2016
Mathematical Research Lecture Series	The Ohio State University	Aug. 2016

PHD STUDENTS

- ◆ Jovan Andreevski, 2025-2029 (anticipated)
- ◆ Felipe Osiel Hernández Castro, 2023-2027 (anticipated)
- ◆ Dimitrios Charamaras, 2021-2025

TEACHING EXPERIENCE

Courses taught at **École Polytechnique Fédérale de Lausanne (EPFL)**:

Spring 2026	<i>Analysis II for Engineers</i>
Fall 2025	<i>Combinatorial Number Theory</i>
Fall 2025	<i>Ergodic Theory</i>
Spring 2025	<i>Analysis II for Engineers</i>
Fall 2024	<i>Combinatorial Number Theory</i>
Fall 2024	<i>Ergodic Theory</i>
Spring 2024	<i>Analysis II for Engineers</i>
Fall 2023	<i>Combinatorial Number Theory</i>
Fall 2023	<i>Ergodic Theory</i>
Spring 2023	<i>Ergodic Theory</i>
Spring 2023	<i>Combinatorial Number Theory</i>
Spring 2022	<i>Ergodic Theory</i>
Fall 2021	<i>Combinatorial Number Theory</i>

Courses taught at **Northwestern University**:

Spring 2021	<i>Graduate Topics Course in Dynamical Systems</i>
Spring 2021	<i>Multivariable Integral Calculus for Engineering</i>
Winter 2021	<i>Foundations of Higher Mathematics</i>
Winter 2020	<i>Multiple Integration and Vector Calculus</i>
Fall 2019	<i>Multivariable Differential Calculus</i>
Fall 2019	<i>Quantitative Reasoning (for the Northwestern Prison Education Program)</i>
Spring 2019	<i>Foundations of Higher Mathematics</i>
Fall 2018	<i>Single-Variable Differential Calculus</i>

List of **summer schools** and **mini-courses** taught:

Spring 2025	Mini-course titled <i>Ergodic Methods in Combinatorics</i> at the Stockholm Master Class in Dynamical Systems
Summer 2021	Mini-course titled <i>Dynamics and Infinitary Combinatorics</i> at the summer school “Expanding Dynamics – Creative Online Ventures in Dynamics”
Summer 2016	<i>Real Analysis</i> course for the PhD Headstart Program at the Ohio State University

Courses assisted with at **The Ohio State University**:

Spring 2017	<i>Multivariable Differential and Integral Calculus</i>
Fall 2015	<i>Calculus for Business</i>
Fall 2014	<i>Engineering Math A</i>
Spring 2014	<i>Calculus for Business</i>
Fall 2013	<i>Engineering Math A</i>
Spring 2013	<i>Calculus 1</i>
Fall 2012	<i>Calculus 1</i>

Courses I assisted with at **Vienna University of Technology (TU Wien)**:

Spring 2010	<i>Discrete Mathematics for Computer Sciences</i>
Fall 2009	<i>Discrete Mathematics for Computer Sciences</i>

CONFERENCE ORGANIZATION

- Ergodic Ramsey Theory Conference** Nov. 7–8, 2020
Supported by The Ohio State University and held online due to the COVID-19 pandemic, this international conference brought together leading researchers and early-career scholars to explore recent advances in ergodic theory, dynamical systems, and their applications to combinatorics.
- NUET 2024** Jul. 29–Aug. 9, 2024
This program, for which I was one of the main organizers, was supported by the RTG “Dynamics: Classical, Modern, and Quantum” and held at Northwestern University in Evanston. It consisted of a one-week summer school (July 29–August 2, 2024), where three leading researchers each delivered a mini-course aimed at PhD students and postdoctoral researchers. This was followed by the *NU Trends in Ergodic Theory* conference (August 5–9, 2024), which brought together researchers from across the field.
- Perspectives on Ergodic Theory and its Interactions** Jun, 23–27, 2025
I was one of the main organizers of the conference *Perspectives on Ergodic Theory and its Interactions*, which was held June 23–27, 2025, at the Institute of Mathematics of the Polish Academy of Sciences (IM PAN) in Warsaw, Poland. The event celebrates the influential work of Vitaly Bergelson, whose ideas have had a profound impact on ergodic theory, additive combinatorics, and number theory.
- Summer School on Combinatorics, Number Theory and Ergodic Theory** Jul. 14–18, 2025
This workshop, part of the Bernoulli Center program at EPFL, was a week-long event focused on recent advances in additive combinatorics and number theory. It was aimed at graduate students and postdoctoral researchers, and highlighted connections with dynamics, ergodic theory, and higher-order Fourier analysis.
- PCMI summer session 2027** I am organizing the 2027 PCMI (Park City Mathematics Institute) summer session on the theme “*Patterns, Primes and Dynamics.*” PCMI has two main components: the Graduate Summer School (GSS) and the Research Program (RP). The GSS features a sequence of coordinated minicourses covering topics in ergodic theory, number theory, and harmonic analysis, and is aimed at graduate students. The Research Program brings together leading mathematicians and provides an environment for collaboration, research talks, and interaction with participants at different career stages. Jul. 14–18, 2025

OUTREACH SERVICE

- Young Researchers in Mathematics Program** 2022 – present
In summer 2022, I initiated a new program at the Bernoulli Center for Fundamental Studies offering an immersive mathematical research experience for undergraduate students. The purpose of this program is to foster enthusiasm for continued research in mathematics, guide budding mathematicians towards their first publication, and encourage students from underrepresented groups to pursue a PhD in mathematics. This is the first program of this kind in mathematics in Switzerland. To date, there have been three installments of the program: summer 2022, summer 2023, and summer 2024. Here is a link to the program’s website: <https://bernoulli.epfl.ch/young/>.
- Northwestern Prison Education Program (NPEP)** Fall 2019
Held at the Stateville Maximum Security Prison, a maximum-security correctional facility for men in Chicago, the Northwestern Prison Education Program (NPEP) fills a vital need in Illinois by being the only Bachelor’s degree awarding education program in a prison in the state offering a comprehensive liberal arts curriculum. In fall quarter 2019, I was the first instructor from the mathematics department to participate in the program by designing and teaching a college-level course in mathematical literacy and quantitative reasoning to a cohort of 21 incarcerated students. Here is a [link to the NPEP website](#).

Comité camps d'été pour gymnasiens.

I am part of a committee that created a new type of math camp for high school students called *Pensée Mathématique*. The program, which is organized in collaboration with EPFL's *service de promotion de l'éducation (SPE)*, ran successfully for the first time in fall 2023, and is scheduled to run again in fall 2024. Here is a [link to the program's website](#).

2022 –
present

MEDIA OUTREACH

- In 2020 the *Quanta Magazine*, an online news outlet founded by the Simons Foundation focusing on public service journalism in mathematics, published an article on my paper *A new elementary proof of the Prime Number Theorem*. The article is called “Mathematicians Will Never Stop Proving the Prime Number Theorem” and is [available online](#).
- In 2022, the *Quanta Magazine* published another article on my research, featuring my recent work on the Erdős sunset conjecture titled “From Systems in Motion, Infinite Patterns Appear”. A link to the article can be found [here](#).
- Each year the *Institute of Advanced Study* at Princeton publishes an article featuring some of the work done by members of the School of Mathematics for a broader audience. In 2023, the article concerned my work on Erdős's $B + B + t$ conjecture and is available on the [IAS website](#).
- On occasion, my work was featured on Terrence Tao's prominent online blog: see [here](#) and [here](#).

PROFESSIONAL AFFILIATIONS

Member of the AMS (American Mathematical Society)

Member of the OeMG (Austrian Mathematical Society)

Member of the SMS (Swiss Mathematical Society)