

Andreas Wieser

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EDUCATION

PhD in Mathematics, ETH Zurich 2016 – 2021
Advisors: Menny Aka, Manfred Einsiedler

MSc in Mathematics, ETH Zurich 2016
Graduated with distinction, GPA 6/6
Thesis: *Linnik's problems: An ergodic theoretic proof of two equidistribution results* supervised by Manfred Einsiedler

BSc in Physics and Mathematics, ETH Zurich 2013/2014
GPA: 5.04/6 resp. 5.57/6

POSITIONS

Member, Institute for Advanced Study, Princeton Jan. 2025 – July 2026

Visitor, Institute for Advanced Study, Princeton Fall 2024

Visiting Scholar, University of California at San Diego Fall 2024

Postdoctoral Fellow, Jerusalem 2021–2024
*Einstein Institute of Mathematics, Hebrew University,
with Elon Lindenstrauss*

RESEARCH VISITS

Northwestern University, Evanston Oct. 2020 – March 2021
Visiting Predoctoral Fellow, invited by Ilya Khayutin.

Hausdorff Institute of Mathematics, Bonn Jan. 2020 – March 2020
Attending the program 'Dynamics: Topology and Numbers'.

PAPERS

1. A. Wieser, *Linnik's problems and maximal entropy methods*. Monatsh. Math. 190(1):153-208, 2019. [Link](#)
2. M. Aka, M. Einsiedler, A. Wieser, *Planes in four space and four associated CM points*, Duke Math. J. 171(7) 1469-1529, 2022. [Link](#)
3. M. Aka, M. Luethi, Ph. Michel, A. Wieser, *Simultaneous supersingular reductions of CM elliptic curves*. J. Reine Angew. Math 2022(786) 1-43, 2022. [Link](#)
4. M. Aka, A. Musso, A. Wieser, *Equidistribution of rational subspaces and their shapes*. Ergod. Theory Dyn. Syst. 44(8) 2009-2062, 2024. [Link](#)
5. A. Wieser, P. Yang, *A uniform Linnik basic lemma and entropy bounds*, 2022. To appear in Comment. Math. Helv. [Link](#)
6. O. Solan, A. Wieser, *Birkhoff genericity for points on curves in expanded horospheres*. Selecta Math. (N.S.) 31 (2025), no. 5, Paper No. 105. [Link](#)
7. M. Aka, P. Feller, A.B. Miller, A. Wieser, *Seifert surfaces in the four-ball and composition of binary quadratic forms*. arXiv:2311.17746, 2023. [Link](#)
8. A. Wieser, *Effective equidistribution of orbits under semisimple groups on congruence quotients*. arXiv:2407.12760, 2024. [Link](#)
9. E. Lindenstrauss, G. Margulis, A. Mohammadi, N. Shah, A. Wieser, *An effective closing lemma for unipotent flows*, 2024. To appear in Journal d'Analyse Math. [Link](#)

10. M. Einsiedler, E. Lindenstrauss, A. Mohammadi, A. Wieser, *Effective equidistribution of semisimple adelic periods and representations of quadratic forms*. arXiv:2503.21068, 2025. [Link](#)
11. W. Kim, A. Wieser, P. Yang, *Representations of binary by quaternary quadratic forms*, preprint 2025. [Video](#)

AWARDS

- *SNSF* Postdoc.mobility fellowship, Swiss National Science Foundation, 136'000 CHF 2024–2026
- *SNSF* Doc.mobility fellowship, Swiss National Science Foundation, 41'042 CHF 2020–2021
- *ETH medal* for outstanding master thesis, ETH Zurich. 2016
- *Willi Studer prize* for best graduate in 2016, ETH Zurich. 2016

REFEREE

In no particular order: IMRN, Commentarii Mathematici Helvetici, Journal of the London Mathematical Society, Proceedings of the London Mathematical Society, Pure and Applied Mathematics Quarterly, Quarterly Journal of Mathematics, Journal of Modern Dynamics, Forum Mathematicum, Duke Math J., Israel Journal of Math., Memoirs of the AMS.

INVITED TALKS

- *Group Actions and Dynamics Seminar*, Yale University, Dec 1, 2025.
- *Groups and Dynamics Seminar*, IAS & Princeton University, Nov 18, 2025.
- *Number Theory Seminar*, Rutgers, Nov 11, 2025.
- *Colloquium talk*, Texas A&M, Nov 7, 2025.
- *Dynamics Seminar*, University of Chicago, Oct 27, 2025.
- *Analysis Seminar*, MIT, Oct 7, 2025.
- *Recent Developments in Sparse Equidistribution*, Brin Center in Maryland, Sep 11, 2025. [Link](#)
- *YMLS lecture*, National University of Singapore, Aug 20, 2025. [Link](#)
- *Interactions between Harmonic Analysis, Homogeneous Dynamics, and Number Theory*, SL Math, Mar 3, 2025. [Link](#)
- *PU/IAS number theory seminar*, Princeton, Nov 14, 2024. [Video](#).
- *BJF Interview*, University of Bonn, Nov 8, 2024.
- *Dynamics Seminar*, University of Illinois at Chicago, Oct 30, 2024.
- *Dynamical Systems Seminar*, Penn State, Oct 28, 2024.
- *Recent Trends in Homogeneous and Teichmüller Dynamics*, Brin Center, University of Maryland, Sep 2024. [Link](#)
- *Ergodic Theory Seminar*, Ohio State University, Sep 4, 2024.
- *Distribution of orbits: Arithmetics and Dynamics*, Flüeli-Ranft, Jul 10, 2024. [Link](#)
- *Dynamics Seminar*, Hebrew University of Jerusalem, Jun 25, 2024.
- *Morningside Center of Mathematics*, Beijing, Apr 30, 2024.
- *N-cube days XIX*, Copenhagen, Nov 17, 2023. [Link](#)
- *Topology & Geometry*, NUS, Singapore, Nov 6, 2023.
- *2023 RTG Summer School*, Evanston, Jun 26, 2023.
- *Diophantine Analysis, Dynamics and Related Topics*, Technion, Feb 5, 2023. [Link](#)
- *Crosscurrents in number theory, analysis and geometry*, Paris, Dec 8, 2022. [Link](#)

- *Dynamics Seminar*, Academy of Mathematics and Systems Sciences, CAS, Nov 10, 2022.
- *Ergodic Theory and Dynamical Systems Seminar*, Zurich, Oct 10, 2022.
- *Dynamics Seminar*, Hebrew University, Mar 22, 2022.
- *PET Seminar*, Ben-Gurion University, Dec 16, 2021.
- *Midrasha on Groups*, Weizmann Institute, Dec 13, 2021.
- *Groups and Dynamics*, Tel Aviv, Nov 18, 2021.
- *Expanding Dynamics X*, Zoom, Mar 23, 2021. [Link](#)
- *Zoom Dynamical Systems Seminar*, Penn State, Feb 23, 2021. [Abstract](#)
- *Midwest Dynamics and Group Actions Seminar*, Zoom, Nov 23, 2020.
- *Geometry Graduate Colloquium*, Zürich, Oct 8, 2020.
- *ICTS conference – Smooth and homogeneous dynamics*, Bangalore, Sep 30, 2019. [Video](#).
- *Zurich graduate colloquium*, Zürich, Nov 6, 2018.
- *ETDS morning seminar*, Zürich, Oct 25, 2018.
- *5th Workshop on Operator Theoretic Aspects of Ergodic Theory*, Tübingen, Nov 17, 2017.

ATTENDED CONFERENCES AND WORKSHOPS

(In addition to the above)

- *Workshop on dynamical systems and related topics*, University of Maryland, April 2025.
- *Dynamics week in Jerusalem*. Hebrew University, July 2022.
- *Ergodic geometry, number theory and Margulis legacy: the next generation*. University of Chicago, June 2022. [Link](#)
- *Arithmetic, geometry, and modular forms: a conference in honor of Bill Duke*. ETH Zurich, June 2019. [Link](#)
- *Number Theory and Dynamics*. University of Cambridge, March 2019.
- *Dynamics: Topology and Numbers*. Max Planck Institute for Mathematics (Bonn), July 2018. [Link](#).
- *New Methods for Zimmer's Conjecture*. IPAM (UCLA), January 2018. [Link](#).
- *Ergodic Theory: Numbers, Fractals, and Geometry*. Clay research workshop, Clay Mathematics Institute (Oxford), September 2017. [Link](#).
- *4th Workshop on Operator Theoretic Aspects of Ergodic Theory*. Feldkirch, May 2017.
- *Distinguished Lectures in Dynamics*. Tata Institute of Fundamental Research (Mumbai), April 2017.
- *Applications of Ergodic Theory in Number Theory*. CIRM doctoral school (Luminy), October 2016.

LECTURE NOTES

Analysis I/II with Manfred Einsiedler, in German, available [here](#).

These are extensive lecture notes for the first year course in analysis at ETH Zurich. They were written during the academic years 2016-2017 and 2017-2018, and also used by Peter Jossen and Alessio Figalli thereafter.

TEACHING

- Organizing student seminars:
 - *Functional Analysis III, Unitary Representations*, with M. Einsiedler, Fall 2019.
 - *Primes of the form $x^2 + ny^2$* , with M. Aka and M. Lüthi, Spring 2019.
 - *Counting problems and homogeneous dynamics*, with M. Einsiedler and M. Lüthi, Spring 2018. [Link](#).
 - The teaching concept for this seminar is described in detail in the article M. Luethi, A. Wieser, Self-assessment in undergraduate student seminars in mathematics, ETH Learning and Teaching Journal 2(1):49-57, 2020. [Link](#).*
 - *Arithmetic of quadratic forms*, with M. Aka, Spring 2017. [Link](#).
- Main assistant:
 - *Functional Analysis II*, taught by M. Einsiedler, Spring 2019. [Link](#).
 - *Functional Analysis I*, taught by M. Einsiedler, Fall 2018. [Link](#).
- Teaching Assistant: Commutative Algebra, Complex Analysis, Topology, Linear Algebra II, Methods of Mathematical Physics.

SUPERVISED STUDENTS

- Andrea Musso, *Equidistribution of rational subspaces and their shapes*
Master thesis advised jointly with M. Aka,
A.M. received Willi Studer prize 2020
- René Pfitscher, *Lattices, quantitative non-divergence, and some finiteness properties of adèle groups*
Bachelor thesis advised jointly with M. Einsiedler 2020
- Horace Chaix, *Eskin, Rudnick and Sarnak's proof of Siegel's weight formula*
Master thesis advised jointly with M. Einsiedler 2020
- Muriel Egli, *Equidistribution of planes in the matrix algebra*
Master thesis advised jointly with M. Aka 2019

LANGUAGES

German – native speaker
Italian – native speaker
English – fluent
French – intermediate