

# Manuel W. Luethi

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CONTACT INFORMATION EPFL [manuel.luethi@epfl.ch](mailto:manuel.luethi@epfl.ch)  
CH-1015 Lausanne <https://manuelluethi.github.io>

## EDUCATION

**ETH Zürich** Zürich, CH  
PhD, ETH Mathematics, March 2015 until October 2019  
*Thesis:* Some applications of rigidity of higher rsnk diagonalizable actions to number theory  
*Supervisor:* Prof. Manfred Einsiedler  
M.Sc., ETH Mathematics, September 2011 until September 2014  
*Thesis:* On a Relative Fixed Point Property  
*Supervisor:* Prof. Marc Burger  
B.Sc., ETH Mathematics, September 2008 until September 2012  
*Thesis:* Effective Decay of Matrix Coefficients for  $SL_d(\mathbb{Q}_p)$   
*Supervisors:* Prof. Manfred Einsiedler, U. Shapira  
**Universität Basel** Basel, CH  
B.A., B&E, Major in Economics, October 2004 until October 2007.

## RECENT OCCUPATION

**EPF Lausanne** Postdoc  
*Supervisor: Prof. Philippe Michel*  
since September 2021  
**Tel Aviv University** Postdoc  
*Supervisor: Prof. Barak Weiss*  
October 2019 until August 2021  
**ETH Zürich** Assistant / PhD student in pure mathematics  
*Supervisor: Prof. Manfred Einsiedler*  
March 2015 until October 2019  
**Hebrew University of Jerusalem** Research stay  
*SNSF Fellow, Host: Prof. Elon Lindenstrauss*  
October 2018 until March 2019  
**RSN AG** Areas Concepts, Models and Algorithms  
*Developement of algorithms and implementation within product range*  
March 2013 until February 2015

## TEACHING EXPERIENCE

**Fall 2022** Lecturer for Introduction to Analytic Number Theory  
**Spring 2022** Lecturer for Algebraic Number Theory  
**Fall 2021** TA for Algèbre linéaire avancée I  
**Spring 2018** Seminar on Homogeneous Dynamics and Counting Problems, joint with A. Wieser  
**Fall 2016-spring 2018** Assistant for Linear Algebra I and II for mathematicians and physicists  
**Spring 2016** Assistant for Unitary Representations of Lie Groups and Discrete Subgroups of Lie Groups  
**Fall 2015** Assistant for Introduction to Lie Groups  
**Spring 2015** Teaching Assistant for Functional Analysis

## PREPRINTS AND PUBLICATIONS

*Random Walks, Spectral Gaps, and Khintchine's Theorem on Fractals*, <https://arxiv.org/abs/2101.05797>, joint with O. Khalil  
*Simultaneous supersingular reductions of CM elliptic curves*, <https://arxiv.org/abs/2005.01537>, joint with M. Aka, Ph. Michel, and A. Wieser  
*Primitive rational points and higher powers on expanding horocycles in the Modular Surface*, <https://arxiv.org/abs/1901.03078>, joint with M. Einsiedler,

and N. Shah

*Primitive rational points on expanding horospheres in Hilbert modular surfaces*,  
<https://arxiv.org/abs/1901.01967>

*Kloosterman sums, disjointness and equidistribution*, joint with M. Einsiedler,  
in: Ferenczi S., Kuřaga-Przymus J., Lemańczyk M. (eds) *Ergodic Theory and  
Dynamical Systems in their Interactions with Arithmetics and Combinatorics*.  
LNM, vol 2213. Springer, Cham

INVITED

CONFERENCES  
AND TALKS

**07/10/2021** Groups, Arithmetic and Algebraic Geometry seminar, EPFL, Lau-  
sanne.

**15/06/2021** Dynamics seminar, The Hebrew University of Jerusalem.

**18/03/2020** Dynamics on homogeneous spaces, Hausdorff research institute for  
mathematics, Bonn.

**28/11/2019** BGU Probability and Ergodic Theory seminar, Ben Gurion Univer-  
sity, Be'er Sheva.

31/10/2019 Groups, Dynamics and Related Topics, Technion, Haifa.

02/10/2019 ICTS conference – Smooth and homogeneous dynamics, Bangalore.

**14/03/2019** Groups & Dynamics, The Hebrew University of Jerusalem.

**17/01/2019** Groups, Dynamics and Related Topics, Technion, Haifa.

**09/10/2018** Ergodic Theory / Probability Seminar, The Ohio State University.

**27/09/2018** Dynamics Working Seminar, University of Zurich and ETHZ.

**17/11/2017** 5th Miniworkshop on Operator Theoretic Aspects of Ergodic Theory,  
Universität Tübingen .

**03/03/2015** Groups and Analysis, Université de Neuchâtel.