

# Curriculum Vitae

## Personal Data

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Name Timo Richarz  
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Birth date, place 01.04.1987, Bad Honnef, Germany

## Experience

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starting 01/19 **Assistant professorship** (no tenure track), TU Darmstadt  
02/18 – 12/18 **Postdoc**, with Prof. Dr. Laurent Fargues, Institut de Mathématiques de Jussieu  
10/16 – 01/18 **Postdoc**, with Prof. Dr. Jochen Heinloth, University of Duisburg-Essen  
08/16 – 09/16 **Guest program**, Max-Planck-Institut für Mathematik, Bonn  
08/14 – 07/16 **Fellow** for Teach First Deutschland at a highschool in Cologne  
→ Teaching children mathematics and philosophy  
→ Projects with external partners in mathematics, environmental education and interview training  
10/11 – 03/14 **Scientific Assistant**, Bonn University  
→ Assistant for lecture courses of Prof. Dr. Michael Rapoport  
→ Exercise groups for master students in Topology and Complex Geometry  
04/07 – 03/10 **Student Assistant**, Bonn University  
→ Exercise groups for bachelor students in Analysis and Algebra

## Education

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04/14 – 07/14 **Trainee** at Teach First Deutschland  
→ Preparation for work in schools: focus in leadership and teaching  
09/10 – 03/14 **Dissertation** in mathematics with Prof. Dr. Michael Rapoport, Bonn University (Grade: 0,0 summa cum laude)  
→ Title: Affine Grassmannians and Geometric Satake Equivalences  
10/06 – 08/10 **Diploma** in mathematics with Prof. Dr. Michael Rapoport, Bonn University (Grade: 1,1)  
→ Diploma Thesis: Local models of Schubert varieties in twisted affine Grassmannians (Grade: 1,0)  
until 06/06 **Abitur** (German A-level equivalent), Bischöfliches Clara-Fey-Gymnasium, Schleiden (Grade: 1,2)

## Curriculum Vitae

### Scholarships

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- 09/10 – 08/13 International Max Planck Research School  
03/08 – 08/10 Studienstiftung des Deutschen Volkes

### Stays and conferences

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- 08/19 Buildings and Affine Grassmannians, CIRM, Luminy  
01/19 Oberwolfach Workshop Arithmetic of Shimura varieties, MFO  
03/18 Invitation by Tom Haines, University of Maryland, MD, USA  
04/17 Oberwolfach Arbeitsgemeinschaft Higher Gross Zagier formulas, MFO  
02/14 Oberwolfach Workshop on Langlands correspondence and constructive Galois theory, MFO  
07/13 Teaching assistant of Prof. Dr. Peter Scholze, MSRI, Berkeley, CA, USA  
02/12 – 03/12 Research stay, Fields Institute, Toronto, CAN  
09/10 – 12/10 Fellow visitor of Prof. Dr. Michael Rapoport, Harvard University, Cambridge, MA, USA  
01/10 – 03/10 Trimester on p-adic methods in algebraic geometry, Institut Henri Poincaré, Paris, FRA

### Selected talks

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- 09/17 Lyon, title: The test function conjecture for parahoric local models  
01/17 Regensburg, title: Spaces with  $\mathbb{G}_m$ -action and applications  
01/17 Münster, title: Spaces with  $\mathbb{G}_m$ -action and applications  
05/14 Bayreuth, title: The geometric Satake isomorphism  
02/14 Oberwolfach, title: Ramified Geometric Satake Isomorphisms  
11/12 Paderborn, title: On the Geometric Satake Isomorphism  
11/12 Essen, title: On the Geometric Satake Isomorphism  
11/12 Wuppertal, title: Schubert varieties in twisted affine flag varieties  
03/12 Toronto, title: On the Geometric Satake Isomorphism

### Publications/Preprints

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- 2018 The Test Function Conjecture for Parahoric Local Models joint with Tom Haines, preprint submitted  
2016 Spaces with  $\mathbb{G}_m$ -action, hyperbolic localization and nearby cycles, To appear, Journal of Algebraic Geometry  
2016 On the Iwahori-Weyl Group, Bulletin de la SMF 144, fascicule 1 (2016), 117-124  
2016 Affine Grassmannians and Geometric Satake Equivalences, Int. Math. Res. Not. (2016), Issue 12, 3717-3767.  
2015 Appendix to The Geometrical Satake Correspondence for Ramified Groups joint with X. Zhu, Annales scientifiques de l'ENS série 4 48, fascicule 2 (2015)  
2014 A new approach to the Geometric Satake Equivalence, Documenta Mathematica 19 (2014) 209-246  
2013 Schubert Varieties in Twisted Affine Flag Varieties and Local Models, Journal of Algebra 375 (2013), 121-147

## Curriculum Vitae

### Teaching

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- winter 2017/18 Seminar, University of Duisburg-Essen: *The Fargues-Fontaine curve*  
Seminar, University of Duisburg-Essen: *Seminar on Stacks* joint with Jochen Heinloth  
Seminar, University of Duisburg-Essen: *Forschungsseminar Arithmetische Geometrie*
- summer 2017 Lecture course, University of Duisburg-Essen: *Figuren und Abbildungen im Geometrieunterricht*  
Seminar, University of Duisburg-Essen: *Forschungsseminar Arithmetische Geometrie*
- winter 2016/17 Lecture course, University of Duisburg-Essen: *Didaktik der linearen Algebra und analytischen Geometrie*  
Seminar, University of Duisburg-Essen: *Forschungsseminar Arithmetische Geometrie*, joint with Michael Wong
- summer 2016 Lecture course, University of Duisburg-Essen: *Figuren und Abbildungen im Geometrieunterricht*
- winter 2013/14 Exercises for Prof. Rapoport, Bonn University: *Algebra II*
- summer 2013 Exercises for Prof. Rapoport, Bonn University: *Algebra I*
- summer school 07/2013 Teaching assistant of Prof. Scholze, MSRI Berkeley: *New Geometric Techniques in Number Theory*
- winter 2012/13 Exercises for Prof. Rapoport, Bonn University: *Introduction to Algebra*
- summer 2012 Tutor, Bonn University: *Complex hyperbolic spaces*
- summer 2011 Seminar: *The unramified Drinfeld-Langlands correspondence*
- summer 2007 – winter 2010/11 Tutor, Bonn University: *Topology, Algebra, Complex Geometry, Linear Algebra and Analysis*