

Alexander Youcis

Curriculum Vitae

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Education

- 2013 **Bachelor's degree**, *University of Maryland, College Park*.
2013–2019 **PhD**, *University of California, Berkeley (advised by Sug Woo Shin)*.

Positions held

- 2019–2021 **Postdoc**, *Institute of Mathematics of the Polish Academy of Sciences*.
2021–Present **JSPS Fellow**, *University of Tokyo*.

Teaching Experience

- 2013–Present Graduate Student Instructor, University of California, Berkeley
Summer 2017 Instructor for number theory (Math 115), University of California, Berkeley
Summer 2018 Instructor for number theory (Math 115), University of California, Berkeley

Research interests

Arithmetic geometry, representation theory, and local/global methods used in the Langlands program. In particular: Shimura varieties, moduli spaces of local Shutkas, p -adic Hodge theory, p -adic geometry, p -adic representation theory and endoscopic methods.

Published papers

1. E. Beazley, M. Nichols, M. Park, X. Shi, and A. Youcis, *Bijjective projections on parabolic quotients of affine Weyl groups*, *Journal of Algebraic Combinatorics* (2014), DOI: 10.1007/s10801-014-0559-9
2. Achinger, Piotr; Lara, Marcin; Youcis, Alex. Specialization for the pro-étale fundamental group. *Compos. Math.* 158 (2022), no. 8, 1713–1745. MR4490930

Preprints

- P. Achinger, M. Lara, and A. Youcis, *Geometric arcs and fundamental groups (Submitted)*, <https://arxiv.org/abs/2105.05184>
P. Achinger, M. Lara and A. Youcis. *Variants of the de Jong fundamental group (Submitted)*. <https://arxiv.org/abs/2203.11750>.
A. Bertoloni Meli and A. Youcis, *An approach to the characterization of the local Langlands correspondence (Submitted)*, <https://arxiv.org/abs/2003.11484>

A. Bertoloni Meli, N. Imai, and A. Youcis, *The Jacobson–Morozov morphism for Langlands parameters in the relative setting (Submitted)*, <https://arxiv.org/abs/2203.01768>

A. Bertoloni Meli and A. Youcis, *The Scholze–Shin conjecture for Unramified Unitary Groups I: The No Endoscopy Case*, <https://alex-youcis.github.io/ScholzeShinIMPAN.pdf>

A. Youcis, *The Langlands–Kottwitz–Scholze method for Shimura varieties of abelian type*(In preparation)

Professional activities

2014–2017 Founded and ran the Berkeley Directed Reading Program (a program to pair undergraduate and graduate students for independent study)

2014–2017 Mentor in the Berkeley Directed Reading Program

Selected talks

2017 Étale morphisms for perfectoid spaces, Arizona Winter School

2017 Étale morphisms for perfectoid spaces, University of Tokyo

2018 The Langlands–Kottwitz–Scholze method for Shimura varieties of abelian type, University of Tokyo

2018 The Langlands–Kottwitz–Scholze method for Shimura varieties of abelian type, Stanford University

2018 The Langlands–Kottwitz–Scholze method for Shimura varieties of abelian type, University of Minnesota

2018 The Langlands–Kottwitz–Scholze method for Shimura varieties of abelian type, University of Maryland

2019 The Scholze–Shin conjecture for unramified unitary groups, University of Cambridge

2019 The Scholze–Shin conjecture for unramified unitary groups, University of Warsaw

2020 An approach to characterizing the local Langlands correspondence over p -adic fields, CARTOON conference

2021 Geometric coverings of rigid spaces, RAMpAGe seminar

2021 Geometric coverings of rigid spaces, University of Alberta arithmetic geometry seminar

2021 Geometric coverings of rigid spaces, University of Tokyo number theory seminar

2022 A prismatic realization functor for Shimura varieties of abelian type, POSTECH

2022 A prismatic realization functor for Shimura varieties of abelian type, University of Michigan

Awards and fellowships

2017 Berkeley RTG Grant Fellowship

2018 Berkeley RTG Grant Fellowship

2021 Short term JSPS fellowship

2022 Long term JSPS fellowship