

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 global methods used in the Langlands program. In particular: Shimura varieties, p -adic Hodge theory, p -adic geometry, p -adic representation theory and endoscopic methods.

Papers and preprints

- P. Achinger, M. Lara, and A. Youcis, *Specialization for the pro-étale fundamental group*, <https://arxiv.org/pdf/2107.06761.pdf>
P. Achinger, M. Lara, and A. Youcis, *Geometric arcs and fundamental groups*, <https://arxiv.org/pdf/2105.05184.pdf>
A. Bertoloni Meli and A. Youcis, *An approach to the characterization of the local Langlands correspondence*, <https://arxiv.org/pdf/2003.11484.pdf>
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)
E. Beazley, M. Nichols, M. Park, X. Shi, and A. Youcis, *Bijective projections on parabolic quotients of affine Weyl groups*, *Journal of Algebraic Combinatorics* (2014), DOI: 10.1007/s10801-014-0559-9

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

Conference and seminar 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

Awards and fellowships

- 2009 Harry Muchnic Award, Drexel Math Department
- 2012 Strauss Scholarship, University of Maryland, College Park Math Department
- 2013 Outstanding Senior Award, University of Maryland, College Park Math Department
- 2015 Berkeley Summer Fellowship
- 2016 Berkeley Summer Fellowship
- 2016 Berkeley Fall Fellowship
- 2017 Berkeley RTG Grant Fellowship
- 2018 Berkeley RTG Grant Fellowship
- 2021 Short term JSPS fellowship