Alexander Youcis

Curriculum Vitae

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https://sites.google.com/view/alex-youcis

Positions held

2021-Present **JSPS Fellow**, *University of Tokyo*.

2019-2021 **Postdoc**, *Institute of Mathematics of the Polish Academy of Sciences*.

Education

2013–2019 **PhD**, *University of California, Berkeley (advised by Sug Woo Shin)*.

2013 **Bachelor's degree**, *University of Maryland, College Park*.

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

A. Bertoloni Meli, N. Imai and A. Youcis. *The Jacobson–Morozov Morphism for Langlands Parameters in the Relative Setting*, International Mathematics Research Notices (2023), DOI: https://doi.org/10.1093/imrn/rnad217

A. Bertoloni Meli and A. Youcis. *An approach to the characterization of the local Langlands correspondence*. Represent. Theory 27 (2023), 415–430.

P. Achinger, M. Lara, and A. Youcis. *Geometric arcs and fundamental groups of rigid spaces*. J. Reine Angew. Math. 799 (2023), 57–107. MR4595307

P. Achinger, M. Lara, and A. Youcis. *Specialization for the pro-étale fundamental group*. Compos. Math. 158 (2022), no. 8, 1713–1745. MR4490930

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

Preprints

K. Česnavičius, and A. Youcis. *The analytic topology is enough for the B^+_{dR}-Grassmannian* (Submitted). https://arxiv.org/abs/2303.11710

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, *The Scholze-Shin conjecture for Unramified Unitary Groups I: The No Endoscopy Case*, `https://alex-youcis.github.io/ScholzeShinIMPAN.pdf`

Youcis, Alexander Frank The Langlands-Kottwitz Method and Deformation Spaces of p-Divisible Groups of Abelian Type. Thesis (Ph.D.)–University of California, Berkeley. 2019. 192 pp. ISBN: 978-1085-79410-7, ProQuest LLC

Awards and fellowships

2022 Long term JSPS fellowship

2021 Short term JSPS fellowship

2018 Berkeley RTG Grant Fellowship

2017 Berkeley RTG Grant Fellowship

Professional activities

2014-2017 Co-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

2023 Conference on Arithmetic and Cohomology of Algerbraic Varieties, Hanoi | *A prismatic characterization of integral canonical models of Shimura varieties of abelian type*

2023 University of Maryland, Lie Groups and Representation Theory Seminar | *A prismatic realization functor for Shimura varieties of abelian type*

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

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

2021 University of Tokyo number theory seminar | *Geometric coverings of rigid spaces*

2021 University of Alberta arithmetic geometry seminar | *Geometric coverings of rigid spaces*

2021 RAMpAGe seminar | *Geometric coverings of rigid spaces*

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

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

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

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

2018 University of Minnesota | *The Langlands–Kottwitz-Scholze method for Shimura varieties of abelian type*

2018 Stanford University | *The Langlands–Kottwitz-Scholze method for Shimura varieties of abelian type*

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

Teaching Experience

Summer 2018 Instructor of record for number theory (Math 115), University of California, Berkeley

Summer 2017 Instructor of record for number theory (Math 115), University of California, Berkeley

2013–2019 Graduate Student Instructor, University of California, Berkeley