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

N. Imai, H. Kato, and A. Youcis. *The Prismatic Realization Functor for Shimura Varieties of Abelian Type.* https://arxiv.org/abs/2310.08472

K. Česnavičius, and A. Youcis. *The analytic topology suffices 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 administered 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
	Refereeing and quick opinions (Forum of Mathematics Pi, International Mathematics Research Notices, Algebra and Number Theory)

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