

Kalyani Kansal

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Education	PhD in Mathematics Johns Hopkins University Advisor: David Savitt	2016-2023
	Bachelor of Medicine and Bachelor of Surgery Government Medical College, Chandigarh, India	2007-2013
Past Employment	Chapman fellow Imperial College London	2024-present
	Member, School of Mathematics Institute for Advanced Study	2023-2024
	Post-doctoral fellow in Psychiatry Johns Hopkins University School of Medicine	2013-2016
Research Interests	Number theory, Arithmetic geometry	
Mathematical Papers	K.Kansal, B. Savoie. “Non-generic components of the Emerton-Gee stack for GL_2 ”, <i>preprint</i> . R. Bellovin, N. Borade, A. Hilado, K. Kansal, H. Lee, B. Levin, D. Savitt, H. Wiersema. “Irregular loci in the Emerton-Gee stack for GL_2 ”, <i>Journal für die reine und angewandte Mathematik</i> , 2024. K. Kansal. “Codimension one intersections between components of the Emerton-Gee stack for GL_2 ”, <i>preprint</i> . A. Guzman, K. Kansal, I. Kountouridis, B. Savoie and X. Wang. “Smoothness of components of the Emerton-Gee stack for GL_2 ”, <i>preprint</i> , to appear in <i>Transactions of AMS</i> .	
Invited Talks	University of Oxford Number Theory Seminar (Upcoming)	2024
	London Number Theory Seminar (Upcoming)	2024
	Program for Women+ And Mathematics Institute for Advanced Study, Princeton	2024
	New York Number Theory Seminar	2024
	University of Chicago Number Theory Seminar	2023

	Quebec-Vermont Number Theory Seminar	2023
	AMS Fall Eastern Sectional meeting	2023
	IAS/Princeton Arithmetic Geometry Seminar	2023
	Trimester Seminar Hausdorff trimester on “The Arithmetic of the Langlands Program”	2023
	Philadelphia area Number Theory Seminar	2023
	Essen Number Theory Seminar	2023
	Joint Mathematical Meetings AMS Special Session on Women in Automorphic Forms	2023
	Johns Hopkins Junior Number Theory Days	2022
	UCSD Number Theory Seminar	2022
	Rice University AGNT Seminar	2022
	Ohio State Number Theory Seminar	2022
	Community building in Langlands Program	2022
Conferences and Special Programs Attended	Clay research conference and workshop on “Geometry and Langlands” Oxford, UK	2024
	Representations of p-adic groups and Langlands correspondence (In honor of Colin Bushnell) London, UK	2024
	Oberwolfach meeting on Arithmetic Geometry Oberwolfach, Germany	2024
	Visions in Arithmetic and Beyond (Peter Sarnak’s birthday conference) Princeton, USA	2024
	Meeting on “Perfection in Algebra, Geometry and Topology” Simons collaboration annual meeting New York, USA	2024
	Special year on p-adic Arithmetic Geometry Institute for Advanced Study Princeton, USA	2023-2024
	Hausdorff trimester on “The Arithmetic of the Langlands Program” Bonn, Germany	2023
	Spring school on Non-Archimedean geometry and Eigenvarieties	2024

Heidelberg, Germany

Community building in Langlands Program 2022
Bonn, Germany

Collaborative Research Workshop 2022
Eugene, USA

Arizona Winter School, Automorphic forms beyond GL_n 2022
Tucson, USA

MSRI summer school, Toric Varieties 2019
Taipei, Taiwan

Serre conjectures and p -adic Langlands 2019
Padova, Italy

MSRI summer school, Derived Categories 2018
Berkeley, USA

**Selected
non-Math
Papers**

K. Kansal, Z. Yang, A. M. Fishman, H. I. Sair, S. H. Ying, B. M. Jedynak, J. L. Prince, C. U. Onyike. “Structural cerebellar correlates of cognitive and motor dysfunctions in cerebellar degeneration”. *Brain*, 2017.

K. Kansal, M. Mareddy, K. L. Sloane, A. A. Minc, P. V. Rabins, J. B. McGready, C. U. Onyike. “Survival in frontotemporal dementia phenotypes: a meta-analysis”. *Dementia and geriatric cognitive disorders*, 2016.

K. Kansal, D. J. Irwin. “The Use of Cerebrospinal Fluid and Neuropathologic Studies in Neuropsychiatry Practice and Research”. *Psychiatric Clinics*, 2015.

**Teaching
Experience**

Instructor: Linear Algebra (Summer 2017, 2018), Intro to Calculus (Fall 2021)

TA: Calculus I, II and III, Linear Algebra, Methods of Complex Analysis, Abstract Algebra (various, 2016-2022)