Siddarth Sankaran

Curriculum Vitae

Department of Mathematics
University of Manitoba
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Research Interests

Geometry; number theory; modular forms; Shimura varieties

Employment

2016–	**University of Manitoba**, *Assistant professor.*
2014-2016	**McGill University**, *Postdoctoral fellow.*
2012-2014	**Universität Bonn**, *Postdoctoral fellow.*

Publications

Research articles:

- Arithmetic special cycles and Jacobi forms

  preprint, 30pp.

- Green forms and the arithmetic Siegel-Weil formula (with L. Garcia)

  Invent. Math., **(215)** (2019), pp. 863-975.

- On two arithmetic theta lifts (with S. Ehlen)

  Compositio Math., **154** (2018), pp. 2090-2149.

- Twisted Hilbert modular surfaces, arithmetic intersections, and the Jacquet-Langlands correspondence (with G. Freixas i Montplet),

  Adv. Math., **329** (2018), pp. 1–84.

- Improper intersections of Kudla-Rapoport divisors and Eisenstein series

  J. Math. Inst. Jussieu, **16** (2017), pp. 899-945.

- Unitary cycles on Shimura curves and the Shimura lift II

  Compositio Math., **150** (2014), pp. 1963-2002.

- Unitary cycles on Shimura curves and the Shimura lift I

  Documenta Math. **18** (2013), pp. 1403–1464.

Other:

- "Arithmetic special cycles and Jacobi forms", Oberwolfach Report (extended abstract)

Education

2012 **Ph.D.**, *University of Toronto*, Mathematics.
2007 **M.Sc.**, *University of Toronto*, Mathematics.
2006 **B.Sc.**, *University of Toronto*, Mathematics and Physics.

Selected awards and grants

2017-2022 NSERC Discovery grant
2016-2019 University of Manitoba startup grant
2014-2016 NSERC Postdoctoral fellowship (held at McGill University)

Teaching Experience

U. Manitoba	Math 4450/7450 (number theory)	*Winter 2020*
	Math 2040 (curves and surfaces)	*Winter 2020*
	Math 3320 (abstract algebra)	*Fall 2018 & 2019*
	Math 1510 (applied calculus): course coordinator	*Fall 2017 & 2018*
	Math 1230 (honours calculus)	*Fall 2017*
	Math 7340 (graduate algebraic geometry)	*Winter 2017*
	Math 1500 (introductory calculus)	*Winter 2017*
McGill	Math 236 (linear algebra)	*Winter 2015 & 2016*
U. Toronto	Math 135 (introductory calculus)	*Summer 2010*

Invited talks

Workshop on modular forms, Oberwolfach	*December 2019*
AMS Sectional Meeting, Madison	*September 2019*
Canadian Number Theory Association XV, Université Laval	*July 2018*
CRM CICMA Conference, Montréal	*July 2018*
Bellairs Number Theory Conference, Bellairs, Barbados	*April 2018*
Montréal-Toronto Number Theory Conference, Montréal	*December 2016*
Oberseminar Zahlentheorie, Universität zu Köln	*November 2016*
Number Theory Seminar, University of Wisconsin, Madison	*November 2016*
Number Theory Seminar, University of Toronto	*March 2016*
West Coast Number Theory, Pacific Grove, California	*December 2015*
CMS Sectional Meeting, Montréal	*December 2015*
Séminaire d'Algebre et de Géométrie, Université Laval	*November 2015*
Workshop on Kudla's Programme, CRM, Montréal	*April 2015*
Arithmetic Geometry Seminar, McMaster University, Hamilton	*Nov. 2014*
Quebec-Vermont Number Theory Seminar, CRM, Montréal	*October 2014*
AMS Sectional Meeting, Halifax	*October 2014*
Number Theory Seminar, Johns Hopkins University, Baltimore	*October 2014*

Conference on Arithmetic of Eisenstein Series, TU Darmstadt	*September 2014*
Arithmetic Geometry Seminar, Humboldt Universität, Berlin	*June 2014*
Oberseminar Zahlentheorie, Universität zu Köln	*May 2014*
Oberseminar Arithmetische Geometrie, Essen	*December 2013*
ARGOS Seminar, Bonn	*December 2013*
ARGOS Seminar, Bonn	*October 2012*
Montréal-Toronto Number Theory Conference, Montréal	*April 2012*
Number Theory and Representation Theory Seminar, Toronto	*February 2012*
Montréal-Toronto Number Theory Conference, Toronto	*Sept 2010*

Supervision

Postdocs	Alok Shukla	*2018-present*
Graduate students	Kristaps Balodis (M.Sc.)	*2019-present*
	Gurjyot Kaur (M.Sc., co-supervisor)	*2018-present*
Undergrad research	Kristaps Balodis	*Summer 2019*

Professional activities

○ Reviewer for Compositio Math., Algebra and Number Theory, Amer. J. Math., Adv. Math., Forum Math., Canadian Math Bull., Inventiones Math.

○ Co-organized a junior research trimester at the Hausdorff Institute of Mathematics in Bonn from January-April 2014 included a 5-day workshop (Feb. 2014).

○ Successfuly applied for a SquaREs program at the American Institute of Mathematics, providing funding for two week-long visits to AIM for collaborative research; first meeting in May 2019.