

Avinash (Avi) KULKARNI

PERSONAL DATA

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EDUCATION

Defended Nov 2018 Doctor of Philosophy in MATHEMATICS, **Simon Fraser University**
Thesis: *Aspects of the arithmetic of uniquely trigonal genus four curves: arithmetic invariant theory and class groups of cubic number fields*
Senior Supervisor: Dr. N. Bruin

AUG 2014 Master of Science in MATHEMATICS, **Simon Fraser University**
Thesis: *On Jacobians of dimension $2g$ that decompose into Jacobians of dimension g*
Senior Supervisor: Dr. N. Bruin

JUNE 2012 Bachelor of MATHEMATICS, **University of Waterloo**
Major in pure mathematics, Minor in computer science
Graduated “with distinction” on dean’s honor list

PUBLICATIONS

7. T. Celik, A. Kulkarni, Y. Ren, M. Sayyary, Tritangents and their space sextics. (Submitted, Arxiv preprint *arXiv:1805.11702*, 2018)
6. J. Hauenstein, A. Kulkarni, E. Sertöz, S. Sherman, Certifying reality of projections. (Accepted to ICMS 2018 proceedings, Arxiv preprint *arXiv:1804.02707*, 2018)
5. A. Kulkarni, An explicit family of cubic number fields with large 2-rank of the class group. *Acta Arith.* 182, (2018), 117-132.
4. A. Kulkarni, Y. Ren, M. Sayyary, B. Sturmfels, Real space sextics and their tritangents. (Accepted to ISSAC 2018 proceedings, Arxiv preprint *arXiv:1712.06274*, 2017)
3. A. Kulkarni, G. Maxedon, K. Yeats, Some results on an algebro-geometric condition on graphs. *J. Aust. Math. Soc.*, 104(2):218–254, 2018. doi:10.1017/S1446788717000106
2. A. Kulkarni, An arithmetic invariant theory of curves from E_8 . (Submitted, Arxiv preprint *arXiv:1711.08843*, 2017)
1. A. Kulkarni, N. M. Mavraki, K. D. Nguyen, Algebraic approximations to linear combinations of powers: an extension of results by Mahler and Corvaja-Zannier. (Accepted to *Trans. Amer. Math. Soc.* Advance online version doi:10.1090/tran/7316)

ACADEMIC EMPLOYMENT

<i>Present</i>	Post-doctoral researcher at MAX PLANCK INSTITUTE FOR MATHEMATICS IN THE SCIENCES
NOV 2018	Leipzig, DE
DEC 2017	Graduate teaching assistant at SIMON FRASER UNIVERSITY
SEPT 2012	Burnaby, BC, CA
AUG 2011	Undergraduate research assistant at the FIELDS INSTITUTE
JULY 2011	Toronto, ON, CA
APR 2012	Undergraduate teaching assistant at the UNIVERSITY OF WATERLOO
JAN 2012	Waterloo, ON, CA
DEC 2010	
SEPT 2009	

ADMINISTRATIVE SERVICE

SEPT 2017 - DEC 2017	Organizer for the SFU Graduate Seminar
JUNE 2017	SFU liason for the PIMS Young Researcher's conference
JAN 2016 - DEC 2017	Mathematics Graduate Caucus Secretary
SEPT 2014 - APR 2016	TSSU Mathematics Department Steward
JAN 2014 - DEC 2015	TSSU Finance Committee member
SEPT - DEC 2011	University of Waterloo Mathematics Society Pure mathematics council representative

AWARDS

SEPT 2018	Department of Mathematics Graduate Scholarship <i>Awarded by the Dean of Graduate Studies for demonstrated academic excellence at the graduate level</i>
SEPT 2014	Provost Prize of Distinction
SEPT 2014	CD Nelson Entrance Scholarship
SEPT 2014	NSERC Post Graduate Scholarship - Doctoral
SEPT 2014	Simon Fraser University Provost's Prize of Distinction
MAY 2014	Simon Fraser University Graduate Fellowship
MAY 2013	Simon Fraser University Graduate Fellowship
SEPT 2008	University of Waterloo President's Scholarship

TALKS

NOV 2018	Kulkarni, A. Tritangents and Space Sextics. Seminar on nonlinear algebra. (<i>Max Planck Institute for mathematics in the sciences, Leipzig, DE. Invited</i>)
MAR 2018	Kulkarni, A. The arithmetic of uniquely trigonal genus 4 curves. Seminar on nonlinear algebra. (<i>Max Planck Institute for mathematics in the sciences, Leipzig, DE. Invited</i>)

- FEB 2018 Kulkarni, A. The arithmetic of uniquely trigonal genus 4 curves. Junior number theory seminar. (*Oxford University, Oxford, UK. Invited*)
- JAN 2018 Kulkarni, A. The arithmetic of uniquely trigonal genus 4 curves. (*Tutte Institute, Ottawa, ON, CA. Invited*)
- DEC 2017 Kulkarni, A. An arithmetic invariant theory from E_8 . CMS winter meeting, special session on explicit finiteness of integral points on hyperbolic curves. (*Waterloo, ON, CA. Invited*)
- JULY 2017 Kulkarni, A. Reading graphs into SAGE from an IPE diagram. SFU discrete math seminar.
- NOV 2016 Kulkarni, A. Picard groups of surfaces and 2-torsion in cubic number fields. SFU number theory seminar.
- DEC 2015 Kulkarni, A. Identities of Kloosterman sums. West coast number theory. (*Pacific Grove, CA, USA*)
- OCT 2014 Kulkarni, A. On Jacobians of dimension $2g$ that decompose into Jacobians of dimension g . UBC number theory seminar.
- AUG 2011 Blazsik, Z. Kulkarni, A. Liu, H. Perkins, D. Tossenberger, A. Wu, Y. The Constraint Satisfaction Problem. Fields-MITACS undergraduate summer research program Mini-Conference.

PROGRAMMING LANGUAGES

Intermediate proficiency: MAGMA, SAGE, PYTHON
 Basic Knowledge: MAPLE, BERTINI, C, JAVA, UNIX