

Padmavathi Srinivasan

Employment

2016–current **Hale Visiting Assistant Professor**, Georgia Institute of Technology, Atlanta, GA.

Education

- 2011–2016 **PhD in Mathematics**, Massachusetts Institute of Technology, Cambridge, MA.
Advisor: Bjorn Poonen
- 2009–2011 **MSc in Mathematics**, Chennai Mathematical Institute, Chennai, India.
- 2006–2009 **BSc (Honours) in Physics**, Chennai Mathematical Institute, Chennai, India.

Publications

- 1 Conductors and minimal discriminants of hyperelliptic curves: a comparison in the tame case, *In preparation*.
- 2 An arithmetic count of the lines meeting four lines in \mathbb{P}^3 (with Kirsten Wickelgren), *Submitted*, arxiv:1810.03503.
- 3 Explicit computation of Tamagawa numbers and sizes of component groups of Neron models of Jacobians using matrix-tree theorems, Thesis, Chapter 4.
- 4 Conductors and discriminants of hyperelliptic curves with rational Weierstrass points, *Submitted*, arxiv:1508.05172.
- 5 A virtually ample field that is not ample, *Accepted by Israel Journal of Mathematics*, arxiv.org:1810.05184.
- 6 Zeta functions of a class of Artin-Schreier curves with many automorphisms (with Irene Bouw, Wei Ho, Beth Malmskog, Renate Scheidler and Christelle Vincent), *Association for Women in Mathematics Series*, 3. 2016. 87-124. arxiv:1410.7031.

Honours

CMI Medal of Excellence, MSc in Mathematics
CMI Medal of Excellence, BSc (Honours) in Physics

Grants

June 2019 AMS Mathematical Research Communities, **Explicit methods in arithmetic geometry in characteristic p** (Joint with Renee Bell, Julia Hartmann, Valentijn Karemaker and Isabel Vogt)

Upcoming talks

February 2018 Stanford university, Algebraic geometry seminar

- March 2019 AMS Spring Central and Western Joint Sectional Meeting, Honolulu, Hawaii, Special Session on Algebraic points
- April 2019 AMS Spring Eastern Joint Sectional Meeting, Hartford, Connecticut, Special Session on Mathematical cryptology

Research talks and presentations

- January 2019 University of Georgia, Number theory seminar
- January 2019 Joint Mathematics Meetings, AMS Special Session on Number Theory, Arithmetic Geometry, and Computation
- December 2018 PANTS XXXI (Palmetto Number Theory Series), University of South Carolina. Invited postdoc speaker
- December 2018 Brown university, Algebra seminar
- November 2018 University of Washington (Seattle), Number theory seminar
- November 2018 University of Pennsylvania, Galois seminar
- October 2018 Northwestern university, Number theory seminar
- March 2018 AMS Central Sectional Meeting, Columbus, Ohio, Special Session on Algebraic and Combinatorial Aspects of Tropical Geometry
- February 2018 Georgia Algebraic Geometry Symposium, Georgia Institute of Technology
- September 2017 AMS Central Sectional Meeting, Denton, Texas, Special Session on Numbers, Functions, Transcendence, and Geometry
- January 2017 Joint Mathematics Meetings, AMS Special Session on Minimal integral models of algebraic curves
- December 2016 Georgia Institute of Technology, Algebra seminar
- November 2016 Junior number theory days, Rutgers, Newark
- November 2016 Emory university, Algebra seminar
- October 2016 University of South Carolina, Algebraic geometry, arithmetic geometry and commutative algebra seminar
- September 2016 TAAAG: Topological approaches to algebra and arithmetic geometry
- April 2016 3rd Annual Graduate Student Math Conference in Algebra/Number Theory, Brown University
- February 2016 Ohio State University, Number theory seminar
- February 2016 University of Wisconsin, Madison, Number theory seminar
- January 2016 Joint Mathematics Meetings, AMS Special Session on Higher Genus Curves and Fibrations of Higher Genus Curves in Mathematical Physics and Arithmetic Geometry
- October 2015 Rice University, Algebraic geometry and number theory seminar
- October 2015 University of Georgia, Number theory and arithmetic geometry seminar

- October 2015 Young women in Algebraic Geometry, Universität Bonn, Bonn
- September 2015 University of Maine, Mathematics Colloquium and the Number theory seminar
- July 2015 Contributed talks, Week 3, 2015 Algebraic Geometry Summer Institute, Utah
- June 2015 Mathematics Colloquium, The Institute of Mathematical Sciences, Chennai

Expository lectures

- October 2017 *An introduction to dynamical analogues of Mazur's theorem and uniform boundedness conjecture for abelian varieties*, Random Algebra and Number Theory, Emory graduate student seminar
- August 2016 *Formal moduli for one-parameter formal Lie groups*, West Coast Algebraic Topology Summer School (WCATSS)
- May 2016 *A p -adic proof of the transcendence of π* , Pure Mathematics Graduate Student Seminar (PuMaGraSS)
- November 2015 *Compactifications of the moduli space of abelian varieties*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- May 2015 *The Chabauty-Coleman method*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- February 2015 *Good reduction of abelian varieties*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- December 2014 *Mixed Tate motives over \mathbb{Z} and multi-zeta values*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- September 2014 *Tannakian Categories*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- March 2014 *The weight monodromy conjecture*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- April 2013 *Fermat's last theorem for regular primes*, Pure Mathematics Graduate Student Seminar (PuMaGraSS)
- February 2013 *Hodge Theory*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- November 2012 *Hilbert's irreducibility theorem*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- October 2012 *Rational points on curves*, 18.725 Guest lecture
- April 2012 *The fundamental group of an algebraic curve and the outer Galois action*, Seminar on Topics in Arithmetic, Geometry, Etc.(STAGE)
- March 2012 *The inverse Galois problem for $\mathbb{C}(t)$* , Pure Mathematics Graduate Student Seminar (PuMaGraSS)

Teaching

- Fall 2018 **Math 1553: Introduction to linear algebra.**
Instructor
- February 17-18, 2018 **Graduate Workshop in Algebraic Geometry for Women and Mathematicians of Minority Genders, Harvard and MIT.**
Teaching Assistant
- Spring 2018 **Math 4150: Elementary number theory and applications.**
Instructor

- Fall 2017 **Math 1553: Introduction to linear algebra.**
Instructor
- Spring 2017 **Math 6122: Introduction to Algebraic number theory.**
Instructor
- Fall 2016 **Math 1553: Introduction to linear algebra.**
Instructor
- Spring 2016 **18.726: Algebraic Geometry II.**
Grader
- Spring 2015 **18.786: Number Theory II.**
Grader
- January 2015 **Directed Reading Program.**
Mentor. Text: A course in arithmetic, by Jean-Pierre Serre
- Fall 2014 **18.821: Project Laboratory in Mathematics.**
Graduate student instructor
- Spring 2014 **18.781: Introduction to the theory of numbers.**
Teaching assistant
- Spring 2014 **18.726: Algebraic Geometry II.**
Grader
- Spring 2013 **18.726: Algebraic Geometry II.**
Grader
- January 2013 **Directed Reading Program.**
Mentor. Text: The arithmetic of elliptic curves, by Joseph Silverman
- Fall 2012 **18.725: Algebraic Geometry I.**
Grader
- January 2012 **Directed Reading Program.**
Mentor. Text: Riemann surfaces, by Otto Forster

Service

- March 13-15, 2020 Special session on Curves, Jacobians and Abelian Varieties at the AMS Spring South-eastern Meeting, University of Virginia, *Co-organizer*
- March 30-31, 2019 GATTACA, Georgia Tech Tropical, Arithmetic and Combinatorial Algebraic geometry, Conference, Georgia Institute of Technology, *Co-organizer*
- February 2019 Arizona Winter School, University of Arizona, Study group on \mathbb{A}^1 -enumerative geometry, *Leader*
- Fall 2018 Georgia Tech Algebra seminar, *Co-organizer*
- 2018-Spring 2019 Georgia Tech Algebra qualifying exam, *Cowriter*
- Fall 2018 Georgia Tech Algebra qualifying exam, *Cowriter*
- February 2018 Panel discussion at the Graduate Workshop in Algebraic Geometry for Women and Mathematicians of Minority Genders, Harvard and MIT, *Panelist*
- Fall 2017 Georgia Tech Algebra qualifying exam, *Cowriter*
- May 2016 Panel discussion for graduate students on Life after quals: learning to do research, *Organizer & moderator*
- Spring 2015 STAGE: Seminar on Topics in Arithmetic, Geometry, Etc., *Co-organizer*
- 2014–2015 MIT Friends of the Arts, *Co-organizer*

Spring 2013, Mathematics department Transfer Credit Examiner
Fall 2013

2012–2013 PuMaGraSS: Pure Mathematics Graduate Student Seminar, *Co-organizer*