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# Padmavathi Srinivasan

## Education

- 2011–present **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 Explicit computation of Tamagawa numbers and sizes of component groups of Neron models of Jacobians, *In preparation*.
- 2 A virtually ample field that is not ample, *virtuallyample.pdf*.
- 3 Conductors and discriminants of hyperelliptic curves, *Submitted*, arxiv:1508.05172.
- 4 Zeta functions of a class of Artin-Schreier curves with many automorphisms (with Irene Bouw, Wei Ho, Beth Malmskog, Renate Scheidler and Christelle Vincent), *Accepted to WIN3 proceedings volume* arxiv:1410.7031.

## Honours

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

## Research talks and presentations

- April 2016 *Conductors and minimal discriminants of hyperelliptic curves*, 3rd Annual Graduate Student Math Conference in Algebra/Number Theory, Brown University
- February 2016 *Conductors and minimal discriminants of hyperelliptic curves*, Ohio State University, Number theory seminar
- February 2016 *Conductors and minimal discriminants of hyperelliptic curves*, University of Wisconsin, Madison, Number theory seminar
- January 2016 *Conductors and minimal discriminants of hyperelliptic curves*, Joint Mathematics Meetings, AMS Special Session on Higher Genus Curves and Fibrations of Higher Genus Curves in Mathematical Physics and Arithmetic Geometry
- October 2015 *Conductors and minimal discriminants of hyperelliptic curves*, Rice University, Algebraic geometry and number theory seminar
- October 2015 *Conductors and minimal discriminants of hyperelliptic curves*, University of Georgia, Number theory and arithmetic geometry seminar
- October 2015 *Conductors and minimal discriminants of hyperelliptic curves*, Young women in Algebraic Geometry, Universität Bonn, Bonn
- September 2015 *Conductors and minimal discriminants of hyperelliptic curves*, University of Maine, Mathematics Colloquium and the Number theory seminar

- August 2015 *Conductors and minimal discriminants of hyperelliptic curves*, Poster at Silvermania, Brown University, Providence
- July 2015 *Conductors and minimal discriminants of hyperelliptic curves*, Contributed talks, Week 3, 2015 Algebraic Geometry Summer Institute, Utah
- July 2015 *Conductors and minimal discriminants of hyperelliptic curves*, Poster at the graduate student bootcamp for the 2015 Algebraic Geometry Summer Institute, Utah
- June 2015 *Conductors and minimal discriminants of hyperelliptic curves*, Mathematics Colloquium, The Institute of Mathematical Sciences, Chennai

## Expository lectures

- 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

- 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

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## Service

- 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*