

# CURRICULUM VITAE

MANAMI ROY

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<b>Contact Information</b>	<a href="#">Department of Mathematics</a> Fordham University Rose Hill campus 441 E Fordham Rd Bronx, NY 10458.	<a href="mailto:mroy17@fordham.edu">mroy17@fordham.edu</a> <a href="mailto:manami.roy.90@gmail.com">manami.roy.90@gmail.com</a> <a href="https://faculty.fordham.edu/mroy17/">https://faculty.fordham.edu/mroy17/</a>
<b>Research Interest</b>	My research interest lies at the intersection of number theory and arithmetic geometry. Specifically, I am interested in automorphic forms, local-global representation theory, Galois representations, elliptic curves, classical modular forms, L-functions, and the Langlands program.	
<b>Education</b>	<a href="#">University of Oklahoma</a> , Norman, OK, USA Ph.D. in Mathematics <b>Advisor:</b> Dr. Ralf Schmidt <b>CGPA:</b> 4.0/4.0  <a href="#">IISER Kolkata</a> , Mohanpur, Nadia, West Bengal, India M.S. of the Integrated PhD. Program in Mathematics <b>Advisor:</b> Dr. Saugata Bandyopadhyay and Dr. Kaneenika Sinha <b>CGPA:</b> 9.54/10.0 (3.8/4.0)  <a href="#">Bethune College, Calcutta University</a> , Kolkata, India B.Sc.(Honors) in Mathematics	2014-2019  2011-2014  2009 - 2011
<b>Current Employment</b>	Peter M. Curran Visiting Assistant Professor Fordham University Department of Mathematics 441 E Fordham Rd Bronx, NY 10458.	August 2019 - present
<b>Publications</b>	<i>On counting cuspidal automorphic representations for <math>GSp(4)</math></i> (with Ralf Schmidt and Shaoyun Yi), preprint available upon request, 2020.  <i>Elliptic curves and paramodular forms</i> , University of Oklahoma doctoral dissertation, 2019.  <i>Paramodular forms coming from elliptic curves</i> , arxiv preprint., 2019  <i>Level of Siegel modular forms constructed via <math>\text{sym}^3</math> lifting</i> , Automorphic forms and related topics, 225227, Contemp. Math., 732, Amer. Math. Soc., Providence, RI, 2019.	
<b>Master's Research Experience</b>	<i>A new formulation of the union-closed sets conjecture</i> Project Supervisor: Dr. Himadri Mukherjee IISER Kolkata, Mohanpur, Nadia, West Bengal, India. (2013-2014)  <i>Masters Thesis: The Ramanujan conjectures and L-functions corresponding to cusp forms</i> Thesis Advisor: Dr. Kaneenika Sinha and Dr. Saugata Bandyopadhyay IISER Kolkata, Mohanpur, Nadia, West Bengal, India. (2012-2013)	

*Modular forms and p-adic number theory*  
 Summer Research Fellowship Program by IASc, INSA and NASI  
 Project Supervisor: Dr. Sanoli Gun  
 IMA, Chennai, India. (May-July 2013)

<b>Teaching Experience</b>	<u>At Fordham University, Bronx, New York:</u>	
	<b>As a primary instructor:</b>	
	Multivariable Calculus II	Spring 2020
	Calculus I	Fall 2019
	<b>As a recitation instructor:</b>	
	Calculus II	Spring 2020
	Calculus I	Fall 2019
	<u>At University of Oklahoma, Norman, Oklahoma:</u>	
	<b>As a primary instructor:</b>	
	Trigonometry and Precalculus	Spring 2018
Trigonometry and Precalculus	Fall 2017	
College Algebra	Summer 2017	
<b>As a teaching assistant/discussion leader:</b>		
Discrete Mathematics	Fall 2018	
(I help students with group work in class and proof writing)		
<a href="#">Differential and Integral Calculus II</a>	Spring 2017	
Differential and Integral Calculus II	Fall 2016	
Calculus and Analytic Geometry I	Spring 2016	
<a href="#">Calculus and Analytic Geometry II</a>	Fall 2015	
<a href="#">Mathematics Capstone course on Unsolved Problems in Mathematics</a>	Spring 2015	
(I helped students with group work, projects, and grading Sage codes)		
<b>As a grader:</b> I have graded many different courses so far, for example, advanced calculus, modern geometry, differential equations, and linear algebra.		
<b>As a tutor:</b> I have been tutoring in the <a href="#">Math Center</a> at the University of Oklahoma since Fall 2014 for precalculus, college algebra, and all the calculus courses.		
<u>At IISER-Kolkata, India:</u>		
<b>As a teaching assistant:</b>		
Analysis I (advanced calculus)	Autumn 2013	
Foundations I (an introductory course in abstract algebra)	Autumn 2013	
<b>Completed Training</b>	<i>The Departmental Teaching Certificate</i>	Spring 2018
	Department of Mathematics, University of Oklahoma.	
	<a href="#">Teach College Mathematics</a> , a mandatory course for all teaching assistants in the Department of Mathematics, University of Oklahoma.	Fall 2015
	<i>Advanced Tutor Training Programs for Business and Advanced Calculus</i>	Spring 2015
	Department of Mathematics, University of Oklahoma.	
<a href="#">Professional Ethics Training course in Responsible Conduct of Research</a> , conducted by the National Institute of Health [NIH] and National Science Foundation [NSF], University of Oklahoma.	Spring 2015	
<a href="#">Development for International Teaching Assistants</a> , a mandatory program for all international students at OU.	Fall 2014	
<b>Attended</b>	<a href="#">MAAIM</a>	November 1-3, 2019

<b>Workshops and Conferences</b>	Emory University, Atlanta, Georgia, USA	
	<a href="#">MAGNTS 2019</a>	October 12-13, 2019
	Ohio State University, Columbus, Ohio, USA.	
	<a href="#">TORA X</a>	April 5-7, 2019
	University of North Texas, Denton, Texas, USA.	
	<a href="#">Algebraic and Analytic Aspects of Automorphic Forms</a>	Feb 25-March 7, 2019
	ICTS, Bangalore, India.	
	<a href="#">Joint Mathematics Meetings</a>	January 16-19, 2019
	Baltimore, MA, USA.	
	<a href="#">Communicating Mathematics Effectively</a>	June 18-22, 2018
	University of Washington, Seattle, WA, USA.	
	<a href="#">TORA IX</a>	April 6-8, 2018
	University of Oklahoma, Norman, OK, USA.	
	<a href="#">Arizona Winter School</a>	March 3-7, 2018
	University of Arizona, Tucson, AZ, USA.	
<a href="#">Sage Days 90: Women in Sage</a>	October 22-25, 2017	
Harvey Mudd College, Claremont, CA, USA.		
<a href="#">UNCG Summer School in Computational Number Theory</a>	May 22-26, 2017	
University of North Carolina, Greensboro, NC, USA.		
<a href="#">TORA VIII</a>	March 31-April 2, 2017	
Oklahoma State University, Stillwater, OK, USA		
<a href="#">31st Automorphic Forms Workshop</a>	March 6-9, 2017	
East Tennessee State University, Johnson City, TN, USA.		
<a href="#">Connections for Women: Analytic Number Theory</a>	February 2-3, 2017	
MSRI, Berkeley, CA, USA.		
<a href="#">Algebra Symposium</a>	November 5, 2016.	
University of North Texas, Denton, Texas, USA.		
<a href="#">Building Bridges 3: 3rd EU/US Summer School + Workshop on Automorphic Forms and Related Topics</a>	July 11-22, 2016	
University of Sarajevo, Bosnia and Herzegovina.		
<a href="#">TORA VII</a>	April 8-10, 2016	
University of North Texas, Denton, Texas, USA.		
<a href="#">Graduate Algebra Symposium</a>	March 5, 2016	
University of Oklahoma, Norman, OK, USA.		
<a href="#">Advance Instructional School in Analytic Number Theory</a>	June 2015	
KIIT University, Bhubaneswar, India.		
<a href="#">TORA VI</a>	March 7-9, 2014	
University of Oklahoma, Norman, OK, USA.		
<a href="#">The Science Academies' Lecture Workshop</a>	July 2013	
Mathematics: Aspects, Prospects and a bit of History		
IMSc., Chennai, India.		

	Lectures on the Twin Prime Conjecture and Yitang Zhang's Result Speaker: Dr. M. Ram Murty IMSc., Chennai, India.	June 2013
	<a href="#">Summer Program in Mathematics (SPIM)</a> Harish-Chandra Research Institute (HRI), Allahabad, India.	June-July 2012
	Winter School on Waring Problem and Circle Method IISER Kolkata, Mohanpur, Nadia, West Bengal, India.	December 2011
<b>Selected talks</b>	<i>Local representations attached to rational elliptic curves with non-trivial torsion subgroups</i> Fordham Math Seminar, Fordham University.	March 26, 2020
	<i>Local representations attached to elliptic curves</i> <a href="#">MAAIM</a> , Emory University.	Nov 2, 2019
	<i>Paramodular forms coming from elliptic curves</i> <a href="#">Study group in number theory</a> , the Graduate Center, CUNY ( <b>Invited talk</b> ).	October 11, 2019
	<i>Paramodular forms coming from elliptic curves</i> TORA X, University of North Texas.	April 6, 2019
	<i>Paramodular forms coming from elliptic curves</i> ISI, Kolkata, India ( <b>Invited talk</b> ).	March 15, 2019
	<i>Paramodular forms coming from elliptic curves</i> IISER, Pune, India ( <b>Invited talk</b> ).	March 8, 2019
	<i>Elliptic Curves and Paramodular Forms</i> AMS Contributed Paper Session on Number Theory, III Joint Mathematics Meetings	January 18, 2019
	<i>Some paramodular forms connected with elliptic curves</i> AWM Workshop: Poster Presentations by Women Graduate Students Joint Mathematics Meetings	January 18, 2019
	<i>Paramodular forms coming from elliptic curves</i> Algebra and Representation Theory Seminar, University of Oklahoma.	November 16, 2018
	<i>Paramodular forms coming from elliptic curves via <math>\text{sym}^3</math> lifting</i> Communicating Mathematics Effectively, University of Washington.	June 21, 2018
	<i>Paramodular forms coming from elliptic curves using <math>\text{sym}^3</math> lifting</i> TORA IX, University of Oklahoma.	April 7, 2018
	<i>Global and local fields</i> Student Algebra Seminar, University of Oklahoma.	September 14, 2017
	<i>An introduction to my research interest</i> UNCG Summer School in Computational Number Theory.	May 22, 2017
	<i>Level of Siegel modular forms of degree 2 coming from the <math>\text{sym}^3</math> lifting</i> Clemson University ( <b>Invited talk</b> ).	April 3, 2017

	<i>An introduction to the principle of functoriality</i> Clemson University ( <b>Invited talk</b> ).	April 3, 2017
	<i>Level of Siegel modular forms constructed via <math>\text{sym}^3</math> lifting</i> 31st Automorphic Forms Workshop East Tennessee State University.	March 7, 2017
	<i>Group cohomology via projective resolutions</i> Student Algebra Seminar, University of Oklahoma.	February 24, 2017
	<i>Group cohomology II</i> Student Algebra Seminar, University of Oklahoma.	February 17, 2017
	<i>Level of Siegel modular forms constructed via <math>\text{sym}^3</math> lifting</i> Algebra Symposium, University of North Texas ( <b>Invited talk</b> ).	November 5, 2016
	<i><math>\text{sym}^3</math> and Siegel modular forms</i> Building Bridges 3rd EU/US Workshop on Automorphic Forms and Related Topics, University of Sarajevo.	July 21, 2016
	<i>The principle of functoriality</i> Algebra and Representation Theory Seminar, University of Oklahoma.	May 6, 2016
	<i>Functoriality for <math>\text{GL}(n)</math></i> Student Algebra Seminar, University of Oklahoma.	April 5, 2016
	<i>Local Langlands correspondence for <math>\text{GL}(n)</math></i> Student Algebra Seminar, University of Oklahoma.	March 29, 2016
	<i>Algebraic varieties</i> Student Algebra Seminar, University of Oklahoma.	October 29, 2015
	<i>Representable functors</i> Category Theory Seminar, University of Oklahoma.	October 15, 2015
	<i>A proof of the Ramanujan conjectures using the theory of modular forms</i> IISER-Kolkata, India.	May 2013
	<i>When converse of Banach fixed point theorem holds</i> IISER-Kolkata, India.	February 2013
	<i>Application of modular forms</i> IISER-Kolkata, India.	November 2012
<b>Academic Service</b>	<b>Organizer</b> of the <a href="#">Graduate Student Seminar</a> University of Oklahoma.	2018
	<b>Helped organizing</b> <a href="#">TORA IX</a> University of Oklahoma.	2018
	<b>Organizer</b> of the <a href="#">Student Algebra Seminar</a> University of Oklahoma.	2017
	<b>Mentor</b> for Undergraduate Directed Reading Program Subject: Elementary Number Theory University of Oklahoma.	2016
	<b>Tutor</b> for Undergraduate Mathematics in the <a href="#">Math Center</a>	2014-present

University of Oklahoma.

**Volunteer** for [Math Day](#) 2014-present  
University of Oklahoma.

**Volunteer work and poster presentation** 2012  
Prof. S. N. Bose Science Agriculture and Book Fair  
for the department of mathematics and statistics, IISER Kolkata.

**Awards and Fellowships** *MGSA Good Mentor Award* April 26, 2019  
University of Oklahoma.

*Best Poster Award at TORA X, University of North Texas* April 6, 2019  
Poster title: Some paramodular forms connected with elliptic curves

*Department of Mathematics Graduate Fellowship* 2015 - 2019  
University of Oklahoma.

*Harold Huneke Graduate Scholarship* 2016  
University of Oklahoma.

*Richard V. Andree Memorial Scholarship* 2015  
University of Oklahoma.

*Inspire Fellowship* for PhD 2013  
(A national fellowship awarded to promising graduate students in India.)

Qualified *CSIR National Eligibility Test (NET) for JRF* 2013  
(A national exam to apply for PhD degree in India.)

Qualified *Graduate Aptitude Test in Engineering (GATE)* 2013  
(A national exam to apply for PhD degree at many renowned institutes in India.)

M.Sc. rank at IISER, Kolkata in Mathematics: **First** 2013

B.Sc. rank all over the Calcutta University in Mathematics: **Third** 2011

**Computing Skill** C, Python, Sage, Magma, Mathematica, Latex.

**References** [Dr. Ralf Schmidt](#)  
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