Chitrabhanu Chaudhuri
Curriculum Vitae

Contact Information

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Biodata

Date of Birth	9 July 1985
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Research Interests

Complex Algebraic Geometry, Moduli of Curves, Hodge Theory.

Education

Undergraduate 2004 - 2007	**Indian Statistical Institute** Bangalore, India Bachelor of Mathematics Honours
PhD 2007 - 2013	**Northwestern University** Evanston, Illinois Doctor of Philosophy Advisor: Professor Ezra Getzler

Employment

- **Assistant Professor** (since Feb 2021), NISER Bhubaneshwar, Odisha, India.

- **INSPIRE Faculty** (June 2017 - Jan 2021), IISER Pune, Maharastra, India.

- **Postdoctoral fellow** (December 2014 - May 2017), IISER Pune, Maharashtra, India.

- **Visiting Postdoctoral fellow** (Oct 2013 - Oct 2014), Max Planck Institute for Mathematics, Bonn Germany.

- **Teaching Assistant** (2008 - 2012), at Northwestern University, Evanston USA.

Publications

- Arakelov self intersection of the relative dualising sheaf of modular curves $X_0(p^2)$; with Debargha Banerjee and Diganta Borah, Math. Z. (accepted).

- Semi-stable models of modular curves $X_0(p^2)$ and some arithmetic applications; with Debargha Banerjee, Israel J. Math (accepted).

- Elliptic Gromov-Witten Invariants of del Pezzo Surfaces; with Nilkantha Das, J. Gökova Geom. Topol. GGT, Volume 13 (2019), 1-14.

- Equivariant cohomology of certain moduli of weighted pointed rational curves, Manuscripta Math. 150 (2016), no. 1-2, 137-150.

- The cohomological excess of certain moduli spaces of curves of genus g, Int. Math. Res. Not. IMRN (2015), no. 4, 1056-1074.

PhD Thesis

Topological bounds on certain open subvarieties of the compactified moduli space of curves.

Awards

Gold Medallist at Bachelor of Mathematics(hons), Indian Statistical Institute, Bangalore.

Workshops and Conferences Organised

- Workshop on Quasiconformal Mappings and Teichmüller Theory at KSOM Kozhikode (19 - 23 Feb 2020).
- Refresher course for College Teachers in Complex Analysis at KSOM Kozhikode (28 Nov - 1 Dec 2019).
- Workshop and Discussion meeting on Perfectoid Spaces at ICTS Bangalore (9-20 September 2019).

Teaching Experience

Courses Taught (IISER Pune)

Spring 2015	Calculus on Manifolds
Fall 2015	Introduction to Proofs (co-instructor with Kaneenika Sinha)
Spring 2016	Ph.D. Analysis II (co-instructor with Chandrasheel Bhagwat)
Fall 2017	Galois Theory
Spring 2018	Calculus on Manifolds
Fall 2018	Riemann Surfaces
Fall 2019	Introduction to Computing
Spring 2020	Commutative Algebra

Courses Taught (Northwestern University)

Summer 2012	Differential Calculus of Multivariable Functions

Reading Projects Supervised

Fall 2019	Rahul Mistry	Modular Curves and Algebraic Geometry
Fall 2018	Sayantika Mondol	Differential Geometry of Curves and Surfaces
Spring 2019	Sayantika Mondol	Teichmüller Theory
Spring 2019	Arijit Chakraborty	Differential Geometry of Curves and Surfaces

Talks

2012	May 26, *Young Researchers Meet*, Stanford University
	Nov 3, University of Wisconsin, *Midwest Algebraic Geometry Conference for Graduate Students*
	Nov 30, Tata Institue for Fundamental Research Mumbai
	Dec 19, Indian Institute of Science, Bangalore
2013	Jan 12, *Joint Mathematics Meetings*, San Diego. Event: Algebraic Varieties, Moduli Spaces, and Singularities
	Jan 29, Northwestern University, *Geometry and Physics Seminar*
	Aug 1, Indian Statistical Institute Bangalore
	Aug 4, Belur Ram Krishna Mission, *Colloquim talk*
2014	Jan 28, Utrecht University, *Geometry and Algebra Seminar*
	Aug 7, Max Planck Institute for Mathematics Bonn, *Oberseminar*
2015	Jan 23, IISER Pune, *Colloquium*
	Oct 1, IISER Pune, *Mathematics Symposium*
	Dec 14-15, ISI Kolkata, *Advanced Training in Mathematics Workshop in Topology*

2016	Apr 1, ICTS Bangalore, *Higgs Bundles Conference*
	Apr 4, ISI Bangalore, *Algebra Seminar*
	Aug 12, IISER Pune, *Mathematics Symposium*
	Aug 23, IISER Trivandram, *Mathematics Seminar*
2017	July 15-20, NISER Bhubaneshwar, *J-holomorphic Curves and Gromov Witten Theory*
	Dec 29, ICTS Bangalore, *J-holomorphic Curves and Gromov Witten Theory*
2018	July 17, ICTS Bangalore, *Integrable Systems in Mathematics, Condensed Matter and Statistical Physics*
	Sep 15, IISER Pune, *Mathematics Symposium*
	Nov 26-30, IISER Kolkata, *Introduction to Teichmuller Theory*
2019	Feb 15, IISER Pune, *Pune-Mumbai Number Theory Seminar*
	Feb 25, IIT Madras, *Geometry Topology Seminar*
	Aug 2, IIT Hyderabad, *Algebra Seminar*
	Sep 11, ICTS Bangalore, *Perfectoid Spaces Workshop*
	Nov 28 - Dec 1, KSoM Kozhikode, *Refresher course for Teachers in Complex Analysis*

Other Expertise

- Significant experience with mathematical softwares such as Sage, Maple and Matlab.
- Can program in Python, Java and C++.