CURRICULUM VITAE

NAME Sujoy Chakraborty

CURRENT ADDRESS

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SEX Male

DATE OF BIRTH March 31, 1992

AFFILIATION • *Post–doctoral Research Fellow*, IISER Tirupati

(July 2023 –)

• Institute Post-doctoral Fellow, IIT Madras

(July 2021 – June 2023)

EDUCATION

• Ph.D in Mathematics,

Tata Institute of Fundamental Research, Mumbai, India

2015 - 2021

Thesis title: On Chow Group Of 1-cycles And Abel-Jacobi Maps

On The Moduli Space Of Parabolic Bundles Over A Curve **Advisor**: Prof. Indranil Biswas

114 VISON 1161 Indiani Biswa

• M.Sc. in Mathematics,

Chennai Mathematical Institute (CMI), Chennai, India

2013 - 2015

• B.Sc. (Honours) in Mathematics and Computer Science,

Chennai Mathematical Institute, Chennai, India

2010 - 2013

RESEARCH INTERESTS

Algebraic Geometry, more specifically: moduli space of vector bundles

and related topics, parabolic vector bundles, Algebraic stacks.

COMPUTER SKILLS

Programming: Haskell, Python, C, C++, Java

Scripting: LATEX

LANGUAGES *Bengali:* native

Hindi, English: fluent

PUBLICATIONS • (With I. Biswas and A. Dey) Brauer group of moduli of parabolic symplectic AND PREPRINTS bundles (submitted)

- (With A. Paul) Equivariant parabolic connections and stack of roots (submitted) arxiv link
- (With S. Majumder) Orthogonal and symplectic parabolic connections and stack of roots
 Bulletin des Sciences Mathématiques Vol. 191 (2024) https://doi.org/10.1016/j.bulsci.2024.103397
- (With A. Paul) Real structures on root stacks and parabolic connections Geometriae Dedicata Vol. 218, No. 35 (2024) https://doi.org/10.1007/s10711-023-00880-1
- (With I. Biswas and A. Dey) Chen–Ruan cohomology and orbifold Euler characteristic of moduli spaces of parabolic bundles
 Journal of Geometry and Physics Vol. 202, no. 105236 (2024)
 https://doi.org/10.1016/j.geomphys.2024.105236
- (With I. Biswas and A. Dey) Brauer group of moduli stack of stable parabolic PGL(r) -bundles over a curve International Journal of Mathematics Vol. 35, No. 01 (2023) https://doi.org/10.1142/S0129167X23500957
- On Abel-Jacobi maps of moduli of parabolic bundles over a curve *Communications in Algebra* Vol. 49, No. 9 (2021) https://doi.org/10.1080/00927872.2021.1903913
- Chow group of 1-cycles of the moduli of parabolic bundles over a curve *Proceedings – Mathematical Sciences* Vol. 131, No. 22 (2021) https://doi.org/10.1007/s12044-021-00616-9
- (With A. Paul) Picard Group and Fundamental Group of the Moduli of Higgs Bundles on Curves
 Complex Manifolds Vol. 5, issue 1 (2018)
 https://doi.org/10.1515/coma-2018-0009

AWARDS AND • Recipient of **INSPIRE Scholarship**, funded by the government of India, SCHOLARSHIPS for the period 2010-2015.

• Selected for **NBHM Junior Research Fellowship** (2013).

TALKS GIVEN • Brauer groups of moduli spaces of parabolic PGL(r) and Sp(2r) – bundles over a curve

HRI Prayagraj (December 3, 2024)

- Real Structures on Root Stacks and Parabolic Connections Invited lecture at the Discussion meeting on Algebra and Geometry, IISER Bhopal (August 16, 2023)
- Chen-Ruan cohomology for the moduli space of parabolic vector bundles over a IISER Kolkata (December 19, 2022)
- Brauer group of the moduli stack of stable parabolic PGL(r) bundles over a curve Invited lecture at SRM university Amaravathi, India (July 19, 2022) Link
- Moduli of parabolic bundles over a curve and its first rational Chow group Algebraic Geometry Seminar, IIT Bombay (September 7, 2020)
- Picard Group and Fundamental Group of the Moduli of Higgs Bundles on Curves CIRM Luminy, France (January 31, 2019)
- Stable and semistable vector bundles Geometry seminar, TIFR Mumbai (January 19, 2018)
- Kodaira vanishing theorem on compact complex manifolds, TIFR Mumbai (December 26, 2017)

Conferences ATTENDED

- WORKSHOPS/ Workshop and Conference on Algebraic Geometry, HRI Prayagraj (December 2024)
 - NCM Workshop on derived categories and semi-orthogonal decompositions, CMI

Chennai, India (June 2024)

- BIRS-CMI workshop on New directions in rational points, CMI Chennai, India (January 2024)
- Workshop on Spherical Varieties and Related Topics, IIT Madras, India (December 2023)
- Topics in Hodge Theory, ICTS Bangalore, India (February 2023)
- Vector Bundles in Chennai, Indian Institute of Technology Chennai, India (February 2023)
- Topics in Algebraic Geometry and Commutative Algebra, SRM university Amaravathi, India (July 2022)
- Vector Bundles 2022, TIFR Mumbai (March 2022)
- Lecture Series in Algebraic Geometry, (online) IIT Madras (November 2021)
- Moduli Of Vector Bundles And Related Structures, ICTS Bangalore (February 2020)
- Winter School Master Class: Complex Geometry: A Modern Viewpoint, CIRM (Centre International de Rencontres Mathématiques), Marseille, France (January 2019)
- ATMW Geometric Invarint Theory, Kerala School of Mathematics, Kerala (May 2018)
- Discussion Meeting On Analytic And Algebraic Geometry, ICTS Bangalore (March 2018)
- National Conference On Commutative Algebra and Algebraic Geometry (CAAG), IISER Pune (December 2017)
- AIS Workshop on Differential Geometry, IISER Pune (September 2017)
- Advanced Instructional School on Schemes and Cohomology, Kerala School of Mathematics, Kerala (December 2014)

COURSES TAUGHT

• Instructor for Basic Mathematics, IISER Tirupati (Fall 2024)

- Co-instructor for *Commutative Algebra*, IISER Tirupati (Spring 2024)
- Teaching assistant for *Probability and Statistics*, IISER Tirupati (Fall 2023)
- Teaching assistant for Series and Matrices, IIT Madras (Spring 2023)
- Principal instructor for *Algebra II*, IIT Madras (Fall 2022)

EVENTS ORGANIZED

- Graduate College Seminar on Moduli Spaces and Geometric Invariant Theory, IISER Tirupati (ongoing) website link
- Lecture Series in Algebraic Geometry (online seminar), IIT Madras (2021) website link

REFERENCES

(1) Indranil Biswas

Affiliation: Professor

Address: Department of Mathematics, Shiv Nadar University, NH91, Tehsil Dadri, Greater Noida, Uttar Pradesh 201314, India email: indranil.biswas@snu.edu.in , indranil29@gmail.com

(2) Arijit Dey

Affiliation: Professor

Address: Department of Mathematics, Indian Institute of Technology Chennai, Chennai-600036, Tamil Nadu, India email: arijit@iitm.ac.in, arijitdey@gmail.com

(3) D. S. Nagaraj

Affiliation: Visiting Professor

Address: Department of Mathematics, Indian Institute of Science Education and Research Tirupati, Chittor-517619, Andhra Pradesh, India email: dsn@labs.iisertirupati.ac.in