Ayush Jaiswal Last update: May 7, 2023

Contact Information

Indian institute of science education and research, Tirupati

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Research Background

Algebraic Geometry

More specifically, I am studying parabolic bundles and d-holomorphic bundles on Klein surfaces. I have described gauge theoretic quotients of certain space of connections on parabolic bundles on Klein surface as embedded in real points of moduli of parabolic bundles on compact Riemann surface. Presently, I am studying some invariants associated to moduli spaces.

Education	2023(ongoing)	Indian institute of science education and research, Tirupati(IISER T), India • Postdoc in Department of Mathematics
	$2017 – 2023 (\mathrm{expected})$	Indian Institute of Technology, Gandhinagar(IITGn), India
		• Ph.D. in Discipline of Mathematics, CPI: 7.94 – via 44 credits.
		• Thesis: On d-holomorphic connections and gauge theoretic aspects of parabolic bundles over Klein surface
		Advisor: Prof. Sanjaykumar Amrutiya.

Technical Skills

- Programming Languages: C, Python
- Technical Softwares: MATLAB, Git-hub, Latex

Research Interests

Algebraic Geometry

2013-2015

- Parabolic bundles
- *d*-holomorphic bundles

Selected Publications/Preprints

∑ Sanjay Amrutiya, Ayush Jaiswal, "On d-holomorphic connections", Proceedings-Mathematical Sciences 133, no. 2 (2023): 21.

Indian Institute of Technology, Kanpur(IITK), India.

• M.Sc., Mathematics. CPI: 7.2 - via 80 credits

∠ Sanjay Amrutiya, Ayush Jaiswal, "A gauge theoretic aspects of parabolic bundles over Klein surfaces", arXiv preprint arXiv: 2202:06210; 2022 (to be appear in Rocky mountain journal of mathematics)

Professional	2010-2011	Secured 2nd position(merit based) in during B.Sc.(IInd year)
Achieve- ments/Awards	2013	Joint Admission Test for Masters(JAM) organised by Indian Institute of Technology, Delhi(IITD)
Scholarships	2015	Graduate Aptitude Test for Engineering(GATE) organised by Indian Institute of Technology, Kanpur(IITK)
	2016	Graduate Aptitude Test for Engineering(GATE) organised by Indian Institute of Science, Bangalore(IISC)
	2015,2016	

Workshops/ Conferences attended	10 Feb – 14 Feb, 2020	Moduli of bundles and related structures ICTS, Bangalore, India.
	4 Mar – 15 Mar, 2019	Workshop Characteristic classes and cobordism IIT Bombay, Powai, Maharashtra, India.
	24 June–13 July 2019	AIS(Advanced Instructional School) Linear Algebraic Groups IIT Bombay, Powai, Maharashtra, India.
	2 January – 2 May, 2021	AIC(Advanced Instructioncal Course) Commutative Algebra online mode.
	25 June – 14 July, 2018	AIS(Advanced Instructional School) Basic Algebraic Geometry IISER Pune, Pune, Maharashtra, India.
Delivered Talks/Poster Presentations	12 Dec – 16 Dec, 2022	On d-holomorphic connections(Talk) Conference on Algebraic Geometry Harish Chandra Research Institute, Prayagraj, India.
	6 Feb – 11 Feb, 2023	On d-holomorphic connections (Poster presentation) Vector bundles in Chennai Department of mathematics, IIT Madras, Chennai, India.
	16 Aug – 18 Aug, 2023	On d-holomorphic connections(Talk) Discussion meeting on algebra and geometry Department of mathematics, IISER Bhopal, Madhya Pradesh, India.
Teaching Experience	Autumn 2017 – 2018	Teaching Fellow MA 101, Mathematics I(Real Analysis and Several Variable Calculus) at IIT Gandhinagar, Gujarat, India
	Spring 2018 – 2019	Graduate Teaching Fellow MA 102, Mathematics II(Linear Algebra and Differential Equations) at IIT Gandhinagar, Gujarat, India
	Autumn $2019 - 2020$	Graduate Teaching Fellow MA 504, Linear Algebra at IIT Gandhinagar, Gujarat, India
	Spring 2019 – 2020	Graduate Teaching Fellow MA 102, Mathematics II(Several Variable Calculus and Complex Analysis) at IIT Gandhinagar, Gujarat, India
	Spring 2022–2023	Teaching assitant MTH 121, Linear algebra and applications at IISER Tirupati, Tirupati, Andhra Pradesh, India
	Summer 2022–2023	Instructor MTH 122, Linear algebra and applications at IISER Tirupati, Tirupati, Andhra Pradesh, India
	Summer 2022–2023	Instructor MTH 211, Multivariable Calculus at IISER Tirupati, Tirupati, Andhra Pradesh, India
	Autumn 2023–2024	Teaching assitant