Dr. Priyabrata Mandal
Curriculum Vitae

🏠 Manipal Institute of Technology, Manipal, 576104

📞 8939414839, 8013935655

✉ p.mandal@manipal.edu, priyabrata121314@gmail.com

CURRENT POSITION

FROM JUNE 10, 2023 ONWARDS   (FULL TIME)

Assistant Professor

Department of Mathematics
Manipal Institute of Technology
Manipal-576104, Karnataka

AREA OF SPECIALISATION

- **Algebra and Number theory**
- **Quadratic forms**
- **Central simple algebra with involutions**

DOCTORAL RESEARCH

Thesis title- "Totally positive field extensions and pythagorean closures of formally real fields"

Date of PhD Defence: 24 February 2023.

Doctoral supervisor: Prof. Preeti Raman.

For a formally real field F, we study totally positive field extensions K of F. We prove that, if K/F is Galois and totally positive then so is the corresponding extension of their pythagorean closures $K_{\mathrm{py}}/F_{\mathrm{py}}$. We also study the behaviour of weak isotropy and weak hyperbolicity of central simple algebras with an orthogonal involution over totally positive field extensions. We use some of these results and show that a conjecture due to Becher holds in some new cases.

PUBLICATIONS

P. Mandal, R.Preeti, A. Soman. *Totally positive field extensions and the pythagorean index*, Journal of Algebra and its Applications, D.O.I- https://doi.org/10.1142/S0219498824500348

PAST POSITION DETAILS

FROM DECEMBER 30, 2022- JUNE 9, 2023

Post-Doctoral fellow

Department of Mathematics
IIT Bombay

FROM OCTOBER 26, 2022- DECEMBER 29, 2022

Research Associate

Department of Mathematics
IIT Bombay

EDUCATION

2023	**Doctor of Philosophy** CGPA: 7.79 Mathematics *Indian Institute of Technology Bombay*
2014-2016	**Master of Science** CGPA: 8.2 Mathematics *Indian Institute of Technology Kanpur*
2011-2014	**Bachelor of Science (Hons)** MARKS OBTAINED: 77% Mathematics *Jadavpur University, Kolkata*
2011	**Higher Secondary Examination (12th standard)** MARKS OBTAINED: 77.4% Science group *Jadavpur Vidyapith, Kolkata*
2009	**Secondary Examination (10th standard)** MARKS OBTAINED: 84.9% *Sarada Vidyapith, Kolkata*

ACADEMIC AWARDS

2016	Qualified GATE in Mathematical Sciences
DEC 2016	Qualified CSIR Net JRF in Mathematical Sciences
JUNE 2016	Qualified CSIR Net JRF in Mathematical Sciences
2014	Qualified WBCSC SET in Mathematical Sciences

CULTURAL AWARDS

- Secured 1st position in *Jugalbandi* singing, PG CULT 2018-19, IIT Bombay
- Completed 24 km individual run in *Runathon* 2019, IIT Bombay

ACADEMIC RESPONSIBILITIES

I have been elected as *Department Research Scholar Representative* in the Department of Mathematics at IIT Bombay for the academic session 2019-2020 and 2020-2021.

COMPUTER SKILLS

BEGINNER	Microsoft Word, Power Point, Excel
INTERMEDIATE	C-Programming
EXPERT	LaTeX

TEACHING EXPERIENCE

Teaching assistance for M.Sc 2nd year course

Representation of finite groups
IIT Bombay

SPRING 2020 (FULL TIME)

Teaching assistance for B.tech 2nd year course

Numerical Analysis
IIT Bombay

AUTUMN 2019, AUTUMN 2018 (FULL TIME)

Teaching assistance for B.tech 1st year course

Calculus
IIT Bombay

SPRING 2019, SPRING 2018 (FULL TIME)

Teaching assistance for B.tech 1st year course

Ordinary Differential Equations (Half semester)
IIT Bombay

SPRING 2019, SPRING 2018 (FULL TIME)

Teaching assistance for B.tech 1st year course

Linear Algebra (Half semester)
IIT Bombay

REFERENCES

Dr. Preeti Raman

POSITION	Professor
EMPLOYER	Department of Mathematics
	Indian Institute of Technology Bombay
EMAIL	preeti@math.iitb.ac.in
PHONE	022- 2576 7493 (Work)

WORKSHOPS

DEC 2022	37th Annual Conference of RMS
	SSN College of Engineering, Chennai
JUNE 2019	Advanced Instructional Schools, NCM
	Linear Algebraic Groups
	IIT Bombay
DEC 2016	ATM school workshop, NCM
	Algebraic Structures on Manifolds
	ISI Kolkata
DEC 2014	Annual Foundation School-I, NCM
	Tezpur University

LANGUAGES

ENGLISH :	Read, Write, Speak
HINDI :	Read, write, Speak
BENGALI :	Read, write, Speak

INTERESTS AND ACTIVITIES

Photography, Singing, Playing Guitar, Painting, Table Tennis, Cricket, Traveling and Trekking.