Mr. Priyabrata Mandal
Curriculum Vitae

🏠 Indian Institute of Technology Bombay, Mumbai, 400076

📞 8939414839, 8013935655

✉ priyabrata21314@gmail.com, priyabrata@math.iitb.ac.in

🖥 http://www.math.iitb.ac.in/ priyabrata/

DOCTORAL RESEARCH

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

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_{py}/F_{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.

CURRENT POSITION

FROM DECEMBER 30, 2022 (FULL TIME)

Post-Doctoral fellow

Department of Mathematics
IIT Bombay

FROM OCTOBER 26, 2022- DECEMBER 29, 2022

Research Associate

Department of Mathematics
IIT Bombay

TEACHING EXPERIENCE

AUTUMN 2020 (FULL TIME)

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

EDUCATION

2016 – 2022	**Doctor of Philosophy** THESIS SUBMITTED ON 25th OCTOBER, 2022 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*
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

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

COMMUNICATION SKILLS

AUTUMN 2022   Pre synopsis seminar on " Pythagorean Index and Totally Positive Extensions "

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

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.