

PARTHA PRATIM GHOSH

POSTDOCTORAL RESEARCHER IN PROBABILITY THEORY
Ruhr-Universität Bochum

PERSONAL DETAILS

PLACE AND DATE OF BIRTH : Midnapore, India | 10 October 1993
OFFICE ADDRESS : Faculty of Mathematics, Ruhr-Universität Bochum
Gebäude IB 2/105 – PF 71, Universitätsstraße 150
44780 Bochum, Germany
PHONE : +49 1626472995
EMAIL : p.pratim.10.93@gmail.com
ORCID ID : 0000-0002-4801-4538
PERSONAL WEBSITE : sites.google.com/view/parthapratim

WORK EXPERIENCE

Nov 2025 – present	POSTDOCTORAL RESEARCHER at Fakultät für Mathematik , Ruhr-Universität Bochum MENTOR: Christoph Thäle
Nov 2022 – Oct 2025	POSTDOCTORAL RESEARCHER at Institut für Mathematische Stochastik , Technische Universität Braunschweig MENTOR: Benedikt Jahnel
JUL 2022 – SEP 2022	VISITING SCIENTIST at Theoretical Statistics and Mathematics Unit, Indian Statistical Institute , Delhi Centre

SCIENTIFIC EDUCATION

SEP 2016 – MAY 2022	PHD IN STATISTICS, Indian Statistical Institute , Delhi Centre ADVISOR: Antar Bandyopadhyay THESIS: A Last Progeny Modified Branching Random Walk
JUL 2014 – MAY 2016	MASTER OF STATISTICS (M. STAT.), Indian Statistical Institute , Kolkata SPECIALIZATION: Mathematical Statistics and Probability
JUL 2011 – MAY 2014	BACHELOR OF STATISTICS WITH HONOURS (B. STAT. (HONS.)), Indian Statistical Institute , Kolkata

ACADEMIC ACHIEVEMENTS AND HONOURS

1. Recipient of [Shyama Prasad Mukherjee Fellowship](#) (in Mathematics) awarded by Council of Scientific and Industrial Research, Government of India in 2019.
2. Secured rank **1** in [National Eligibility Test](#) (in Mathematics) for Junior Research Fellowship and eligibility for Lectureship conducted by CSIR-UGC, Government of India in June 2018.
3. Recipient of [NBHM Travel Grant](#) awarded by Department of Atomic Energy, Government of India to attend [International Congress of Mathematicians \(ICM\)](#) held in 2018 in Rio de Janeiro, Brazil.
4. Recipient of [INSPIRE Scholarship](#) awarded by Department of Science and Technology, Government of India in 2011.

PREPRINTS AND PUBLICATIONS

BRANCHING RANDOM WALK	<ol style="list-style-type: none">1. P. P. Ghosh, and B. Mallein. Extremal Process of Last Progeny Modified Branching Random Walks. To appear in <i>ALEA Latin American Journal of Probability and Mathematical Statistics</i>, 2025+. [PDF]2. A. Bandyopadhyay, and P. P. Ghosh. Right-Most Position of a Last Progeny Modified Branching Random Walk. <i>Journal of Theoretical Probability</i>, 38(2): Paper No. 34, 2025. [PDF]3. A. Bandyopadhyay, and P. P. Ghosh. Right-Most Position of a Last Progeny Modified Time Inhomogeneous Branching Random Walk. <i>Statistics & Probability Letters</i>, 193: Paper No. 109697, 2023. [PDF]4. P. P. Ghosh. Large Deviations for the Right-Most Position of a Last Progeny Modified Branching Random Walk. <i>Electronic Communications in Probability</i>, 27: Paper No. 6, 2022. [PDF]
TRAFFIC-FLOW IN TELECOM- MUNICATION NETWORK	<ol style="list-style-type: none">1. P. P. Ghosh, B. Jahnel, and Y. Steenbeck. Throughput in Inhomogeneous Planar Drainage Networks. 2025+. [PDF]2. P. P. Ghosh, B. Jahnel, and S. K. Jhawar. Large and Moderate Deviations in Poisson Navigations. <i>Advances in Applied Probability</i>, 2025. [PDF]
PERCOLATION	<ol style="list-style-type: none">1. P. P. Ghosh, and R. Roy. Criticality and Covered Area Fraction in Confetti and Voronoi Percolation. <i>Journal of Statistical Physics</i>, 186(1): Paper No. 20, 2022 [PDF]
MISCELLANEOUS	<ol style="list-style-type: none">1. P. P. Ghosh, and S. K. Bhandari. Characterization of Extreme Copulas. <i>Preprint</i>, 2017. [PDF]

RESEARCH VISITS

12–14 Nov 2025	Anton Bovier , Universität Bonn, Germany
25 AUG 2025	Benedikt Jahnel , Weierstrass Institute for Applied Analysis and Stochastics, Germany
10–14 FEB 2025	Bastien Mallein , Université Toulouse III Paul Sabatier, France
21–28 AUG 2024	Rahul Roy , Indian Statistical Institute, India
24–27 JUN 2024	Nina Gantert , Technical University of Munich, Germany
31 JUL – 08 AUG 2023	Antar Bandyopadhyay , Indian Statistical Institute, India
30 JAN – 03 FEB 2022	Gábor Pete , Alfréd Rényi Institute of Mathematics, Hungary

WORKSHOP ORGANIZATION

17–21 FEB 2025	Stochastic Processes on Random Geometries at Technische Universität Braunschweig, Braunschweig, Germany. Co-organized with the departmental research team and supported by SPP 2265.
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SELECTED TALKS

13 Nov 2025	Invited talk at <i>Advanced Seminar on Probability Theory</i>, Institute for Applied Mathematics, Universität Bonn, Germany <i>Extremal Process of Last Progeny Modified Branching Random Walks</i>
10 Nov 2025	Invited talk at <i>5th Workshop on Stochastic Geometry and Point Processes</i>, Ruhr-Universität Bochum, Germany <i>Large and moderate deviations in Poisson navigations</i>
17 JUL 2025	Invited talk at <i>Colloquium</i>, Institute for Mathematical Stochastics, Technische Universität Braunschweig, Germany <i>Criticality and Covered Area Fraction in Confetti Percolation</i>
13 MAR 2025	Contributed talk at <i>German Probability and Statistics Days 2025</i>, Technische Universität Dresden, Germany <i>Extremal Process of Last Progeny Modified Branching Random Walks</i>
14 AUG 2024	Contributed poster at <i>Bernoulli-IMS 11th World Congress in Probability and Statistics 2024</i>, Ruhr-Universität Bochum, Germany <i>Extremal Process of Last Progeny Modified Branching Random Walks</i>
24 JUN 2024	Invited talk at <i>Advanced Seminar on Probability Theory</i>, Technical University of Munich, Germany <i>Extremal Process of Last Progeny Modified Branching Random Walks</i>
23 MAY 2023	Contributed poster at <i>Branching Processes and Applications</i>, Angers, France <i>A Last Progeny Modified Branching Random Walks</i>
01 MAR 2023	Invited talk at <i>Seminar on Interacting Random Systems</i>, Weierstrass Institute for Applied Analysis and Stochastics, Germany <i>A Last Progeny Modified Branching Random Walks</i>
29 SEP 2021	Invited talk at <i>Colloquium</i>, Department of Mathematics, Indian Institute of Technology Bombay, India <i>A Last Progeny Modified Branching Random Walks</i>

TEACHING EXPERIENCE

TECHNISCHE UNIVERSITÄT BRAUNSCHWEIG	<ol style="list-style-type: none">1. Principal Instructor Stochastic Processes and Continuous-time Financial Mathematics Masters in Mathematics and Masters in Mathematics in Finance and Industry, Spring 20252. Principal Instructor Point Processes Masters in Mathematics and Masters in Mathematics in Finance and Industry, Fall 20243. Principal Instructor Markov Processes Masters in Mathematics and Masters in Mathematics in Finance and Industry, Spring 20244. Principal Instructor Stochastic Processes and Continuous-time Financial Mathematics Masters in Mathematics and Masters in Mathematics in Finance and Industry, Spring 2023
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1. Principal Instructor | **Random Graphs**
3rd year Bachelors in Statistics, Spring 2021

1. Teaching Assistant | **Percolation Theory**
1st year Ph.D. and 2nd year Masters in Statistics in Probability Specialization, Fall 2021
2. Teaching Assistant | **Probability Theory III**
2nd year Bachelors in Statistics, Fall 2020
3. Teaching Assistant | **Measure Theoretic Probability**
1st year Masters in Statistics and 1st and 2nd year Masters of Science in Quantitative Economics, Spring 2019
4. Teaching Assistant | **Martingale Theory**
2nd year Masters in Statistics in Theoretical Statistics Specialization and Probability Specialization, Fall 2018
5. Teaching Assistant | **Measure Theoretic Probability**
1st year Masters in Statistics and 2nd year Masters of Science in Quantitative Economics, Spring 2018

REFERENCES

Prof. Antar Bandyopadhyay
(Ph.D. Supervisor)
Theoretical Statistics and Mathematics Unit
Indian Statistical Institute, Delhi Centre
7 S. J. S. Sansanwal Marg
New Delhi 110016, India.
✉ antar@isid.ac.in

Prof. Benedikt Jahnel
(Postdoc Mentor)
Institut für Mathematische Stochastik
Technische Universität Braunschweig
Universitätsplatz 2
38106 Braunschweig, Germany.
✉ benedikt.jahnel@tu-braunschweig.de

Prof. Rahul Roy
(Collaborator)
Theoretical Statistics and Mathematics Unit
Indian Statistical Institute, Delhi Centre
7 S. J. S. Sansanwal Marg
New Delhi 110016, India.
✉ rahul@isid.ac.in

Prof. Bastien Mallein
(Collaborator)
Institut de Mathématiques de Toulouse
Université Toulouse III Paul Sabatier
118 route de Narbonne
31062 Toulouse Cedex 9, France.
✉ bastien.mallein@math.univ-toulouse.fr