CURRICULUM VITAE

PARTHA MUKHOPADHYAY



May 6, 2025

Research Interests

• Foundations of theoretical physics - particularly (but not limited to) quantum field theory, gravity, quantum mechanics, and statistical physics.

Skills

- Technical Skills:
 - * Theoretical Physics: string theory, gravity, quantum field theory.
 - * Programming: LATEX, Mathematica, Cadabra, Python (beginner)
 - * Platforms: Zoom, Telegram, YouTube, Enabla, Linkedin, GitHub
- Pedagogical Skills:
 - * Teaching and curriculum design for undergraduate and graduate physics
 - * Project supervision and academic mentoring
 - * Open-access educational content creation

Open Access Course Initiative

Quantum Field Theory in Path Integral Approach I

May 2023 - Present

Graduate Level

- Weekly structured lectures on YouTube
- Chapter-wise presentation on Enabla
- Weekly Q&A sessions over Zoom (registration through Telegram)

Experience

Faculty of Theoretical Physics

2008 – Present

The Institute of Mathematical Sciences, Chennai, India

- Teaching and mentoring graduate and undergraduate students.
- Research in string theory, gravity, and quantum field theory.
- Organized conferences and reviewed journal submissions.
- Service to institute's administrative and hiring committees.

Postdoc and Visiting Positions¹

- University of Kentucky, USA Postdoc (2003-2005), Visiting Scientist (2020-21), Visiting Professor (multiple terms).
- University of Cambridge, UK Postdoc, DAMTP² (2005-07).
- Other institutions include: McGill, Stony Brook, Caltech, Penn State, etc.

¹Full details in "Academic Experience" (see accompanying PDF or click here: \nearrow).

²Department of Applied Mathematics & Theoretical Physics

Education

PhD in Theoretical Physics (String Theory) Harish-Chandra Research Institute, Prayagraj UP India	1997 – 2002
Master of Science (Physics) University of Calcutta, Kolkata WB India	1995 – 1997
Bachelor of Science (Physics) University of Calcutta, Kolkata WB India	1992 – 1995

Selected Research Talks¹

- Tempered Distribution Theory on a Lattice, Univ. of Kentucky, Jan 2025
- A Proposal for a Symmetry Preserving UV Cutoff, Miami 2024 Physics Conference, Dec 2024
- A Non-perturbative Approach to Self-force problem (Review), Univ. of Kentucky, May 2019
- Covariant String Bits, Chennai Strings meeting, Nov 2019
- Tubular Geometry in Loop Space, JINR, Russia, 2015