

Dr. Manoranjan Samal

Curriculum Vitae

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Personal Information

Date of Birth: 17th Feb 1990

Address: Department of Physics,
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Education

2013–2019 **Doctor of Philosophy (Ph.D.)**, *Indian Institute of Technology Kharagpur*,
Broad research area: String Theory

Thesis Title: Classical Strings in Deformed AdS: Finite Size Effect and Chaos

2012–2010 **Master of Science (M.Sc.)**, *National Institute of Technology Rourkela*,
Subject: Physics

2007–2010 **Bachelor of Science (B.Sc.)**, *Utkal University, Bhubaneswar*, Subject:
Physics (Hons.),

2005–2007 **Higher Secondary Education**, *Banki College, Banki*,

2005 **Secondary Education**, *Board of Secondary Education, Odisha*,

Achievements and Rewards

2012 **CSIR-UGC NET-JRF**,
All India Rank-236

2013 **Graduate Aptitude Test in Engineering (GATE)**,
All India Rank-242

2013 **Joint Entrance Screening Test**,
All India Rank-146

Computer Skills

Operating Systems: **Linux, Windows**
Languages: **Python, Mathematica, C++**
Document Formatting: **LaTeX, MS Office, Libre Office**

Work Experiences

July-2025– Jun-2025 **Lecturer in Physics**, *Banki Autonomous College, Banki*
May-2022– Jun-2025 **Lecturer in Physics**, *Rayagada Autonomous College, Rayagada*
Feb-2022– May-2022 **Associate Professor in Physics**, *Capital Engineering College, Khurdha*
2021–2022 **Faculty in Physics**, *OPS Mohavidyalaya, Dhenkanal*

School/ Conference/ Workshop attended

2018 **String Meeting**, NISER Bhubaneswar
2017 **Student Talks on Trending Topics in Theory**, Chennai Mathematical Institute
2017 **Advanced String School**, Puri
2016 **Research Scholar Day**, IIT Kharagpur
2015 **National String Meeting**, IISER Mohali
2015 **SERC Main School**, BITS Pilani Rajasthan
2014 **Indian Strings Meeting**, Puri
2014 **SERC Prep. School on Theoretical High Energy Physics**, BITS Pilani Hyderabad
2013 **National Strings Meeting**, IIT Kharagpur

List of Publications

- Rashmi R. Nayak, Kamal L. Panigrahi, **Manoranjan Samal**, Balbeer Singh, “Investigating (non)-integrability and pulsating string in D3-brane background”, Eur.Phys.J.C 85 (2025) 6, 670, arXiv: 2503.02548 [hep-th].
- Rashmi R. Nayak, Nibedita Padhi, **Manoranjan Samal**, “Pulsating string solution and stability in two parameter deformed background”, JHEP 12 (2024) 132, arXiv: 2406.17449 [hep-th].

- Kamal L. Panigrahi and **Manoranjan. Samal**, “Finite Size Effect from Classical Strings in deformed $\text{AdS}_3 \times \text{S}^3$ ”, **JHEP** **1809**, **162** (2018), arXiv:1807.04601
- Sorna Prava Barik, Kamal L. Panigrahi and **Manoranjan. Samal**, “Spinning pulsating strings in $(\text{AdS}_3 \times \text{S}^3)_\kappa$ ”, **Eur. Phys.J.C.** **78**, no. **4**, **280** (2018), arXiv:1801.04248
- Sorna Prava Barik, Kamal L. Paingrahi, **Manoranjan Samal**, “Perturbation of Pulsating Strings", **Eur. Phys. J. C.** **78**, no. **11**, **882** (2018), arXiv:1708.05202.
- Kamal L. Panigrahi, **Manoranjan Samal**, “Chaos in Classical String Dynamics in $\hat{\gamma}$ Deformed $\text{AdS}_5 \times T^{1,1}$ ", **PLB** **2016.08.021**, arXiv:1605:05638.
- Aritra Banerjee, Kamal L. Panigrahi, **Manoranjan Samal**, “A note on oscillating strings in $\text{AdS}_3 \times \text{S}^3$ with mixed three form fluxes", **JHEP** **1511**, **133**(2015), arXiv:1508.03430.
- Pabitra. Pradhan, Kamal L. Panigrahi, **Manoranjan Samal**, “Pulsating String in $(\text{AdS}_5 \times \text{S}^5)_\kappa$ ", **JHEP** **1503** **010**(2015), arXiv:1412.6936.

Research Statement

My research work is mainly based on the study of classical strings in the context of integrability, and AdS/CFT correspondence in $\text{AdS}_5 \times \text{S}^5$ and its integrable deformed backgrounds. My work also includes studying the world-sheet fluctuation of classical string. I am also interested in chaos and non-linear dynamics.