Dr. Binata Panda

Assistant Professor,
Department of Physics
Indian Institute of Technology (ISM) Dhanbad
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Academic Profile:

Bachelor Degree (+3 Science): 2002

- Institution: Ravenshaw Autonomous College, Cuttack, Odisha
- University: Utkal University
- First Class First in Physics Honors with Distinction, 88.38 % Marks, Best Graduate of the Year 2002

Postgraduate Degree (M.Sc): 2004

- University: Utkal University, Odisha, India
- o First class in Physics with Particle Physics specialization, 87.00 % Marks, First position (**Gold Medal**) in Utkal University

Doctorate Degree (PhD): 2012

- Institution: Institute of Physics, Bhubaneswar, India
- Research Area: String Theory
- Thesis Title: **Phenomenology with Magnetized D-Branes**

Academic Positions Held:

- **Assistant Professor, 2013 July-Continue**,
  - *Department of Applied Physics, Indian Institute of Technology (ISM), Dhanbad*
- **Post-doctoral Research Associate: (Sep. 2011 - 05.07.2013)**
  - *Institution: Harish-Chandra Research Institute, Allahabad, India*
  - **Prof. Ashoke Sen**, String Theory group
- **Visiting PhD student** at **CERN, Geneva (ERC MassTeV grant) (01.03.2009 - 31.08.2009).**
  - *CERN Theory Division, Geneva, Switzerland*
  - **Prof. Ignatios Antoniadis**, String-Phenomenology Group
- **Marie - Curie fellow at CERN, Geneva. (01.04.2007 - 30.09.2007)**
  - *CERN Theory Division, Geneva, Switzerland*
  - **Prof. Ignatios Antoniadis**, String-Phenomenology Group

Scholarships/Fellowships:

- Visiting PhD student Fellowship funded by European Research Commission MassTeV grant.
- Marie - Curie Early career research fellowship.

Awards and Honors:

- Awarded the "**Giulio Racah** " diploma in the International school of Subnuclear Physics", Erice, Sept. 2007.
- **The L. K. Panda award** from Institute of Physics, being first in the Post M.Sc. Course, 2005.
- **University Gold Medal in Physics**, Utkal University 2004, for securing the First position in the physics department of Utkal University in 2004.
- **Dr. Indumati Seshadri memorial Gold Medal**, being First in the physics department of Utkal University in 2004.

- **Lalit Kumar Panda memorial Gold Medal**, 2004.
- **Best Graduate of Ravenshaw University**, 2002.
- **Justice Harihar Mohapatra memorial award**, from the Rotary Club being the Best Graduate of Ravenshaw University, 2002.

Membership of Societies:

- Member of Indian String Theory Group, 2013 onwards

Reviewer:

- Reviewer of several journals of World Scientific.

Administrative Activity:

- Course coordinator of the courses Project & Dissertation, Seminar on dissertation, Viva-voce on dissertation, Comprehensive Viva for the 2-year M.Sc. And 5-year Int. M. Sc. Programme from 08/01/2014 to 06/05/2014
- In-charge, departmental stores. (Dec. 2014 – March 2020)
- Secretary, Departmental Advisory Committee (DAC) (Feb.2019-continue)
- Warden, Ruby and Rosaline hostel effective from 1st June 2016 – 3rd Sep 2018.
- Chief Warden, Opal Hostel from 3rd Sep 2018 – 31st March 2019.
- A member of the committee for Creche /Preschool in the Institute.
- Member from the department for "Centre for Cosmology and space applications", prepared the proposal.

Area of Expertise: Theoretical Physics

Current area of Research:

- String Theory
- Black hole Physics

Ongoing/Completed PhD and M.Sc. Students:

Continuing PhD Students:03

Post Graduate and B. Tech. Engg. Physics Students Supervised: 20

Invited Talks Delivered:

- "From particles to strings" Web-seminar-series, 2nd July 2020, Department of Physics, IIT (ISM) Dhanbad.
- **"Seeley-DeWitt Coefficients and Black hole Entropy",** International Conference on "New Trends in Field Theories" In BHU, Varanasi, Nov. 2018
- "From particles to strings" Refresher Programme in Physics Under FDC During May, 2017 at IIT (ISM) Dhanbad.
- "An Introduction to String Theory", Department of Applied Physics, IIT (ISM) Dhanbad, Aug. 2013
- "Logarithmic Corrections to Extremal Kerr-Newmann Blackhole Entropy", CQUeST, Sogang University, Seoul, Sept. 2012.
- "Logarithmic Corrections to Extremal Kerr-Newmann Blackhole Entropy ", Institute Lecture, IIT Patna, Aug. 2012.
- "Heat Kernel Expansion and Extremal Black Hole Entropy in Einstein Maxwell Theory", Institute of Physics, Bhubaneswar, India, February 2012.
- "Studying Blackhole Phase Transitions using Bragg-Williams Method", National Strings Meeting, Delhi, India, December 2011.
- "GUT Particle Spectrum and Interactions in Magnetized Branes", YITP, Kyoto University, Japan, March. 2011.

- “GUT Particle Spectrum and Interactions in Magnetized Branes", IPMU, Tokyo University, Japan, March. 2011.
- “GUT Particle Spectrum and Interactions in Magnetized Branes", KMI, Nagoya University, Japan, Feb. 2011.
- “GUT Particle Spectrum and Interactions in Magnetized Branes", National Strings Meeting 2010, IIT Bombay, India, Feb. 2010.
- “Fermion Wavefunctions in Magnetized branes", Alok Kumar Memorial Meeting", Institute Of Physics, Bhubaneswar, Jan. 2010.
- “GUT Particle Spectrum and Interactions in Magnetized Branes", Centre de Physique Theorique, Ecole Polytechnique, France, July 2009.
- “Model Building and Moduli Stabilization With Magnetized D-branes", International School of Subnuclear Physics, Erice, Italy, Sept. 2007.

Ongoing and Completed projects:

Sl. No. 1	**Details of the project**	
	Title	Heat Kernel expansion and Logarithmic Corrections to N =2 and N = 1 Black Hole Entropy: A One Loop Test of Quantum Gravity”
	Sanctioning authority	IIT(ISM) Dhanbad
	Duration	3 years
	Amount	8.9 lakh
	Status	completed
	Role	Principal Investigator
Sl. No. 2	**Details of the project**	
	Title	Supersymmetric Pati-Salam Model from Magnetized D-Branes
	Sanctioning authority	TEQIP-III
	Duration	2018-2020
	Amount	2 Lakh
	Status	Ongoing
	Role	Principal Investigator