Faculty Profile

1. Name: Biplab Raychaudhuri
2. Designation: Associate Professor
3. Email(s): biplabphy@visva-bharati.ac.in
4. Address: Department of Physics, Visva-Bharati University, Santiniketan, West Bengal 731235
5. Research ID (Google Scholar, ORCID ID, Scopus ID, WOS ID, Vidyan ID, Research Gate): biplabphy@visva-bharati.ac.in (ReserchGate)

6. Membership of Learned Societies:
   1. Visiting Associate of Inter-University Center for Astronomy and Astrophysics,
   2. Life member of Indian Association of General Relativity and Gravitation,
   3. Life member of Indian Physics Teachers' Association

7. Homepage (If any): None

8. Publication Summary:

   (a) No. of Research papers - 31
   (b) No. of Book Chapters - 1 (Book)
   (c) No. of Conference papers -
   (d) h-index -
   (e) i-10 index -

9. Date of Joining Visva-Bharati Service:
10. Education:

Degree	Year	University/Institution
Ph. D.	2006	North Bengal University
M. Sc. / M. Tech.	1994	North Bengal University
B. Sc.	1992	North Bengal University

11. Academic Positions held (in reverse chronological order)

Sl. No.	Positions held	Institution	Period
1	Lecturer --> Senior Lecturer	Surya Sen Mahavidyalaya Siliguri	2000-2009

12. Areas of Research: Foundations of General and Special Relativity, Gravitation, Astrophysics
13. Subject Specialization: Relativity
14. Courses Teach / Taught:

Undergraduate Courses	Mathematical Physics, Advanced Mathematical

	Physics
Postgraduate Courses	Quantum Mechanics, General Relativity, Astrophysics,
Ph.D. Course-work	Mathematical Physics

15. Research Guidance:

(a) No. of Postdoctoral students (Completed / Ongoing) None

(b) No. of Doctoral students (Completed / Ongoing) 3/1

(c) No. of M.Sc. Dissertations: 25

16. Research Collaboration (National / International): 2/0

17. Research Grants/Projects

Sl. No.	Project Title	PI/Co-PI	Funding Agency	Amount	Completed/Ongoing

20. Professional Recognition/ Award/ Prize/Fellowship

Sl. No.	Name of Award	Awarding Agency	Year

21. Books / Book Chapters

Sl. No.	Title	Name of Author(s)	Publisher	Year of Publication
1	Relativistic Sagnac Effect: Some conceptual questions and related issues	Biplab Raychaudhuri	VDM Verlag, Saarbrucken, Germay	2010

22. Detail of Patent received (if any)

Sl. No.	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Country

23. Talks Delivered at International / National Conferences/Seminars/Symposium:

1. *Acoustic Black holes, bounding values of the parameters and related relativistic limit*, an Invited talk at Exploring the Universe – 2025, A National conference on Relativistic Universe, 23–24 February, 2025
2. *Sagnac effect in Acoustic Black Hole*, an invited talk at National conference on Relativistic universe, 2024 (NCCRU-2024), 7–8 March, 2024.
3. *Dim light falls on this side of Relativity*, Invited talk at National Conference on Relativistic Astrophysics and Cosmology (NCPAC), ICARD Malda College, 29 February – 01 March, 2024.
4. *Paradoxes in Special Relativity*, invited talk presented at High Energy Cosmic Ray Research Centre, North Bengal University, 27 – 28 February, 2020.
5. *Glimpses of Einstein's Theory of Gravitation: From The Genesis to The Culmination*, Invited talk delivered at Introductory workshop on Astrophysics and Cosmology, jointly organized by IUCAA Resource Centre Kolkata and Department of Physics, Aliah University, 27–28 September, 2016.
6. *Some aspects of 2+1 dimensional gravity*, talk delivered at Mathematical Aspects of General Relativity, Salesian College, Siliguri, 22nd August 2014.
7. *Superradiance from Black holes: an assorted study*, Exploring the Cosmos - 2012: A National Conference on Relativistic Astrophysics and Astroparticle Physics jointly organized by IUCAA and High Energy Cosmic Ray Research Centre, North Bengal University, 2012.

24. List of Scientific Publications:

1. Aditya S. Mondal, Mahasweta Bhattacharya, Mayukh Pahari, Biplab Raychaudhuri, Rohit Ghosh et al. *JHEAP* 45 359-370 e-Print: 2409.20323 [astro-ph.HE] (2025)
2. Soumya Kanti Roy, Tanmoy Ghosh, B. Raychaudhuri and Aditya S. Mondal, *Eur. Phys. J. C*, 84:565 (2024).
3. B. Samanta, B. Raychaudhuri, F. Rahaman, Aditya S. Mondal, Subrato Sarkar, *Int. J. Th. Phys.*, 63:297, 2024.
4. Mahasweta Bhattacharya, Aditya S. Mondal, Mayukh Pahari, B. Raychaudhuri Rohit Ghosh and G. C. Dewangan, *MNRAS 534*, 634–644 (2024).
5. Arunava Bhadra,, Abhishek Chakraborty, Souvik Ghose and Biplab Raychaudhuri, *Phys. Scr.* 98 (2023) 125024, https://doi.org/10.1088/1402-4896/ad0f03.
6. Aditya S. Mondal, B. Raychaudhuri and G. C. Dewangan, *MNRAS* 527, 2362–2370 (2024), https://doi.org/10.1093/mnras/stad3326, Advance Access publication 2023 November 3
7. Aditya S. Mondal, B. Raychaudhuri and G. C. Dewangan, *MNRAS* 524, 5918-5928 (2023).
8. Farook Rahaman, Bidisha Samanta, Nayan Sarkar, Biplab Raychaudhuri and Banashree Sen, *Eur. Phys. J. C* (2023) 83:395 https://doi.org/10.1140/epjc/s10052-023-11456-4
9. Soumya Kanti Roy, B Raychaudhuri and Aditya S Mondal, *Phys. Scr.* 97 105004 (2022) https://doi.org/10.1088/1402-4896/ac91b1
10. Arunava Bhadra, Souvik Ghose, Biplab Raychaudhuri, *Eur. Phys. J. C* 82:649 (2022) https://doi.org/10.1140/epjc/s10052-022-10620-6 erratum: Eur. Phys. J. C (2022) 82:852 https://doi.org/10.1140/epjc/s10052-022-10748-5
11. Aditya S. Mondal, B. Raychaudhuri, G. C. Dewangan and Aru Beri, *MNRAS* 516, 1256–1262 (2022) https://doi.org/10.1093/mnras/stac2321
12. B. Raychaudhuri, S. Ghose and A. Bhadra, *The Physics Educator* 3(3), 2150012, (2021).
313. Aditya S. Mondal, B. Raychaudhuri and G. C. Dewangan, *MNRAS* 504, 1331–1339 (2021).
14. Aditya S. Mondal, G. C. Dewangan and B. Raychaudhuri, *MNRAS*, 494, 3177-3185 (2020).

15. Aditya S. Mondal, G. C. Dewangan and B. Raychaudhuri, *MNRAS* 487, 5441–5449 (2019).
16. Aditya S. Mondal, G. C. Dewangan, M. Pahari and B. Raychaudhuri, *MNRAS* 474, 2064–2072 (2018).
17. Aditya Sow Mondal, Mayukh Pahari, G. C. Dewangan, R. Misra, B. Raychaudhuri, *MNRAS* 466 4991–5002 (2017).
18. Aditya S. Mondal, G. C. Dewangan, M. Pahari, R. Misra, A. K. Kembhavi and B. Raychaudhuri, *MNRAS* 461, 1917–1926 (2016).
19. B. Raychaudhuri, *Mod. Phys. Lett. A* 293, 1450014, (2014).
20. B. Rachaudhuri, F. Rahaman and M. Kalam, *Mod. Phys. Lett. A* 291, 1450007, (2014).
21. B. Raychaudhuri, F. Rahaman, M. Kalam and A. Ghosh, *Mod.Phys.Lett.A* 24:1277-1287, (2009).
22. M. Kalam, F. Rahaman, A. Ghosh, B. Raychaudhuri, *Int. J. Mod. Phys. A* 24: 719-739, (2008).
23. F. Rahaman, R. Mandal, M. Kalam, B. Raychaudhuri, *Mod. Phys. Lett. A.*, 22(13) , 971-977, (2007).
24. F. Rahaman, M. Kalam, M. Sarker, A. Ghosh, B. Raychaudhuri, *Gen. Rel. Grav.* 39,145-151, (2007).
25. S. K. Ghosal, Biplab Raychaudhuri, Anjan Kumar Chowdhuri and Minakshi Sarker, *Found. Phys. Lett.* 17(5),pp. 457-477 (2004).
26. S. K. Ghosal, B. Raychaudhuri, A. K. Chowdhury, M. Sarker., *Found. Phys. Lett.*, 16(6),pp. 549-563, (2003).
27. S. K. Ghosal, Biplab Raychaudhuri, Anjan Kumar Chowdhuri and Minakshi Sarker, *Found. Phys*., 33(6), pp. 981-1001, (2003).
28. F.Rahaman, M.Kalam, S. Chakraborti, K.Maity and B. Raychaudhuri, *NBU Journal of mathematics*, 1(2), (2009).
29. Ritesh Ghosh, Gulab C. Dewangan, Labani Mallick and Biplab Raychaudhuri, *MNRAS* 479, 2464–2475 (2018) .
30. R. Ghosh, G. C. Dewangan and B. Raychaudhuri, *MNRAS* 456, 554–564 (2016).
31. Md. Shah Alam, Dipanjan Mukherjee, Aditya S. Mondal, Gulab C. Dewangan, Sanjay *Jhingan and Biplab Raychaudhuri, MNRAS 451, 3078–3088 (2015).*

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Last updated on (25/08/ 2025)