

3. Achievement & Awards:

- **TWAS-UNESCO Associateship (2007-2011, 2013-2017) : Visited Centre of Excellence CAS, Beijing and Kavli Institute of Theoretical Physics China (KITPC), Peoples Republic of China.**
- *Visiting Associate of Inter-University Centre for Astronomy & Astrophysics (IUCAA), Pune (August 01, 2006 onwards)*
- *Visiting Associate of Institute of Mathematical Sciences (IMSc), Chennai (2013-2016)*
- *Visiting Associate of S N Bose National Centre for Basic Sciences (SNBNCBS), Kolkata (2014 - 2017)*
- *Post-Doctoral Fellowship in South Africa (Aug-Oct, 1996).*
- *ISRO Fellowship (26.09.84-02.04.85)*
- **UGC NET Qualified (1984), UGC Junior Research Fellow and Senior Research Fellowship (1985-1990)**
- *UGC Minor Research Projects, NBU (2005, 2007, 2009-2011)*
- *National Scholarship (on B. Sc. (Hons.)) Result*
- *N F Rly Merit Scholarship (HSLC result)*
- **B. Sc. (Honours in Physics) University Silver Medal (University Rank : Second)**
- **M. Sc. (Physics) University Gold Medal & T.P Roy Memorial Medal (University Rank : First)**

4. Professional Experiences:

Research in Astrophysics and Theoretical Physics : 35 years

Post Graduate Faculty (Physics) : 21 years

- **Professor (29.01.2015-continuing)**
- *Associate Professor (29.01.2012 - 28.01.2015)*
- *Reader (29.01.2009-28.01.2012)*
- *Senior Lecturer, Physics Department, NBU (27.08.03-28.01.2009)*
- *Lecturer, Physics Department, NBU (27.08.1999 – 26.08.2003)*
- *Sr. Research Assistant at North Bengal University (02.04.1991 - 26.08.1999 *)*
During 1991-1996, also involved academically in Teaching PG courses of NBU
- **Assistant Regional Director (ARD), at IGNOU, Regional Office for West Bengal and Sikkim (Bikash Bhavan 4th Floor, Salt Lake, Kolkata) (*Work Experience one year On lien 1.10.1992-30.09.1993)**
- *Lecturer, Sikkim Govt. College, Sikkim (14.11.1990- 01.04.1991)*
- *Post Graduate Teacher, K. V. Khaprail, Sukna, (03.07.1990-13.11.1990)*

5. Other Experiences:

- *Dy. Director of Preparatory SERC School on Theoretical High Energy Physics (THEP) at NBU (2012)*
- *Organised National Level Seminar at NBU as Jt. Co-ordinator (March 2001) and as a Secretary of several seminars (FTAG-IV, Frontier's in Physics, Hundred Year Celebration of Einstein's three papers etc.) (Jan. 3-5, 2005), School on Recent Advances in Cosmology (Feb. 21-26, 2011).*
- *Celebrating Centenary Year of General Relativity, IAGRG Conference held at Raman Research Institute (March 18-20, 2015)*
- *Coordinator of IUCAA sponsored Winter school on General Relativity and its applications (Nov 2015)*
- *Organized a number of Public Outreach Program in collaboration with North Bengal Science Centre, Matigara, International Year of Astronomy (IYA-2009), Small Telescope Making Workshop for School Children (May 2009) was arranged at IRC, NBU including Popular Lectures delivered by eminent Astrophysicists : Profs. J. V. Narlikar, S. Ananthkrishnan, A. K. Kembhavi, Naresh Dadhich, Dipankar Bhattacharyya (IUCAA, Pune) and Dr. D. P. Duari (M P Birla Planetarium, Kolkata).*

- *Organized Refresher Course as a Course Coordinator (Jan. 4 - 24, 2012) in Physics and other in Inter-Disciplinary Subject Physics and Mathematics at UGC ASC, NBU (Jan 09-29, 2013)*
- *Honourary Dy. Director, ASC, NBU (June 2012-March 2014) : Organized a number of Orientation Programs (OP) of UGC ASC as a Coordinator during (2012-2014)*
- *Organized Group Monitoring Workshop : DST FAST track-NBU as Local Coordinator (Aug. 22-24, 2013)*
- *IUCAA Sponsored Workshop on X-Ray Astronomy - Coordinator, IRC, NBU (Mar. 23-25, 2013)*
- *Coordinator, Workshop on Disaster Management, UGC ASC, NBU (Mar. 29-30, 2013)*
- *Workshop on Astronomy DATA Analysis- IRC, NBU as Coordinator (Dec. 16-17, 2013)*
- *22nd West Bengal Science Congress (Feb 28-Mar 01, 2015) (as a Vice President)*
- *45th Annual Convocation of North Bengal University (26.02.2015) taken part as a Registrar (Officiating), North Bengal University*
- *Coordinator, IUCAA Resource Centre (18.06.2007-31.3.2019)*
- *Coordinator, IUCAA Centre for Astronomy Research & Development (ICARD) from 01.04.2019*
- ***Coordinator of one day Awareness Program on Importance of Intellectual Property Rights jointly organized by North Bengal University and PHD Chamber of Commerce and Industries, New Delhi (Nov. 11, 2019)***
- *Organized Workshop on Astrophysics and Astronomy for Women in India at Diamond Harbour Women's University, Sirsa (Jan 31 – Feb 01, 2020).*

6. Visited the Foreign University/Institutes for Research work :

- *International Centre for Theoretical Physics (ICTP), Trieste, ITALY participated Summer School in High Energy Physics and Cosmology (June 16-July 20, 1991).*
- *Visiting PDF at Zululand University, South Africa (Aug 11 - Oct 30, 1996)*
- *IAU 8th Asian Pacific Regional Meeting -2002, National Science Centre, Tokyo, Japan (July 2-5, 2002).*
- *Visiting Scientist at Zululand University and Kwa-Zulu Natal University, South Africa (June 2 – July 9, 2004).*
- *Visited Chinese Academy of Science (CAS) Beijing, China (June 5-17, 2006, Oct. 22-Dec. 15, 2007, June 02-July 25, 2014).*
- *Visited Institut d'Astrophysique de Paris, France (June 26-July 13, 2006)*
- *Short term visitor ICTP, Trieste, Italy (July 3-August 17, 2007, June 7-23, 2009)*
- *Visited University of Geneva, Geneva, Switzerland (Dec 13-18, 2016)*
- ***Visited University of Portsmouth, United Kingdom (Dec. 15-20. 2019)***

7. Administrative Experiences:

- ***Head, Department of Physics, NBU (Feb 9, 2010-Feb 8, 2012)***
- ***Deputy Director, UGC ASC, NBU (June 2012-March 31, 2015)***
- ***Registrar (Officiating) (April 3, 2014-May 29, 2014)***
- ***Registrar (Officiating) (August 2014-Feb 28, 2015)***
- ***Head, Department of Physics, NBU (Feb 8, 2016-Feb 7, 2018)***
- ***Dean (PG Faculty of Sciences, NBU) (July 2017-June 2020)***

8. Other information:

- **Chaired a Session at**
 - *Workshop on Strings and Cosmology (Oct 27-Nov. 1, 2004) at IUCAA, Pune*
 - *Primordial Features and Non-Gaussianities (PFNG-2010) at HRI, Allahabad (Dec. 15-18, 2010)*

- *Workshop Chair, Classical Gravity (including gravity Wave) at 27th Meeting of IAGRG, Hemwati Nandan Bahuguna Garhwal University, Srinagar (March 7-9, 2013)*

9. Collaborative work with

- *IUCAA, Pune,*
- *Lucknow University, UP*
- *Jadavpur University, Jadavpur*
- *IEST, Shibpur (formerly BESU)*
- *S N Bose National Centre for Basic Sciences, Kolkata*
- *Jamia Milia Islamia, New Delhi*
- *Raman Research Institute, Bengaluru*
- *Bangalore University, Bengaluru*
- *University of Zululand, South Africa*
- *University of Natal, South Africa*
- *Chinese Academy of Sciences, Beijing*
- *Massachusetts Institute of Technology (MIT), USA*

10. Different Committees at North Bengal University :

- a. President, NBU Teacher's Council (2015-16)*
- b. Jt. Secretary, NBU Teacher's Council (2011-13)*
- c. Member of Faculty Council for P.G. studies in Sciences, NBU*
- d. Member for the Board of Under-Graduate studies in Physics at NBU*
- e. Member of P.G. Board of studies in Physics at NBU*
- f. Member of Project Monitoring Unit (RUSA-2016) at NBU*
- g. Member of Development Committee of UNB*
- h. Consultation Program in the light of National Curriculum Framework 2005 – SCERT (WB) and Siliguri B. Ed. College,*
- i. Member of UG Board of Studies, Gour Banga University*
- j. Member of PG Syllabus Committee at NBU, Panchanan Barma University, Coochbehar*
- k. PG BOS Member, Physics Department, Sikkim University (2015-2018)*
- l. Member of PG Board of Studies, CPBU, Coochbehar*
- m. Member of Distance Education Monitoring Committee, NBU*
- n. NBU Executive Council Member (as a Dean (Science), 2017-2020)*
- o. NBU Court Member (HOD Physics 2010-12, 2016-18)*
- p. Dean (PG Faculty of Science) University of North Bengal (2017-2020)***

11. Research Projects:

Ongoing Project: 01

- ***DST-SERB Project entitled “ Theoretical and Observational Aspects of Compact Objects “ (2017-2020)***

Completed: 01

- ***Major Research Project***
 - *UGC Major Research Project on “Cosmologies, Dark matter & Dark Energy” (2013-2016) Funded by UGC, New Delhi (Report : [Front Page](#) and [Detail Report](#) F No.42-783/2013(SR))*
- **Minor Research Project Completed : 05**
- ***Reviewed Papers in Journals***
 - *Reviewer of Pramana, Int. Journal of Theoretical Physics, European Physical Journal C, New Astronomy, Classical and Quantum Gravity, Journal of Cosmology and Astroparticle Physics (JCAP).*
 - *Editorial Board Member of American Journal of Modern Physics,*
 - *Editorial Board Member of International Journal of Physics and Mathematical Sciences (JPMS)*

12. List of Publications :

| S. No. | Author(s) | Title | Name of Journal | Volume | Page | Year |
|--------|--|---|--|------------------|-------|------|
| 1. | B. C. Paul, D. P. Datta, S. Mukherjee | <i>Chaotic Inflationary Scenario in an Anisotropic Universe</i> | Mod. Phys. Letts. A | 1 | 149 | 1986 |
| 2. | B. C. Paul, D. P. Datta, S. Mukherjee | <i>Early Universe in Modified Starobinsky Model</i> | Mod. Phys. Letts. A | 3 | 843 | 1988 |
| 3. | B. C. Paul, S. Mukherjee | <i>Higher Dimensional Cosmology with Gauss-Bonnet terms</i> | Physics Teacher | 31 | 183 | 1989 |
| 4. | B. C. Paul | <i>Amader ViswaBramhanda</i> | NBU Physics alumni Association Souvenior | | | 1991 |
| 5. | B. C. Paul | <i>The Inflationary Models of the Early Universe</i> | North Bengal University (Ph. D.) | Thesis | | 1990 |
| 6. | B. C. Paul, S. Mukherjee | <i>Higher Dimensional Cosmology with Gauss-Bonnet terms and the Cosmological Constant Problem</i> | Phys. Rev. D | 42 | 2595 | 1990 |
| 7. | S. Mukherjee, B. C. Paul, A. Kshirsagar, N. Dadhich | <i>Gravitational Instantons with Scalar field</i> | Phys. Rev. D | 45 | 2772 | 1992 |
| 8. | B. C. Paul, S. Mukherjee, A. Beesham | <i>Wormholes in Higher Dimensions with Gauss-Bonnet terms</i> | Pramana, A Journal of Physics | 44 | 133 | 1995 |
| 9. | B. C. Paul, G. P. Singh, A. Beesham, S. Mukherjee | <i>Primordial Black Hole Pair Creation in R^2 - theory</i> | Procee. Of Hanno Rund Conference, Ed.: S. D. Maharaj | | 80-84 | 1996 |
| 10. | B. C. Paul, A. Beesham | <i>Higher Derivative theory with Viscosity</i> | 8th Marcel Grossmann Meeting (June 22-27, 1997)-ed. T. Piran and R. Ruffini | World Scientific | | 1997 |
| 11. | S. Mukherjee, B. C. Paul, N. Dadhich | <i>General Solutions for Relativistic Star</i> | Class. & Quantum Grav. | 14 | 3475 | 1997 |
| 12. | B. C. Paul, S. Mukherjee, A. Beesham | <i>Qualitative Analysis of Causal cosmological Models in (1 + 1) Dimensions</i> | University of Zululand Internal Report | | | 1998 |
| 13. | B. C. Paul, G. P. Singh, A. Beesham, S. Mukherjee | <i>Primordial Black Hole Pair Creation in R^2- theory</i> | Mod. Phys. Lett. D | 13 | 2289 | 1998 |
| 14. | B. C. Paul, S. Mukherjee, A. Beesham | <i>Viscous Cosmological Models in (1 + 1) Dimensions</i> | Int. J. Mod. Phys. D | 7 | 567 | 1998 |

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| 15. | B. C. Paul, S. Mukherjee, A. Beesham | Higher Derivative theory with Viscosity | Int. J. Mod. Phys. D | 7 | 499 | 1998 |
| 16. | B. C. Paul, S. Mukherjee, A. Beesham | Dissipative Cosmology in (1 + 1) Dimensions | NBU Science & Technology Review | 10 | 44-53 | 1999 |
| 17. | B. C. Paul | Exact Scalar field Cosmologies in a Higher Derivative theory | Pramana, A Journal of Physics | 53 | 853 | 1999 |
| 18 | B. C. Paul, S. Mukherjee | Open Inflation in Higher Derivative Theory | THE UNIVERSE : Visions and Perspectives - eds. N. K. Dadhich and A. K. Kembhavi | Chap- 23 | 253-260 | 2000 |
| 19. | B. C. Paul | Probability for Primordial Black Holes in a Higher Dimensional Universe | Phys. Rev. D | 61 | 024032 | 2000 |
| 20. | B. C. Paul | Viscous Cosmologies with extra dimensions | Phys. Rev. D | 64 | 027302 | 2001 |
| 21. | B. C. Paul | On the mass of a uniform density star in Higher Dimensions | Classical and Quantum Gravity | 18 | 2637 | 2001 |
| 22. | S. Chakraborty, B. C. Paul | Inflation in Bianchi models and Cosmic no-hair theorem | Physical Review D | 64 | 127502 | 2001 |
| 23. | B. C. Paul | Inflationary Cosmologies in an anisotropic Brane world | Phys. Rev. D | 64 | 124001 | 2001 |
| 24. | B. C. Paul , S. Mukherjee, R. Tavakol | Instantons in Higher Derivative theories | Procee. IAU 8th Asian Pacific Regional Meeting eds. S. Tkeuchi, J Hearnshu, T. Hanwa | Vol : II | 313 | 2002 |
| 25. | B. C. Paul, A. Saha | Probability for Primordial black holes in Higher derivative theories | Int. J. Mod. Phys. D | 11 | 493 | 2002 |
| 26. | B. C. Paul, S. Mukherjee, R. Tavakol | Singular Instantons in higher derivative theories | Phys. Rev. D | 65 | 064020 | 2002 |
| 27. | B. C. Paul, S. Mukherjee | Gravitational Instantons – Recent developments | Mod. Phys. Letts. A | 17 | 1123 | 2002 |
| 28. | B. C. Paul, S. Chakraborty | Inflaton field and Primordial black hole | Int. J. Mod. Phys. D | 11 | 1435 | 2002 |
| 29. | B. C. Paul | Inflation in Bianchi Models and the Cosmic no hair theorem in Brane world | Phys. Rev. D | 66 | 124019 | 2002 |
| 30. | B. C. Paul | Chaotic Inflationary Universe on Brane | Phys. Rev. D | 68 | 127501 | 2003 |
| 31. | B. C. Paul, M. Sami | Note on Inflation with a Tachyonic rolling on the Gauss-Bonnet Brane | Phys. Rev. D | 70 | 027301 | 2004 |
| 32. | B. C. Paul | Relativistic Star solution in Higher dimensions | Int. J. Mod. Phys. D | 13 | 229 | 2004 |

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|-----|--|--|---|------------------|------------|------|
| 33. | S. Mukherjee, B. C. Paul, S. D. Maharaj, A. Beesham | Emergent Universe in Starobinsky Model | ArXiv: gr-qc/0506103 | | | 2005 |
| 34. | B. C. Paul | Chaotic Inflationary Scenario On Brane | Procee. International Conference on Contem. Issues in Nuclear and Particle Physics, Jadavpur University | Feb 4-7, 2005 | | 2005 |
| 35. | B. C. Paul, A. Beesham | Power-law Inflation and the Cosmic no hair theorem in Brane world | Int. J. Mod. Phys. D | 14 | 893 | 2005 |
| 36. | B. C. Paul, R. Tikekar | A Core Envelope model of Compact stars | Gravitation & Cosmology | 11 | 244 | 2005 |
| 37. | D. Paul, B. C. Paul | Probability for a Primordial Black hole Pair in 1/R-Gravity | Phys. Rev. D | 72 | 0640 12 | 2005 |
| 38. | B. C. Paul, Dilip Paul | Inflationary Universe with Tachyon field | Int. J. Mod. Phys. D | 14 | 1831 | 2005 |
| 39. | B. C. Paul | An Overview of Cosmology | Proceeding of UGC Sponsored State Level Seminar on IYP : Approaches & Understanding March 26-27,2006 | | | 2006 |
| 40. | S. Mukherjee, B. C. Paul, N. K. Dadhich, S. D. Maharaj, A. Beesham, | Emergent Universe with Exotic Matter | Class and Quantum Grav. | 23 | 6927 | 2006 |
| 41. | B. C. Paul | Chaotic Inflationary Universe on Brane | Procee. Of IAGR (2006)- ed. R. Bali. | | | 2006 |
| 42. | B. C. Paul, D. Paul | Probability of Primordial Black Hole Pair Creation in a Modified Gravitational theory | Physical Review D | 74 | 0840 15 | 2006 |
| 43. | P. S. Debnath, B. C. Paul | Cosmological Models with variable Gravitational and Cosmological constant in R^2 -Gravity | Int. J. Mod. Phys. D | 15 | 189 | 2006 |
| 44. | B C Paul, P. Thakur, A. Saha | Holographic Dark Energy Models with Generalized Chaplygin Gas | ICTP :Report IC/IR/2007/006. | | | 2007 |
| 45. | P. S. Debnath, B. C. Paul, A. Beesham | Viscous cosmologies with variable Lambda in higher derivative gravity | Phys. Rev. D | 76 | 1235 05 | 2007 |
| 46. | B. C. Paul, | Modified Chaplygin Gas as a | arXiv:0809.3491 | | | 2008 |

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|-----|--|--|---|---------------|---------------|------|
| | P. Thakur, A. Saha | Scalar field and Holographic Dark Energy Model | | | | |
| 47. | B. C. Paul | Effect of Higher Dimensions on Compact Stars | Procee. Workshop on Physics of the Warped Extra Dimensions-ed. S. Kar | | 155- 159 | 2008 |
| 48. | B. C. Paul , A. Saha, S. Ghose | Probability for Primordial Black Holes in a Multidimensional Universe with non-linear scalar curvature terms | Phys. Rev. D | 78 | 0840 07 | 2008 |
| 49. | B. C. Paul , Dilip Paul | Anisotropic Bianchi-I Universe with Phantom field | PRAMANA-Journal of Physics, | 71 | 1247 | 2008 |
| 50. | D. Paul, B.C. Paul , X. H. Meng | Inflation with Hyperbolic Potential in the Brane-world model | Pramana Journal of Physics | 72 | 903- 914. | 2009 |
| 51. | B. C. Paul , P. S. Debnath, S. Ghose | Accelerating Universe in Modified Theories of Gravity | Phys. Rev. D | 79 | 0835 34 | 2009 |
| 52. | P. Thakur, S. Ghose, B. C. Paul | Modified Chaplygin Gas and constraints on its B parameter from Cold Dark Matter and Unified Dark Matter Energy cosmological Models | Mon. Not. Roy. Astron. Soc. (MNRAS) | 397 | 1935- 1939 | 2009 |
| 53. | P. K. Chattopadhyay, B. C. Paul | Relativistic Star Solutions in Higher Dimensional Pseudo- spheroidal Space-time | Pramana, Journal of Physics | 74 | 513 | 2010 |
| 54. | B. C. Paul , S. Ghose | Emergent Universe Scenario in the Einstein-Gauss-Bonnet Gravity with Dilaton | Gen. Rel. Grav. | 42 | 795 | 2010 |
| 55. | B. C. Paul , P. Thakur, S. Ghose | Constraints on Exotic Matter needed for An Emergent Universe | Mon. Not. Roy. Astron. Soc. | 407 | 415- 419. | 2010 |
| 56. | B. C. Paul , A. Saha, | Gravitational Instantons in R4 Gravity for Open Inflation | Class. Quantum Grav. | 27 | 2150 04 | 2010 |
| 57. | S. Ghose, B. C. Paul | On the Viability of some Emergent universe models | Exploring the Cosmos - ed. A. Bhadra, LAMBERT Academic Pub, 2011, (ISBN : 978-3-8443-9165-7, 2011) | | | 2011 |
| 58. | B. C. Paul | Holographic Dark Energy Models with Chaplygin Gas | Cosmology/Book 1 ISBN 978-953-307-423-8 (2011) | Chapter- V | | 2011 |
| 59. | B. C. Paul , S. Ghose, P. Thakur | Emergent Universe from A composition of Matter, Exotic Matter and Dark Energy | Monthly Notice of the Royal Astronomical Society | 413 | 686- 690 | 2011 |
| 60. | B.C. Paul , P. K. Chattopadhyay, S. Karmakar, R. Tikekar | Relativistic Strange Star with Anisotropy | Mod. Phys. Lett. A | 26 | 575- 587 | 2011 |
| 61. | B C Paul , P. K. Chattopahyay | Relativistic Anisotropic Strange Stars in Pseudo spheroidal space-time | 11th APRIM, 2011 NARIT Conference Series Vol. 1 eds. S. Komonjinda, Y. | Vol-1 | 258- 264 | 2012 |

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|-----|---|---|--|-----|-----------|------|
| | | | Kovalev, S. Ruffolo | | | |
| 62. | P. K. Chattopahyay, B. C. Paul | <i>Relativistic Strange Stars with anisotropy and B-parameter in Pseudo-spheroidal Space-Time</i> | Neutron Stars and Pulsars : Challenges & Opportunities after 80 years, Procee. IAU symposium No. 291 (2012) | 291 | 362-364 | 2012 |
| 63. | B. C. Paul, P. Thakur, A. Saha | <i>Modified Chaplygin Gas in Horava-Lifshitz Gravity and constraints on its B – parameter</i> | Phys. Rev. D | 85 | 0240-39 | 2012 |
| 64. | P. K. Chattopadhyay, Rumi Deb, B. C. Paul | <i>Relativistic Solution for a Class of Static Compact Charged Star in Pseudo Spheroidal space-time</i> | Int. J. Mod. Phys. D | 21 | 1250-071 | 2012 |
| 65. | Rumi Deb, B. C. Paul, R. Tikekar | <i>Relativistic Models of A Class of Compact Objects</i> | Pramana, J of Physics | 79 | 211 | 2012 |
| 66. | S. Ghose, P. Thakur, B. C. Paul | <i>Observational Constraints on the Model Parameters of a Class of Emergent Universe</i> | Monthly Notice of the Royal Astronomical Society (MNRAS) . | 421 | 20-24 | 2012 |
| 67. | B. C. Paul , P. Thakur, M. M. Verma | <i>Observational Constraints on Modified Chaplygin Gas in Horava-Lifshitz Gravity with dark radiation</i> | Pramana J. Physics | 81 | 691-718 | 2013 |
| 68. | P. Pradhan, C. Maitra, Biswajit Paul and B. C. Paul | <i>Revisiting SWJ2000.6+3210 : A persistent Be X-ray pulsar</i> | Mon. Not. Roy. Astron. Soc. | 436 | 945-952 | 2013 |
| 69. | B. C. Paul , P. Thakur | <i>Observational Constraints on Modified Chaplygin Gas from Cosmic Growth</i> | Jour. Cosmo. Astropart. Phys. (JCAP) | 11 | 052 | 2013 |
| 70. | Bikash Chandra Paul, Rumi Deb | <i>Relativistic solutions of anisotropic compact objects</i> | Astrophys. Space Sci. | 354 | 421-430 | 2014 |
| 71. | S. Ghose, A. Saha, B. C. Paul | <i>Holographic Dark Energy with Generalized Chaplygin Gas in Higher Dimensions</i> | International Journal of Modern Physics D | 23 | 1450-015 | 2014 |
| 72. | R. Kar, T. Goswami, B. C. Paul, A. Misra | <i>On Magnon mediated Cooper pair formation in Ferromagnetic Superconductors</i> | AIP Advances | 4 | 0871-26 | 2014 |
| 73. | Pragati Pradhan, C. Maitra, Biswajit Paul, Nazma Islam, B. C. Paul | <i>Variations in the Pulsation and spectral characteristics of OAO 1657-415</i> | Monthly Notice of the Royal Astronomical Society (MNRAS) | 442 | 2691-2700 | 2014 |
| 74. | B. C. Paul | <i>Dark Matter and Dark Energy in the Universe</i> | Bibechana | 11 | 8-16 | 2014 |
| 75. | P. K. Chattopadhyay, R. Deb, B C Paul | <i>Relativistic Charged Star Solutions in Higher Dimensions</i> | International J. Theor. Physics | 53 | 1666-1684 | 2014 |
| 76. | B. C. Paul, | <i>Relativistic anisotropic star</i> | Astrophys. Space. Sci. | 356 | 327- | 2015 |

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|-----|---|--|--|--------|---------------|------|
| | P. K. Chattopadhyay, S. Karmakar | and its maximum mass in higher dimensions | | | 337 | |
| 77. | P. Pradhan, B. Paul, H. Raichur, B. C. Paul | Variability of pulse profile of a rotation powered pulsar PSR B1509-58 | Non-linear Dynamics and its application, published by Book Center (ISBN:978- 81-921612-6-6) | | 240- 247 | 2015 |
| 78. | Pragati Pradhan, Biswajit Paul, HarshaRaichur, B.C. Paul | Variations of the Harmonic Components of the X-ray Pulse profile of PSR B1509-58 | Research in Astronomy & Astrophysics | 15 | 28-36 | 2015 |
| 79. | D. Panigrahi, B. C. Paul , S. Chatterjee | Constraining Modified Chaplygin Gas Parameters | Gravitation and Cosmology, | 21 | 83- 92 | 2015 |
| 80. | Ujjal Debnath , Bikash Chandra Paul | Evolution of primordial black hole in $f(T)$ gravity with modified Chaplygin gas | Astrophys. Space Sci. | 355 | 147- 153 | 2015 |
| 81. | B. C. Paul and A. S. Majumdar | Emergent Universe with Interacting fluids and Generalized Second Law of Thermodynamics | Classical and Quantum Gravity | 32 | 1150 01 | 2015 |
| 82. | Pragati Pradhan, Biswajit Paul, B. C. Paul , Enrico Bozzo, Tomaso M. Belloni | Is 4U 0114+65 an Eclipsing HMXB ? | Mon. Not. Roy. Astron. Soc. | 454 | 4467 -4475 | 2015 |
| 83. | B. C. Paul | An Introduction to Astronomical Data Analysis | Edited Book : Scholars's Press ISBN 978-3-639- 85990-4 | 1-177 | 1-177 | 2015 |
| 84. | B. C. Paul , S. Ghosh | Estimation of Observational Constraints of the parameters in Emergent Universe Model | An Introduction to Astronomical Data Analysis : ed.- B. C. Paul | Chap-5 | 96- 114 | 2015 |
| 85. | B. C. Paul , P. Thakur | Observational Constraints on Chaplygin Gas: A Review | An Introduction to Astronomical Data Analysis: ed. -B. C. Paul | Chap-7 | 149- 177 | 2015 |
| 86. | P. K. Chattopadhyay and B. C. Paul | Density dependent B parameter of relativistic stars with anisotropy in Pseudo- spheroidal spacetime | Astrophys. Space Sci. | 361 | 145 | 2016 |
| 87. | S. Das, R. Sharma, B. C. Paul , R. Deb | Dissipative Gravitational Collapse of an (an)isotropic Star | Astrophys. & Space Sci. | 361 | 1 | 2016 |
| 88. | P. S. Debnath and B. C. Paul | Viscous Cosmologies with Modified Chaplygin Gas | Int. Journal of Applied Physics (ISSN 2350-0301) | 3 | Issue: 2 | 2016 |
| 89. | B. C. Paul , P. Thakur and A. Saha | Observational Constraints on Extended Chaplygin gas Cosmologies | Pramana, A Journal of Physics | 89 | 29 | 2017 |
| 90. | B. C. Paul and P. Thakur | Observational Constraints on EoS parameter of Emergent Universe | Astrophys. Space Sci. (2016) | 362 | 73 | 2017 |

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|------|--|---|---|-----|-------------------|------|
| 91. | <i>P. S. Debnath and B. C. Paul</i> | <i>Emergent Universe with Dissipative effects</i> | Mod. Phys. Letts. A | 32 | 1750 216 | 2017 |
| 92. | <i>Rakesh Kar, B. C. Paul, Anirban Misra</i> | <i>Unconventional Superconductivity in iron pnictides : Magnon Mediated pairing</i> | Physica C : Superconductivity and its applications | 545 | 18-25 | 2018 |
| 93. | <i>B. C. Paul and A. S. Majumdar</i> | <i>Emergent Universe with wormholes in massive gravity</i> | Class. & Quantum Gravity | 35 | 0650 01 | 2018 |
| 94. | <i>B. C. Paul and Sagar Dey</i> | <i>Relativistic star in higher dimensions with Finch and Skea Geometry</i> | Astrophys. Space Sci. | 363 | 11 | 2018 |
| 95. | <i>Binay Rai, P. Pradhan, B. C. Paul</i> | <i>A report on Type II X-ray bursts from SMC X-1</i> | Research in Astronomy and Astrophysics | 18 | 148 | 2018 |
| 96. | <i>P. S. Debnath, A. Beesham and B. C. Paul</i> | <i>Non-Linear viscosity in Brane-world cosmology with a Gauss-Bonnet term</i> | Class. & Quantum Gravity | 35 | 1150 10 | 2018 |
| 97. | <i>A. Chanda, S. Dey and B. C. Paul</i> | <i>Anisotropic Compact Objects in $F(T)$ gravity with Finch-Skea Geometry</i> | Eur. Phys. J., C | 79 | 502 | 2019 |
| 98. | <i>B. C. Paul, A. Chanda</i> | <i>Observational constraints on Emergent Universe model with non-linear fluid</i> | General Relativity and Gravitation | 51 | 71 (1- 17) | 2019 |
| 99. | <i>Rikpratik Sengupta, Prasenjit Paul, Bikash Chandra Paul and Saibal Ray</i> | <i>Inflation in anisotropic brane universe using tachyon field</i> | Int. Journal of Modern Physics D | 28 | 1941 010 | 2019 |
| 100. | <i>Binay Rai and Bikash Chandra Paul</i> | <i>NUSTAR and Swift observations of AMXP Swift J1756.9–2508 during its 2018 Outburst</i> | Monthly Notice of the Royal Astronomical Society | 489 | 5858- 5865 | 2019 |
| 101. | <i>S Dey and B C Paul</i> | <i>Higher Dimensional Charged Compact Objects in Finch-Skea Geometry</i> | Classical and Quantum Gravity | 37 | 0750 17 | 2020 |
| 102. | <i>B. C. Paul, S. D. Maharaj and A. Beesham</i> | <i>Emergent Universe Scenario in Modified Gauss-Bonnet Gravity</i> | Classical and Quantum Gravity | | | 2020 |
| 103. | <i>Binay Rai and B. C. Paul</i> | <i>Spectral analysis of BeXB 2S 1417-624 using Nustar and swift observations</i> | MNRAS | | MN-20- 0521-MJ | 2020 |
| 104. | <i>P. S. Debnath, B. C. Paul</i> | <i>Observational constraints of emergent universe in $f(R, T)$ gravity with bulk viscosity</i> | Int. Journal of Geo. Methods in Modern Physics | | S-19- 00460 | 2020 |
| 105. | <i>P. Pradhan (MIT, USA), B. Paul (RRI), E. Bozzo (Univ. of Geneva), C. Maitra(Germany) and B. C. Paul</i> | <i>Comprehensive broadband study of accreting neutron stars with Suzaku</i> | Mon. Notice Royal Astronomical Society (MNRAS) | | MN-20- 0651-M | 2020 |

II. Popular Science Lecture/Article :

1. *On Stellar Evolution and on Solar Eclipse (August 1999) at North Bengal Science Centre, Organised by NBSC Siliguri on 11.8.99.*
2. *AmaderViswaBramhanda – B. C. Paul, NBU Physics Alumni Association Souvenior 1991.*
3. *50 Years of Space Exploration – Matigara Science Centre, Siliguri (Oct. 4, 2007).*
4. *Mystery of the Universe and LHC - Matigara Science Centre (Dec , 2008)*
5. *ViswaBramhanda O LHC - SuryaSenMahaVidyalaya ,Siliguri (Dec 19, 2008)*
6. *On Non-Conventional Energy Sources – Nature from Crisis to cure at ABN Seal College, (March 8-9, 2008)*
7. *Satellite Communication : A giant leap for mankind – NBSC, Siliguri (16.2.2010)*
8. *Past and Present of Indian Astronomy -at North Bengal Science Centre, Matigara on Feb. 29, 2012*
9. *Past and Present of Indian Astronomy- OP at UGC HRDC, NBU (2013,2014, 2015)*
10. *MYSTERY of the universe & GOD PARTICLE, Don Bosco school, Siliguri (Aug 07, 2015)*
11. *Why HIGG'S BOSON or GOD PARTICLE? - Physics Departmentt, Bagdogra College on Dec. 03,2015.*
12. *Space Exploration in India – OP UGC, HRDC, NBU 24 Aug, 2015*
13. *Counselling : Need of the Hours – Lecture at UGC HRDC, NBU on Feb. 04,2016*
14. *Gravitational Wave-A New Window in Astronomy - Siliguri Institute of Technology (SIT), Sukna, Post National Science-Day Lecture on March 17,2016*

III. Invited Talks Presented :

15. *Higher Dimensional Cosmology with Gauss-Bonnet terms and the Cosmological Constant Problem - at the University of Durban, SOUTH AFRICA , (1996).*
16. *Dissipative Cosmology in $(1 + 1)$ Dimensions - at the NBU-IUCAA Workshop on Inhomogeneous Cosmological Models and Seminar on Conceptual Problems in Relativity & Cosmology at NBU (Nov 14-18, 1996).*
17. *Gravitational Instanton with scalar field – at the XVI th IAGRG Conference held at Sardar Patel University, Gujarat (Dec 10-11, 1991).*
18. *Cosmology in Higher Dimensions – at Centre for Theoretical Studies at IIT, Kharagpur (Feb 20, 2001)*
19. *Cosmological Constant Problem – at Introductory School on Astronomy & Astrophysics held at Siliguri College, Siliguri (Nov. 16-20, 2002).*

20. *Compact Stars in Higher Dimensions- Seminar on Compact Star and Quark Gluon Plasma at NBU (18 August 2003).*
21. *Tachyonic Potential in Higher Derivative Theories- Workshop on Field Theoretic Aspects of Gravity (FTAG-IV) held at Pelling (March 2-6, 2004).*
22. *On Dark Matter- Zululand University, South Africa (June 22, 2004).*
23. *Compact Stars in higher dimensions – Univ. of Kwa-Zulu Natal, Durban (June 25, 2004).*
24. *Emergent Universe Scenario - Workshop on Strings and Cosmology at ITP and KITPC, Peoples Republic of China (Nov. 13, 2007).*
25. *"Emergent Universe : Theory and Observations"- ACRU/Mathematics seminar University of KwaZulu-Natal (Westville Campus) South Africa - Oct. 12, 2017*

IV. Papers Presented in Seminar/Conference :

26. *Inflationary Universe Scenario in an Anisotropic Kantowski-Sachs Model – UGC National Seminar on Transport problem & Cosmology at Department of Mathematics, NBU (Oct 7-11,1985).*
27. *Chaotic Inflationary Scenario in an Anisotropic Universe – IPS National Symposium on Particle Physics & Cosmology, Abs. No. 23 (page 31-33) (Mar 10- 13, 1986) at IACS, Jadavpur.*
28. *Anisotropy in the Starobinsky Inflationary Scenario Procee. Of VIII th HEP symposium TF-1, p-41, Vol.I(Nov. 11-17, 1986) held at SINP, Calcutta.*
29. *Higher Dimensional Cosmology with Gauss-Bonnet terms XV th IAGRG Coonference and National Seminar on Quantum Gravity & Cosmology, Abs. No. EU2 (p-12) (Nov. 4-7, 1989) at NBU.*
30. *Wormholes with Gauss-Bonnet terms in a Higher Dimensional theory – XVI th Conference of IAGRG, Abs. No. 20 (Dec 10-11, 1991) at Sardar Patel University, Gujarat.*
31. *Wormholes in Higher Dimensions With Gauss-Bonnet terms Procee.of the Xth DAE High Energy Physics Symposium, Abs. No. T8, (p-114) (Dec 26-31, 1992) at TIFR, Bombay.*
32. *Primordial Black Holes in Higher Derivative gravity -Workshop on Inhomogeneous Cosmological Models held at NBU (Dec 14-18, 1996).*
33. *Causal Thermodynamics in Mann's theory GR-15, Abs. No. 67 (p-133) IUCAA, Pune (Dec 16-21, 1997).*
34. *Solution for a class of Spherically symmetric Relativistic Star - GR-15, Abs. No. 23 (p -153) IUCAA, Pune (Dec 16-21, 1997).*
35. *Higher Derivative theory with Viscosity - GR-15, Abs. No. 16 (p:186-187) IUCAA, Pune (Dec 16-21, 1997).*
36. *An overview on Higher Dimensional Cosmology with Gauss-Bonnet terms and the Cosmological Constant Problem - Invited talk presented at the Orientation Meeting on*

- Exact Solutions*, D D U Gorakhpur University, Gorakhpur (Jan 18-19, 1999).
37. *Quantum Creation of Open Universe*, B. C. Paul and S. Mukherjee, *Procee. of ICGC held at IIT, Kharagpur (Mentioned in Pramana 55 (2000) 606.*
 38. *Probability of Primordial black holes pair creation in the universe ($D = 4, D > 4$) Workshop on Topic in General Relativity at IUCAA, Pune (Oct. 12-20, 2000).*
 39. *Primordial black holes pair in higher dimensional universe – Conceptual Issues in Relativity, Cosmology and Astrophysics (Mar 28-30, 2001), NBU*
 40. *Quantum creation of open universe Regional Workshop on General Relativity, Kalyani University (Nov 21-22, 2001).*
 41. *Singular Instantons in Higher derivative theories IAU 8th Asian Pacific regional Meeting at National Science Centre, Tokyo, Japan (July 2- 5, 2002).*
 42. *Cosmic No hair theorem and Brane world – IAGRG Meeting held at IUCAA (Dec 10-14, 2002).*
 43. *Chaotic Inflationary Universe in a brane world model – Vth International Conference on Gravitation and Cosmology (ICGC-2004) (Jan 5-10, 2004) at Kochi, Kerala.*
 44. *Brane and Chaotic Inflationary Universe Scenario 23rd Conf. Of IAGRG and Symp. On Recent Trends in General Relativity, Cosmology and Astrophysics (Dec. 7-10, 2004) at Rajasthan University, Rajasthan.*
 45. *Probability of primordial black hole pair creation in modified gravity - Physics in the trails of Einstein (Nov. 21-22, 2005) SINP, Kolkata.*
 46. *Chaotic Inflationary Scenario On Brane - International Conference on Contem. Issues in Nuclear and Particle Physics (Feb 4-7, 2005) at Jadavpur University, Kolkata.*
 47. *Chaotic Inflationary Universe on Brane - Talk presented at 22nd IAP Colloquium : Inflation+25 years at Institut d'Astrophysique de Paris, France (June 26-30, 2006).*
 48. *On Holographic Dark Energy Models -ICGC at IUCAA, Pune (Dec 17-21, 2007).*
 49. *Emergent Universe Scenario in the Einstein-Gauss-Bonnet Gravity with Dilaton -25th IAGRG at SINP Kolkata (Jan 28-31, 2008)*
 50. *Probability for Primordial Black Holes in Multidimensional Universe with non-linear scalar curvature terms - 25th IAGRG at SINP Kolkata (Jan 28-31, 2008).*
 51. *Emergent Universe : Theory and Observations – Workshop on Astronomy :Theory Observations and Interpretation (April 5-9, 2010) at NBU*
 52. *Lecture-1: Basic Cosmology, Lecture-2: Dark Matter and Dark energy in the School on Recent Advances in Cosmology at NBU (Feb. 21-26, 2011)*
 53. *On the viability of some Emergent Universe models, S. Ghose and B. C. Paul, HECRC Seminar on Relativistic Astrophysics & Astroparticle Physics*
 54. *Emergent Universe : Theory and Observations – Invited Lecture at IISc, Bangalore (April 27, 2010), AAPCOS at Hotel Mayfair (SINP) on March 7-12, 2012.*
 55. *Womens in Science and Technology- Refresher course in Women and social Justice (May 2-22, 2013) at NBU UGC ASC May 10, 2013.*
 56. *Relativistic Models of Compact Objects with Charge-14.01.2015, CTP, Jamia Millia Islamia, New Delhi*
 57. *Creation of Emergent Universe with Wormhole – Oral presentation in 28th Texas Symposium on Relativistic Astrophysics (Dec. 13-18, 2015) at Geneva, Switzerland*
 58. *Cosmology : The past and the present Universe- AAPCOS-2015 at Saha Institute for Nuclear Physics, Kolkata (Oct. 14-15, 2015)*

59. *Creation of Emergent Universe with Wormhole- 28th Texas Symposium at University of Geneva, Switzerland (Dec. 13-18, 2015)*
60. *Emergent Universe : Theory and Observations- Invited talk at Introductory Workshop on Astrophysics & Cosmology at Aliah University (Sept. 27-28, 2016)*
61. *Emergent Universe- A brief report – Current development in Quantum Field Theory & Gravity On 125th Birth Anniversary of S N Bose, (2018)*
62. *Observed Universe and Dark Matter and Dark Energy -First IUCAA Resource Centre and CPBU joint Program October 8-9 (2018)*
63. *Workshop on Astronomy and Astrophysics (March 29-31, 2019) IUCAA Pune and Sikkim University Joint Program*
64. *Emergent Universe- Present Status – Cosmology- The Next Decade Workshop (Jan 22-25, 2019) at Inter National Centre for Theoretical Science (ICTS-TIFR) , Bangalore*
65. *Emergent Universe via Wormhole – 30th Texas Symposium at University of Portsmouth, UK (Dec. 14-20, 2019).*
66. *Gravitational Wave- A new Window in Astronomy, Exploring Cosmos, HECRC, NBU (Feb. 28, 2020)*

Dr. Bikash Chandra Paul, Professor, Physics Department, NBU