Curriculum Vitae (Details)

Name : Dr. Ujjal Debnath

Father's Name : Kalidas Debnath

Designation : Associate Professor,

Affiliation: : Department of Mathematics,
Indian Institute of Engineering Science and Technology (IIEST), Shibpur,
(Formerly, Bengal Engineering and Science University, Shibpur)
Howrah-711 103, India.

Permanent Address : P.O.- Prafullanagar, P.S.- Ashokenagar, Dist.- 24 Parganas (N),
Pin: 743268, West Bengal, India.

Present Address : C/289, Bapujinagar, Jadavpur, Kolkata-700 092, India.

Age : 49 Years

Sex : Male

Nationality : Indian

Category : General

Religion : Hinduism

E-mail Address : ujjaldebnath@gmail.com , ujjal@math.iiests.ac.in

Academic Qualification :

Examination Passed	Subject / Specialization/Title of thesis	Board / Univ.	Year of Passing	Div/Class	% of Marks
Secondary / 10th Standard	Beng., Eng., Math., P. Sc., L.Sc., Hist., Geo., P.Ed., W.Ed.	W.B.B.S.E.	1992	FIRST	82% (Star)
H.S. / 10+2 standard	Math., Physis, Chemistry, Biology, Bengali, English	W.B.C.H.S.E.	1994	FIRST	79.2% (Star)
Graduation	Mathematics(Hons), Physis, Chemistry	Jadavpur University	1997	FIRST	81.9% (1st)
Master Degree	Mathematics	Jadavpur University	1999	FIRST	79.6% (1st)
PhD	Relativity and Cosmology	Jadavpur University	2004		

***Title of Ph. D Thesis*:** "Classical Solutions in Einstein's Gravity and Study of Some Collapsing Models"

***PhD thesis supervisor*:** Prof. Subenoy Chakraborty, Department of Mathematics, Jadavpur University, Kolkata-700032.

Honours/Awards/Associateship:

- Recipient of University Gold Medal for getting the ***First position in BSc*** in Mathematics in 1997 from Jadavpur University, Kolkata.
- Recipient of University Gold Medal for getting the ***First position in MSc*** in Mathematics in 1999 from Jadavpur University, Kolkata.

- Recipient of Dr. Sudhangshu Kumar Banerjee Memorial Silver Medal for getting the ***highest aggregate of marks in MSc*** in Mathematics (among all the Science disciplines) in 1999 from Jadavpur University, Kolkata.
- JRF and then SRF for qualified in National Eligibility Test (NET) conducted by CSIR & UGC, New Delhi, India in June 2000 (All India Rank = 11).
- An Associate Member of IUCAA, Pune, India for the period of August 2005- July 2008, August 2008- July 2011, August 2011- July 2014, August 2014- July 2017, August 2017- July 2020, August 2020- July 2023, August 2023- July 2026.
- An Associate Member of IMSc, Chennai, India for the period of January 2006 - December 2008 and December 2013- November 2016.
- An Associate Member of TWAS-UNESCO, Trieste, Italy (Host Institute: Institute of Theoretical Physics, Chinese Academy of Science, Beijing, China) for the period of July 2011 – June 2014.
- TOP position in India for highly prolific research publications produced among all the IUCAA Associate Members during 2003 – 2013.
- Selected in top 2% Scientist by Stanford University in 2020, 2021, 2022, 2023, 2024.

Course attended:

1. Orientation Programme in UGC Academic Staff College, Jadavpur University, Kolkata during 16th November, 2009 – 14th December, 2009.

2. UGC Sponsored Refreshers Course "Recent Advances in Mathematics for Applied Sciences" in the Dept of Mathematics, Jadavpur University, Kolkata during October 25, 2010 to November 15, 2010.

***Research/Teaching Experience*:**

- Carried out research as fellow (JRF and SRF) of Council of Scientific and Industrial Research (CSIR) under the guidance of Prof. Subenoy Chakraborty in the Department of Mathematics, Jadavpur University during the period from February 2001 to December 2004.
- From February, 2000 – February, 2001, part-time Lecturer in Mrinalini Datta Mahavidyapith, Birati, Kolkata, India.
- Taught in Jadavpur University, Kolkata as a research scholar during 2001 – 2004.
- From December, 2004 to December, 2008, full-time Lecturer in the Department of Mathematics, Bengal Engineering and Science University, Shibpur, Howrah, India.
- From December, 2008 to December, 2013, Assistant Professor (Stage II) in the Department of Mathematics, Bengal Engineering and Science University, Shibpur, Howrah, India.
- From December, 2013 to March, 2014, Assistant Professor (Stage III) in the Department of Mathematics, Bengal Engineering and Science University, Shibpur, Howrah, India.
- From March, 2014 to February, 2019, Assistant Professor (Stage III) in the Department of Mathematics, Indian Institute of Engineering Science and Technology, Shibpur, Howrah, India.
- From February, 2019 to till date, Associate Professor in the Department of Mathematics, Indian Institute of Engineering Science and Technology, Shibpur, Howrah, India

***Main Research fields*:**

- General Relativity, Cosmology, Astrophysics.

***Research Projects* :**

***Completed**:*

- Principal Investigator in the Project entitled "***Gravitational Collapse in Four and Higher Dimensional Space-Times***" (No. 25(0153)/06/EMR-II) funded by Council of Scientific and Industrial Research (CSIR), Govt. of India. Total sanctioned amount is Rs. 2,00,000 /- and duration of the project is three years: 28th November, 2006 – 27th November, 2009.
- Principal Investigator in the Project entitled "***Various models Due to Accelerating Expansion of the Universe***" (No. DRO-2/6858) awarded by Bengal Engineering and Science University, Govt. of West Bengal, India. Sanctioned amount is Rs. 18,000 /- during 2006-2007.
- Principal Investigator in the Project entitled "***Various models due to accelerating Universe***" (No.32-157/2006(SR)) funded by University Grants Commission (UGC), Govt. of India. Total sanctioned amount is Rs. 5,62,100 /- and duration of the project is three years: 1st April, 2007 – 31st March, 2010.
- Principal Investigator in the Project entitled "***Dark Energy Models and Accelerating Universe***" (No. 03(1206)/12/EMR-II) funded by Council of Scientific and Industrial Research (CSIR), Govt. of India. Total sanctioned amount is Rs. 15,92,000/- and duration of the project is three years: 1st July, 2012 – 30th June, 2015.
- Principal Investigator in the Project entitled "**Stability Analysis of Various Dark Energy Models in the Universe**" (Project File No. MTR/2019/000751/MS) funded by SERB DST (MATRICS Scheme). Total sanctioned amount is Rs. 6,60,000/- (Rs. 2,00,000 per year + Rs. 20,000 overheads per year) and duration of the project is three years : 19th February, 2020 – 18th February, 2023.

Ongoing:

1. Principal Investigator (PI) with two Co-PIs in the PAIR Project entitled "Exploring fundamental and exotic properties of materials in computer: Direction to laboratory experiments" in ANRF with proposed amount Rs. 1,79,94,000/- for 05 years from April,2025.

***Life Membership*:**

- Indian Association of General Relativity and Gravitation, Pune, India.
- Astronomical Society of India (Membership No. L2136).

Reviewer of Scientific Journals:

1. Modern Physics Letters A, World Scientific Publishing Company, Singapore.
2. International Journal of Modern Physics D, World Scientific Publishing Company, Singapore.
3. Astrophysics and Space Science, Springer Publishing Company.
4. Physics Letters A.
5. Europhysics Letters.
6. Gravitation and Cosmology, Springer.
7. Indian Journal of Physics, Springer.
8. International Journal of Theoretical Physics, Springer Publishing Company.
9. Hadronic Journal, USA.

10. Comptes rendus Geoscience, Elsevier.
11. European Physical Journal C, Springer.
12. Canadian Journal of Physics.
13. Physics Scripta, IOP.
14. Symmetry, MDPI Publishing, Switzerland.
15. Pramana-Journal of Physics, Indian Academy of Sciences, Springer.
16. Journal of gravity, Hindawi Publishing Corporation, USA.
17. Advances in Astronomy, Hindawi Publishing Corporation, USA.
18. Nuclear Physics B.
19. Classical and Quantum Gravity.
20. Journal of Scientific Research and Reports.
21. Asian Journal of Research and Reviews in Physics.
22. Modern Physics Letters A
23. European Physical Journal Plus.
24. Universe

***Research Collaborations*:**

(i) Cambridge University, UK.
(ii) Harvard University, USA.
(iii) Dublin City University, Dublin, Ireland.
(iv) Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India.
(v) Jadavpur University, Kolkata, India.
(vi) Eurasian International Center for Theoretical Physics, Eurasian National University, Astana, Kazakhstan.
(vii) Kobayashi-Maskawa Institute for the Origin of Particles and the Universe, Nagoya University, Nagoya, Japan.
(viii) School of Physics, Damghan University, Damghan, Iran.
(ix) Rikkyo University, Tokyo, Japan.
(x) Fukushima University, Fukushima, Japan.

***M.Sc. Dissertation*:**

No.	Name	Title of the Project	Year
1	Shuvendu Chakraborty	Einstein's Relativity in the Context of Lorentz Transformation and Applications	September, 2005
2	Tapan Kumar Mandal	Black Hole: The Mysterious Object of Our Universe	July, 2006
3	Kalyan Moy Chattopadhyay	Some Basic Concepts on Cosmology	July, 2007
4	Pradip Pramanik	Accelerating Expansion of Our Universe	August, 2008
5	Rahul Ghosh	Dark Matter and Dark Energy of the Universe	July, 2009
6	Susanta Bera	Gravitational Collapse in Four and Five Dimensions	July, 2009

7	Nayan Kr. Ranjit	The Role of Dark Energy in Acceleration of the Universe	June, 2010
8	Arundhati Das	Validity of Thermodynamical Laws of the Universe	June, 2011
9	Sayani Maity	Several Candidates of Dark Energy Models	June, 2011
10	Rinki Dey	Dark Energy Models and Accelerating Universe	June, 2012
11	Moumita Das	Laws of Thermodynamics in Cosmology	June, 2012
12	Mosrafil Mollick	The Accretion of Matter onto a Black Hole	June, 2013
13	Prasanta Bera	Study of Wormhole Dynamics	June, 2013
14	Siddhartha Sankar Sarkar	Black Hole Solutions in Brane World Scenario : Possible Accretion Phenomena	June, 2014
15	Sagnik Pal	Dark Energy and Modified Gravity	June, 2014
16	Abhijit Nemu	Consequences of Tachyonic Field in Four and Higher Dimensional Cosmology	June, 2015
17	Biswajit Manna	Exploration of Various Aspects of Variable Modified Chaplygin Gas in Accelerating Universe	June, 2015
18	Provonjoy Bhattacharjee	Several Versions of Chaplygin Gas Dark Energy Models	May, 2016
19	Puja Mukherjee	Accretion Phenomena of Dark Energy onto Black Hole	May, 2016
20	Aniruddha Seal	Hawking Radiation from Black Hole	May, 2017
21	Ranita Debnath	Big Bang Cosmology	May, 2017
22	Nilanjan Pal	Black Holes as Particle Accelerators	May, 2018
23	Biplab Das	The Accretion of Dark Energy onto a Black Hole	May, 2018
24	Pallab Bhanja	Dark Energy and the Universe	May, 2018
25	Soumyadipta Basak	Some Aspects of Wormhole Theory	May, 2019
26	Soumak Nag	Study of Multiverse and Parallel Universes	May, 2019
27	Supratim Mukherjee	Implications of Some Dark Energy Models	July, 2020
28	Sarsen Hazra	Dark Matter and Dark Energy	July, 2021
29	Ranjini Mandal	Various kinds of Dark Energy Models in Accelerating Universe	June 2022
30	Nripendra Nath Saren	Black Hole Thermodynamics	June 2022
31	Arijit Malakar	Study of BADE and BNADE in Fractal Universe and Correspondence with some scalar field Dark Energy	June 2023
32	Subhajit Sarkar	Study of Dirac-Born-Infeld (DBI) Warm Intermediate and Logamediate Inflationary Universe from Loop Quantum Cosmological Perspective	June 2023

33	Imran Khan	Strong Gravitational Lensing for Einstein-Power-Yang-Mills black hole	June 2023
34	Snehasmita Nanda	Black Hole Thermodynamics in Massive Gravity	June 2024
35	Pratik Dey	Traversable Wormhole in f(Q) gravity with Polytropc EoS and Varying Chaplygis gas	June 2024
36	Suranjan Roy	Study of Some Structural properties for Charged Strange Stars with Chaplygin Gas	June 2024

***M.Sc. Mini-Project*:**

No.	Name	Title of the Project	Year
1	Sarsen Hazra	Special Theory of Relativity	December, 2019
2	Hemant	Cantor's Set Theory	December, 2019
3	Sarsen Hazra	Fundamental Astronomy	July, 2020
4	Hemant	Intro to Prime	July, 2020
5	Shaon Naskar	Game Theory	March, 2021
6	Nripendra Nath Saren	Taylor Series	March, 2021
7	Shaon Naskar	Curve Tracing	July, 2021
8	Nripendra Nath Saren	The Rising Sun Lemma and it's Applications	July, 2021
9	Arijit Malakar	Prime Numbers	January 2022
10	Rima Dolai	An Introduction to Set and its Cardinality	January 2022
11	Kavitha M J	An Introduction to Fibonacci Series	January 2022
12	Arijit Malakar	Graph Theory	June 2022
13	Rima Dolai	Functions and Their Properties	June 2022
14	Kavitha M J	An Introduction to Leibniz Integral Rule	June 2022
15	Snehasmita Nanda	Application of Differential Equation	January 2023
16	Pratik Dey	The Great Debate on Ramanujan Summation	January 2023
17	Azmain Biswas	Measuire in Real Line	January 2023
18	Snehasmita Nanda	Sequence and Series	May 2023
19	Pratik Dey	Population Model on Single and Interactive Species	May 2023
20	Azmain Biswas	Factorials of real negative and complex numbers	May 2023
21	Lipita Padhan	Spectral Theory	January 2024
22	Kulamani Sahoo	Bayesian Theory	January 2024
23	Snigdha Das	APPLICATION OF DIJKSTRA'S ALGORIYHM	January 2024
24	Lipita Padhan	Artificial Intelligence	May 2024
25	Kulamani Sahoo	A Journey into Complex Analysis: Exploring Riemann Surfaces	May 2024
26	Snigdha Das	Fuzzy Set Theory	May 2024
27	Totan Mahata	Riemann Integration	December 2024
28	Ratna Roy	University Schedule using Graph Theory	December 2024

***M.Sc. Term Paper*:**

No.	Name	Title of the Project	Year
1	Aditi Choudhury	Implications of Dark Energy in the Universe	July, 2020
2	Sohini Pal	Features of Galactic Halo in the Universe	July, 2020
3	Ranjini Mandal	Multi-Projection Method for Fredholm Integral Equations of Second Kind	July, 2021
4	Nripendra Nath Saren	Complex Dynamics of Newton's Method	July, 2021
5	Arijit Malakar	Expanding Universe	June, 2022
6	Subhajit Sarkar	A Review on Spherical Astronomy	June 2022
7	Imran Khan	The Concept of time: Space, Spacetime and Causality	June 2022
8	Snehasmita Nanda	Black Hole	May 2023
9	Pratik Dey	Traversable Wormhole	May 2023
10	Suranjan Roy	Compact Stars	May 2023
11	Lipita Padhan	Wormhole	May 2024
12	Sushmita Kumari	Black Holes	May 2024

Ph. D Guidance:

No	Name	Title of the Thesis	Current status	Supervisors
1	Soma Nath	"Gravitational Collapse and Astrophysical Consequences in Einstein's Gravity and Brane World Scenario"	Ph. D **awarded** on 24/12/2007 from Jadavpur University, India	Subenoy Chakraborty and Ujjal Debnath
2	Writambhara Chakraborty	"Accelerating Expansion of the Universe"	Ph. D **awarded** on 13/05/2010 from BESU, India	Ujjal Debnath
3	Surajit Chattopadhyay	"Study of Some Models for Acceleration of the Universe and its Consequences in Cosmology"	Ph. D **awarded** on 21/12/2010 from BESU, India	Ujjal Debnath
4	Shuvendu Chakraborty	"Accelerating Universe in Anisotropic Cosmology"	Ph. D **awarded** on 18/03/2011 from BESU, India	Ujjal Debnath
5	Anup Kumar Singha	"Some Possible Causes for Expansion of the Universe"	Ph. D **awarded** on 19/08/2011 from BESU, India	Ujjal Debnath
6	Samarpita Bhattacharya	"Study of Thermodynamical Properties of the Universe"	Ph. D **awarded** on 07/05/2015 from IIESTS, India	Ujjal Debnath
7	Piyali Bagchi Khatua	"Study of Some Cosmological Models in the Accelerating Universe"	Ph. D **awarded** on 20/11/2015 from IIESTS, India	Ujjal Debnath
8	Jhumpa Bhadra (CSIR-NET JRF)	"Consequences of Dark Energy in Black Hole and Accelerating Universe"	Ph. D **awarded** on 29/08/2016 from IIESTS, India	Ujjal Debnath
9	Chayan Ranjit	"Study of Cosmological Properties of the Universe in Higher Dimension"	Ph. D **awarded** on 30/09/2016 from IIESTS, India	Ujjal Debnath and Shuvendu Chakraborty
10	Prabir Rudra	"Study of Gravitational Collapse and Dynamics of some Dark Energy Models Responsible for the Recent Cosmic Acceleration"	Ph. D **awarded** on 24/11/2016 from IIESTS, India	Ujjal Debnath and Ritabrata Biswas

11	Sayani Maity	"Study of various aspects of dark energy in accelerating universe"	Ph. D **awarded** on 26/04/2017 from IIESTS, India	Ujjal Debnath
12	Rahul Ghosh	"Exploration of the various aspects of modified gravity approach to the accelerated expansion of the universe"	Ph. D **awarded** on 21/09/2017 from IIESTS, India	Ujjal Debnath and Surajit Chattopadhyay
13	Pameli Saha (DST Inspire JRF-SRF)	"Consequences of Various Types of Dark Energy Models in Accelerating Universe and Study of Black Holes"	Ph. D **awarded** on 27/06/2019 from IIESTS, India	Ujjal Debnath
14	Jyotirmay Das Mandal	"Study of Inflationary Universe and Cosmological Phenomena of Dark Energy Models"	Ph. D **awarded** on 27/06/2019 from IIESTS, India	Ujjal Debnath
15	Mahasweta Biswas	"Cosmological Implications of Dark Energy Models in Modified Gravity Theories"	Ph. D **awarded** on 08/01/2021 from IIESTS, India	Ujjal Debnath
16	Tanusree Roy (Institute Fellow) - OC JRF- 23/07/2019 – 22/07/2021 SRF-23/07/2021 – 16/03/2023	"A Study on Black Hole Thermodynamics in Classical and Modified Gravity Frameworks"	**Registered** for Ph. D (Enrollment No. 20190017 w.e.f. 17/07/2019) Registration No. 2020MAPR044 w.e.f. 02/10/2020	Ujjal Debnath
17	Alok Sardar (CSIR-NET) – SC JRF- 23/07/2019 – 31/07/2021 SRF- 01/08/2021 – 31/07/2024	"Some Theoretical Aspects of Dark Energy and Modified Gravity in the Accelerating Universe"	**Registered** for Ph. D (Enrollment No. 20190042 w.e.f. 17/07/2019) Registration No. 2020MAPR049 w.e.f. 02/10/2020	Ujjal Debnath
18	Niyaz Uddin Molla (CSIR-NET) – OBC JRF- 10/02/2020 – 28/02/2022 SRF- 01/03/2022 – 28/02/2025	"Relativistic black hole and its various astrophysical consequences"	Ph. D **awarded** on 19/03/2025 from IIESTS, India (Enrollment No. 20200015 w.e.f. 10/02/2020) Registration No. 2020MAPR053 w.e.f. 07/12/2020 Thesis Submitted on 18/09/2024	Ujjal Debnath
19	Krishna Pada Das (UGC-NET) - OBC JRF- 10/02/2020 – 09/02/2022 SRF- 10/02/2022 – 09/02/2025	"Compact star, Strange star, Neutron Star, Gravastar"	**Registered** for Ph. D (Enrollment No. 20200021 w.e.f. 10/02/2020) Registration No. 2020MAPR051 w.e.f. 07/12/2020	Ujjal Debnath
20	Debojyoti Mondal (CSIR-NET) – SC JRF- 21/10/2020 – 20/10/2022 SRF- 01/11/2022 – 31/10/2025	"Black Hole Thermodynamics"	**Registered** for Ph. D (Enrollment No. 2020MAP003 w.e.f. 21/10/2020) Registration No. 2021MAPR002 w.e.f. 22/10/2021	Ujjal Debnath
21	Rownak Kundu (UGC-NET) - OBC JRF- 03/11/2020 – 22/09/2022	Gravitational Lensing of the Universe	**Registered** for Ph. D (Enrollment No. 2020MAP013 w.e.f. 03/11/2020) Registration No. 2021MAPR010 w.e.f. 22/10/2021	Ujjal Debnath

22	Puja Mukherjee (Institute Fellow) – OC JRF- 21/02/2022 – 20/02/2024 SRF- 21/02/2024 - 20/02/2027	Black Hole Accretion	**Registered** for Ph. D (Enrollment No. 2021MAP002 w.e.f. 21/02/2022 Registration No. 2023MAPR003 w.e.f. 08/02/2023)	Ujjal Debnath
23	Soubhik Paramanik (Institute Fellow) – OC JRF- 03/03/2022 – 02/03/2024 SRF- 03/03/2024- 02/03/2027	Wormhole	**Registered** for Ph. D (Enrollment No. 2021MAP008 w.e.f. 03/03/2022 Registration No. 2023MAPR007 w.e.f. 08/02/2023)	Ujjal Debnath
24	Ratul Mandal (UGC-NET) - SC JRF- 03/08/2022 – 02/08/2024 SRF- 03/08/2024 – 02/08/2027	Dynamical System in Dark Energy and Modified Gravity	**Registered** for Ph. D (Enrollment No. 2022MAP009 w.e.f. 03/08/2022 Registration No. 2023MAPR017 w.e.f. 12/06/2023)	Ujjal Debnath
25	Anamika Kotal (Institute Fellow) - OC JRF: 20/01/2023 – 19/01/2025 SRF:	Dark Energy, Modified Gravity	**Registered** for Ph. D (Enrollment No. 2022MAP020 w.e.f. 19/01/2023 Registration No. 2024MAPR001 w.e.f. 23/11/2023)	Ujjal Debnath
26	Rounak Manna (UGC-NET) - OC JRF: 19/01/2023 – 18/01/2025 SRF:	Stellar Structure, Galactic Halo, Wormhole	**Registered** for Ph. D (Enrollment No. 2022MAP013 w.e.f. 19/01/2023 Registration No. 2024MAPR006 w.e.f. 23/11/2023)	Ujjal Debnath
27	Aniruddha Ghosh (Institute Fellow) – EWS JRF: 07.08.2023	Black Hole	**Registered** for Ph. D (Enrollment No. 2023MAP008 w.e.f. 07/08/2023 Registration No. 2024MAPR016 w.e.f. 24/06/2024)	Ujjal Debnath
28	Sayan Naskar (CSIR-NET) – SC JRF: 07/08/2023	Black Hole Lensing, Shadow	**Registered** for Ph. D (Enrollment No. 2023MAP006 w.e.f. 07/08/2023 Registration No. 2024MAPR014 w.e.f. 24/06/2024)	Ujjal Debnath
29	Anuka Basak (Institute Fellow) – OC JRF: 14/12/2023	Black Hole Accretion	**Enrolled** for Ph. D (Enrollment No. 2023MAP010 w.e.f. 14/12/2023)	Ujjal Debnath
30	Biswajit Sarkar (UGC-NET) – OBC JRF: 14/12/2023	Wormhole	**Enrolled** for Ph. D (Enrollment No. 2023MAP015 w.e.f. 14/12/2023)	Ujjal Debnath
31	Suibhajit Sarkar (Institute Fellow) – OBC JRF: 31/07/2024	Inflation, Dark Energy	**Enrolled** for Ph. D (Enrollment No. 2024MAP010 w.e.f. 31/07/2024)	Ujjal Debnath

Project Fellow:

Mr. Sudipta Das, Project Fellow under UGC project entitled "*Various models due to accelerating Universe*" (No.32-157/2006(SR)) funded by University Grants Commission (UGC), Govt. of India in 2007 (for 08 months).

Post-Doctoral Guidance:

Dr. Ritabrata Biswas, Research Associate (RA) under CSIR project entitled "*Dark Energy Models and Accelerating Universe*" (No. 03(1206)/12/EMR-II) funded by Council of Scientific and Industrial Research (CSIR), Govt. of India. from 07/12/2012 to 31/08/2014.

Scientific Visit/Participation/Paper Presentation in Seminars, Summer Schools, Conferences, Workshops:

- **Abroad**

No	Seminar/Conference/ Workshop/Visit	Presentation	Venue	Year
1	"Summer School in Cosmology and Astroparticle Physics"	--	ICTP, Trieste, Italy	28 June-10 July, 2004
2	EPS 13, "Einstein's Relativity – Physics for the 21st Century"	Modified Chaplygin Gas and Accelerated Universe	The University of Bern, Bern, Switzerland	11-15 July, 2005
3	"Relativistic Astrophysics and Cosmology - Einstein's Legacy"	Modified Chaplygin Gas and Accelerated Universe	Technical University, Munich, Germany	7-11 November, 2005
4	"International Congress of Mathematicians" (ICM 2006)	Chaplygin Gas and Accelerating Universe	International Convention Centre, Madrid, Spain	22-30 August, 2006
5	6th International Congress on Industrial and Applied Mathematics (ICIAM 07)	Effect of Dynamical Cosmological Constant in presence of Modified Chaplygin Gas for Accelerating Universe	The University of Zurich, Zurich, Switzerland	15 – 22 July, 2007
6	Scientific Visit	--	Dublin City University, Dublin, Ireland	22 – 30 July, 2007
7	Scientific Visit	--	London, UK	30 July – 07 August, 2007
8	TWAS Associateship Programme	Quasi-Spherical Gravitational Collapse	Institute of Theoretical Physics, Chinese Academy of Science, Beijing, China	21 May – 18 June, 2012
9	TWAS Associateship Programme	Gravitational Collapse in Vaidya Space-Time	Institute of Theoretical Physics, Chinese Academy of Science, Beijing, China	08 September - 08 October, 2013
10	Scientific Visit	Accretion of Dark Energy onto Black Hole and Wormhole	Department of Physics, Rikkyo University, Tokyo, Japan	07 – 15 March, 2017
11	Scientific Visit	--	Division of Human Support System, Faculty of Symbiotic Systems Science, Fukushima University, Fukushima 960-1296, Japan	13-28 March, 2018

- **India**

No	Seminar/Conference/ Workshop/Visit	Presentation	Venue	Year
1	"Recent Trends in Mathematical Sciences"	A Quintessence Problem in Self-interacting Brans-Dicke Theory	Department of Mathematics, Jadavpur University, India	22 - 23 March, 2002
2	Scientific Visit	--	IUCAA, Pune-411 007, India	June-July, 2002
3	"Workshop on Gravitation and Astrophysics"	Naked Singularities in Higher Dimensional Collapse	Science College, Nagpur-440 012, India	27-30 October, 2002
4	Scientific Visit	--	IUCAA, Pune-411 007, India	November-December, 2002
5	"22nd meeting of the Indian Association for General Relativity and Gravity"	Spherical Dust Collapse in Higher Dimension	IUCAA, Pune-411 007, India	11-14 December, 2002
6	"Advances in Mathematical Sciences"	A Study of Higher Dimensional Inhomogeneous Cosmological Model	Department of Mathematics, Jadavpur University, India	21-22 March, 2003
7	Scientific Visit	--	IUCAA, Pune-411 007, India	June-July, 2003
8	"Mathematical Modeling: Theory and Practice"	Quasi-Spherical Gravitational Collapse	Department of Mathematics, Jadavpur University, India	25-26 March, 2004
9	Scientific Visit	--	IUCAA, Pune-411 007, India	June-July, 2004
10	23rd Conference of the IAGRG and Symposium on "Recent Trends in General Relativity, Cosmology and Astrophysics"	(i) Varying G and Λ in Brane World Scenario, (ii) Ph.D Thesis	University of Rajasthan, Jaipur, Rajasthan, India	7-10 December, 2004
11	One day Symposium on "Hundred Years of Special Theory of Relativity"	--	The University of Burdwan, Burdwan-713 104, India	15 January, 2005
12	Scientific Visit as an Associateship	--	IUCAA, Pune-411 007, India	19 December, 2005 - 3 January,

	Programme			2006
13	"Workshop on Black Holes, Space-time Singularities and Cosmic Censorship"	Quasi-Spherical Gravitational Collapse	TIFR, Mumbai, India	3- 8 March, 2006
14	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	19 June - 4 July, 2006
15	Scientific Visit as an Associateship Programme	--	IMSc, Chennai, India	12 December,2006 – 3 January, 2007
16	Scientific Visit	Quasi-Spherical Gravitational Collapse	IISc, Bangalore, India	4 – 8 January, 2007
17	24th IAGRG Meeting "Recent Advances in Gravitation and Cosmology"	Gravitation Collapse in Higher Dimensional Husain Space-Time	Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi, India	5 – 8 February, 2007
18	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	22 May - 8 June, 2007
19	Scientific Visit as an Associateship Programme	--	IMSc, Chennai, India	25 November – 16 December, 2007
20	6th International Conference on Gravitation and Cosmology (ICGC-07)	Gravitational Collapse in Husain space-Time	IUCAA, Pune-411 007, India	17 – 21 December, 2007
21	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	30 April - 17 May, 2008
22	25th IAGRG Meeting "From Black Holes to the Universe: Gravity at Work"	--	SINP, Kolkata	28-31 January, 2009
23	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	01 – 22 May, 2009

24	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	28 December, 2009 – 11 January, 2010
25	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	16 May – 06 June, 2010
26	"International Congress of Mathematicians" (ICM 2010)	Validity of Thermodynamical Laws in Dark Energy Filled Universe	International Convention Centre, Hyderabad, India	19-27 August, 2010
27	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	25 December, 2010 – 10 January, 2011
28	The Twenty Sixth Meeting of the IAGRG Sangam: Confluence of Gravitation and Cosmology	Holographic dark energy interacting with two fluids and validity of generalized second law of thermodynamics	Harish Chandra Research Institute, Allahabad, India	19 - 21 January, 2011
29	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	15 May – 25 June, 2011
30	Workshop on "Data Analysis: X-Ray Pulsars and Compact Objects"	--	North Bengal University, Siliguri, India	1-3 December, 2011
31	7th International Conference on Gravitation and Cosmology (ICGC2011)	Thermodynamics in Vaidya Space-Time	Resort Holiday Inn, Goa, India	14-19 December, 2011
32	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	20 December, 2011 – 10 January, 2012
33	COSGRAV 12	Thermodynamics in Vaidya Space-Time	Indian Statistical Institute, Kolkata, India	7-11 February, 2012
34	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	24 December, 2012 – 07 January, 2013

35	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	23 December, 2013 – 13 January, 2014
36	Scientific Visit as an Associateship Programme	--	IUCAA, Pune-411 007, India	09 December, 2014 – 05 January, 2015
37	Scientific Visit as an Associateship Programme	Dark Energy Accretion: General Relativistic Prescription	IUCAA, Pune-411 007, India	08 June – 06 July, 2015
38	The International Conference on Relativity and Cosmology (ICGC 2015)	Entropy Bound of Horizons for Accelerating, Rotating and Charged Plebanski-Demianski Black Hole	IISER, Mohali, Punjab, India	14 – 18 December, 2015
39	Scientific Visit	Gravitational Collapse in Husain Space-Time	IISc, Bangalore, India	10 – 13 February, 2020

List of Publications in peer-reviewed scientific journals:

No.	Authors	Title of the paper	Journal/Volume/Page/Year
1	Subenoy Chakraborty, Narayan Chandra Chakraborty and Ujjal Debnath	Brans-Dicke Cosmology in an Anisotropic Model when Velocity of Light Varies	*International Journal of Modern Physics D*, Vol. 11 No. 6, (2002) 921-932 DOI:10.1142/S0218271802002013
2	Subenoy Chakraborty, Narayan Chandra Chakraborty and Ujjal Debnath	Quintessence Problem and Brans-Dicke theory	*Modern Physics Letters A*, Vol. 18, No. 22, (2003) 1549-1555 DOI:10.1142/S0217732303009630
3	Subenoy Chakraborty, Narayan Chandra Chakraborty and Ujjal Debnath	A Quintessence Problem in Brans-Dicke Theory with Varying Speed of Light	*International Journal of Modern Physics D*, Vol. 12 No. 2, (2003) 325-335 DOI:10.1142/S0218271803002792
4	Subenoy Chakraborty, Narayan Chandra Chakraborty and Ujjal Debnath	A Quintessence Problem in self-interacting Brans-Dicke theory	*International Journal of Modern Physics A*, Vol. 18, No. 19, (2003) 3315-3323 DOI:10.1142/S0217751X03015064
5	Subenoy Chakraborty, Narayan Chandra Chakraborty and Ujjal Debnath	The Cosmology in a Perfect or Causal Viscous Fluid with Varying Speed of Light	*Physica Scripta*, Vol. 68, No. 6, (2003) 399-404 DOI: 10.1238/Physica.Regular.068a00399
6	Subenoy Chakraborty and Ujjal Debnath	Does Cosmic No-Hair Conjecture in Brane Scenarios follow from General Relativity?	*Classical and Quantum Gravity,* Vol. 20, No. 13, (2003) 2693-2696 DOI:10.1088/0264-9381/20/13/317
7	Asit Banerjee, Ujjal Debnath and Subenoy Chakraborty	Naked Singularities in Higher Dimensional Gravitational Collapse	*International Journal of Modern Physics D,* Vol. 12, No. 7, (2003) 1255-1264 DOI:10.1142/S021827180300375X
8	Ujjal Debnath and Subenoy Chakraborty	The study of gravitational collapse model in higher dimensional space-time	*Modern Physics Letters A,* Vol. 18, No. 18, (2003) 1265-1271 DOI:10.1142/S0217732303009721
9	Ujjal Debnath, Subenoy Chakraborty and John D. Barrow	Quasi-Spherical Gravitational Collapse in Any Dimension	*General Relativity and Gravitation,* Vol. 36, No. 2, (2004) 231-243 DOI:10.1023/B:GERG.0000010472.1053

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10	Ujjal Debnath and Subenoy Chakraborty	Gravitational Collapse in Higher Dimensional Space-Time	*General Relativity and Gravitation*, Vol. 36, No. 6, (2004) 1243-1253 DOI:10.1023/B:GERG.0000022385.32666.4d
11	Ujjal Debnath and Subenoy Chakraborty	Naked Singularities in Higher Dimensional Szekeres Space-Time	*Journal of Cosmology and Astroparticle Physics*, Vol. 05, (2004) 001 (1-12) DOI:10.1088/1475-7516/2004/05/001
12	Asit Banerjee, Ujjal Debnath and Subenoy Chakraborty	Higher Dimensional Szekeres Space-Time in Brans-Dicke Scalar Tensor Theory	*International Journal of Modern Physics D*, Vol. 13, No. 6, (2004) 1073-1083 DOI:10.1142/S0218271804005055
13	Subenoy Chakraborty and Ujjal Debnath	A Study of Higher Dimensional Inhomogeneous Cosmological Model	*International Journal of Modern Physics D*, Vol. 13, No. 6, (2004) 1085-1093 DOI:10.1142/S0218271804005067
14	Soma Nath, Subenoy Chakraborty and Ujjal Debnath	Anisotropic Brane Cosmology with Variable G and Λ	*Journal of Cosmology and Astroparticle Physics*, Vol. 11, (2004) 012 (1-19) DOI:10.1088/1475-7516/2004/11/012
15	Ujjal Debnath, Asit Banerjee and Subenoy Chakraborty	Role of Modified Chaplygin Gas in Accelerated Universe	*Classical and Quantum Gravity*, Vol. 21, No. 23, (2004) 5609-5617 DOI:10.1088/0264-9381/21/23/019
16	Ujjal Debnath, Soma Nath and Subenoy Chakraborty	Quasi-Spherical Solution with Heat Flux and Non-Adiabatic Collapse of Radiating Star	*General Relativity and Gravitation*, Vol. 37, No. 1, (2005) 215 – 223 DOI:10.1007/s10714-005-0010-6
17	Ujjal Debnath and Subenoy Chakraborty	Role of Initial Data in Quasi-Spherical Higher Dimensional Gravitational Collapse	*General Relativity and Gravitation,* Vol. 37, No. 1, (2005) 225 – 232 DOI:10.1007/s10714-005-0011-5
18	Subenoy Chakraborty and Ujjal Debnath	Quasi-spherical gravitational collapse and the role of initial data, anisotropy and inhomogeneity	*Modern Physics Letters A,* Vol. 20, No.19, (2005) 1451-1458 DOI:10.1142/S021773230501580X
19	Subenoy Chakraborty, Sanjukta Chakraborty and Ujjal Debnath	Role of Pressure in Quasi-spherical Gravitational Collapse	*International Journal of Modern Physics D*, Vol. 14, No. 10, (2005) 1707-1723 DOI:10.1142/S0218271805007310
20	Ujjal Debnath, Subenoy Chakraborty and Naresh Dadhich	A Dynamical Symmetry of the Quasi-Spherical (or Spherical) Collapse	*International Journal of Modern Physics D,* Vol. 14, No. 10, (2005) 1761-1767 DOI:10.1142/S021827180500736X
21	Sisir Bhanja, Subenoy Chakraborty and Ujjal Debnath	Adiabatic Particle Production with Decaying Λ and Anisotropic Universe	*International Journal of Modern Physics D*, Vol. 14, No. 11, (2005) 1919 – 1925 DOI:10.1142/S0218271805007498
22	Ujjal Debnath, Banibrata Mukhopadhyay and Naresh Dadhich	Space-time curvature coupling of spinors in early universe: Neutrino asymmetry and a possible source of baryogenesis	*Modern Physics Letters A*, Vol. 21, No. 5, (2006) 399-408 DOI:10.1142/S0217732306019542
23	Ujjal Debnath, Soma Nath and Subenoy Chakraborty	Quasi-Spherical Collapse with Cosmological Constant	*Monthly Notices of the Royal Astronomical Society*, Vol. 369, (2006) 1961-1964 DOI:10.1111/j.1365-2966.2006.10457.x
24	Soma Nath, Subenoy Chakraborty and Ujjal Debnath	Gravitational Collapse due to dark matter and dark energy in the brane world scenario	*International Journal of Modern Physics D,* Vol. 15, No. 8, (2006) 1225 – 1236 DOI:10.1142/S0218271806008917
25	Anup Kumar Singha and Ujjal Debnath	Varying Speed of Light, Modified Chaplygin Gas and Accelerating Universe	*International Journal of Modern Physics D*, Vol. 16, No. 1, (2007) 117-122 DOI:10.1142/S0218271807009358
26	Sanjukta Chakraborty, Subenoy Chakraborty and Ujjal Debnath	The effect of pressure in higher dimensional quasi-spherical gravitational collapse	*International Journal of Modern Physics D*, Vol. 16, No. 5, (2007) 833 – 846 DOI:10.1142/S0218271807010432

27	Writambhara Chakraborty and Ujjal Debnath	Is Modified Chaplygin gas along with barotropic fluid responsible for acceleration of the Universe?	*Modern Physics Letters A*, Vol. 22, No. 24, (2007) 1805–1812. DOI:10.1142/S021773230702172X
28	Sanjukta Chakraborty, Subenoy Chakraborty and Ujjal Debnath	Quasi-Spherical Gravitational Collapse in higher dimension and the effect of equation of state	*Gravitation and Cosmology,* Vol. 13, No. 3 (51), (2007) 211-216.
29	Ujjal Debnath	Variable Modified Chaplygin Gas and Accelerating Universe	*Astrophysics and Space Science,* Vol. 312, No. 3-4, (2007) 295 – 299 DOI:10.1007/s10509-007-9690-6
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31	Writambhara Chakraborty, Ujjal Debnath and Subenoy Chakraborty	Generalized Cosmic Chaplygin Gas Model with or without Interaction	*Gravitation and Cosmology,* Vol. 13, No. 4 (52), (2007) 293 –297
32	Writambhara Chakraborty and Ujjal Debnath	Effect of Dynamical Cosmological Constant in presence of Modified Chaplygin Gas for Accelerating Universe	*Astrophysics and Space Science,* Vol. 313, No. 4, (2008) 409 – 417 DOI:10.1007/s10509-007-9710-6
33	Soma Nath, Ujjal Debnath and Subenoy Chakraborty	Junction Conditions and Consequences of Quasi-Spherical Space-Time with Electro-Magnetic Field and Vaidya Metric	*Astrophysics and Space Science,* Vol. 313, No. 4, (2008) 431 – 436 DOI:10.1007/s10509-007-9713-3
34	Writambhara Chakraborty and Ujjal Debnath	Interaction between scalar field and ideal fluid with inhomogeneous equation of state	*Physics Letters B*, Vol. 661, No. 1, (2008) 1 - 4. DOI:10.1016/j.physletb.2008.01.054
35	Surajit Chattopadhyay, Ujjal Debnath and Goutami Chattopadhyay	Acceleration of the Universe in Presence of Tachyonic field	*Astrophysics and Space Science,* Vol. 314, No. 1-3, (2008) 41 – 44. DOI:10.1007/s10509-007-9732-0
36	Subenoy Chakraborty and Ujjal Debnath	Shell Crossing Singularities in Szekeres Quasi-Spherical Models	*Gravitation and Cosmology,* Vol 14, No. 2, (2008) 184 – 189. DOI: 10.1134/S0202289308020102
37	Ujjal Debnath, Narayan Chandra Chakraborty and Subenoy Chakraborty	Gravitational Collapse in Higher Dimensional Husain Space-Time	*General Relativity and Gravitation,* Vol. 40, No. 4, (2008) 749 – 763. DOI:10.1007/s10714-007-0525-0
38	Anup Kumar Singha and Ujjal Debnath	Scalar Field Cosmology with Polytropic and Causal Viscous Fluids	*Astrophysics and Space Science,* Vol. 314, No. 4, (2008), 347-350. DOI:10.1007/s10509-008-9777-8
39	Ujjal Debnath and Subenoy Chakraborty	Role of Modified Chaplygin Gas as an Unified Dark Matter-Dark Energy Model in Collapsing Spherically Symmetric Dust Cloud	*International Journal of Theoretical Physics,* Vol. 47, (2008), 2663-2671 DOI:10.1007/s10773-008-9703-4
40	Writambhara Chakraborty and Ujjal Debnath	Role of Tachyonic Field in Accelerating Universe in Presence of Perfect Fluid	*Astrophysics and Space Science,* Vol. 315, No. 1-4, (2008), 73-78. DOI:10.1007/s10509-008-9795-6
41	Surajit Chattopadhyay and Ujjal Debnath	Density Evolution in the New Modified Chaplygin Gas Model	*Gravitation and Cosmology,* Vol. 14, No. 4, (2008), 341-346. DOI:10.1134/S0202289308040099
42	Ujjal Debnath	Emergent Universe and Phantom Tachyon Model	*Classical and Quantum Gravity,* Vol. 25, (2008), 205019-205027. DOI:10.1088/0264-9381/25/20/205019
43	Surajit Chattopadhyay and Ujjal Debnath	Holographic Dark Energy Scenario and Variable Modified Chaplygin Gas	*Astrophysics and Space Science,* Vol. 319, No. 2-4 (2009) 183-185 DOI:10.1007/s10509-009-9977-x
44	Writambhara Chakraborty and Ujjal Debnath	Role of Brans-Dicke Theory with or without self-interacting potential in cosmic acceleration	*International Journal of Theoretical Physics,* Vol. 48, No. 2, (2009) 232 – 247 DOI: 10.1007/s10773-008-9798-7
45	Anup Kumar Singha and Ujjal Debnath	Accelerating Universe with a Special Form of Decelerating Parameter	*International Journal of Theoretical Physics,* Vol. 48, No. 2, (2009) 351 – 356

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46	Surajit Chattopadhyay and Ujjal Debnath	Tachyonic field interacting with Scalar (Phantom) Field	*Brazilian Journal of Physics,* Vol 39, No. 1, (2009) 85 - 90 DOI: https://doi.org/10.1590/S0103-97332009000100015
47	Shuvendu Chakraborty and Ujjal Debnath	Effect of Modified Chaplygin Gas in Anisotropic Universe	*Astrophysics and Space Science,* Vol. 321, No. 1, (2009) 53 – 58 DOI:10.1007/s10509-009-0006-x
48	Sudipta Das and Ujjal Debnath	Statefinder description of a cosmological model based on a mixture of five fluids	*Astrophysics and Space Science,* Vol. 324, (2009) 61 – 66 DOI:10.1007/s10509-009-0140-5
49	Piyali Bagchi Khatua and Ujjal Debnath	Role of Chameleon Field in Accelerating Universe	*Astrophysics and Space Science,* Vol. 326, (2010) 53 – 60 DOI:10.1007/s10509-009-0207-3
50	Surajit Chattopadhyay and Ujjal Debnath	Interaction between phantom field and modified Chaplygin gas	*Astrophysics and Space Science,* Vol. 326, (2010) 155 – 158 DOI:10.1007/s10509-009-0237-x
51	Surajit Chattopadhyay and Ujjal Debnath	Interaction between DBI-essence and other Dark Energies	*International Journal of Theoretical Physics,* Vol. 49, (2010) 1465-1480 DOI:10.1007/s10773-010-0328-z
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53	Writambhara Chakraborty and Ujjal Debnath	A New Variable Modified Chaplygin Gas Model Interacting with Scalar Field	*Gravitation and Cosmology,* Vol. 16, No. 2, (2010) 223-227 DOI:10.1134/S0202289310030059
54	Shuvendu Chakraborty and Ujjal Debnath	Role of Chameleon Field in Anisotropic Universe with Logamediate and Intermediate Scenarios	*International Journal of Modern Physics A,* Vol. 25, No. 24, (2010) 4691-4701 DOI:10.1142/S0217751X10050408
55	Shuvendu Chakraborty and Ujjal Debnath	Anisotropic Universe with Hessence Dark Energy	*International Journal of Modern Physics D,* Vol. 19, No. 13, (2010) 2071-2078 DOI:10.1142/S0218271810018220
56	Surajit Chattopadhyay and Ujjal Debnath	Generalized second law of thermodynamics in presence of interacting tachyonic field and scalar (phantom) field	*Canadian Journal of Physics,* Vol. 88, No. 12, (2010) 933-938 DOI:10.1139/P10-094
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58	Shuvendu Chakraborty and Ujjal Debnath	Emergent Scenario in Anisotropic Universe	*International Journal of Theoretical Physics,* Vol. 50, No. 1, (2011) 80-87 DOI: 10.1007/s10773-010-0495-y
59	Surajit Chattopadhyay and Ujjal Debnath	Correspondence between Ricci and other dark energies	*International Journal of Theoretical Physics,* Vol. 50, No. 2, (2011) 315-324 DOI:10.1007/s10773-010-0527-7
60	Samarpita Bhattacharya and Ujjal Debnath	Validity of Thermodynamical Laws in Dark Energy Filled Universe	*International Journal of Theoretical Physics,* Vol. 50, No. 2, (2011) 525-536 DOI:10.1007/s10773-010-0564-2
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62	Anup Kumar Singha and Ujjal Debnath	Accelerating Universe in Brans-Dicke Theory in presence of Chaplygin gas	*International Journal of Theoretical Physics,* Vol. 50, No. 5, (2011) 1536-1542 DOI:10.1007/s10773-010-0662-1

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64	Mubasher Jamil and Ujjal Debnath	Interacting Modified Chaplygin gas on loop quantum Cosmology	*Astrophysics and Space Science,* Vol. 333, No. 1, (2011) 3-8 DOI: 10.1007/s10509-011-0651-8
65	Ujjal Debnath	Thermodynamics in Quasi-Spherical Szekeres Space-Time	*Europhysics Letters,* Vol. 94 (2011) 29001(1-5) DOI:10.1209/0295-5075/94/29001
66	Surajit Chattopadhyay and Ujjal Debnath	Emergent Universe in Chameleon, f(R) and f(T) Gravity Theories	*International Journal of Modern Physics D,* Vol. 20, No. 6, (2011) 1135-1152 DOI: 10.1142/S0218271811019293
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68	Ujjal Debnath and Subenoy Chakraborty	Emergent Universe with Exotic Matter in Brane World Scenario	*International Journal of Theoretical Physics,* Vol. 50, No. 9, (2011) 2892-2898 DOI: 10.1007/s10773-011-0789-8
69	Samarpita Bhattacharya and Ujjal Debnath	Thermodynamical Laws in Horava-Lifshitz Gravity	*International Journal of Modern Physics D,* Vol. 20, No. 7, (2011) 1191-1204 DOI: 10.1142/S0218271811019323
70	Muhammad Umar Farooq, Mubasher Jamil and Ujjal Debnath	Dynamics of interacting phantom and quintessence dark energies	*Astrophysics and Space Science,* Vol. 334, No.2, (2011) 243-248 DOI:10.1007/s10509-011-0721-y
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72	Samarpita Bhattacharya and Ujjal Debnath	Brans-Dicke Theory and Thermodynamical Laws on Apparent and Event Horizons	*Canadian Journal of Physics,* Vol. 89, No. 8, (2011) 883-889 DOI: 10.1139/P11-072
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78	Ujjal Debnath	Modified Chaplygin Gas with Variable G and Λ	*Chinese Physics Letters,* Vol. 28, No. 11, (2011) 119801(1-4) DOI: https://doi.org/10.1088/0256-307X/28/11/119801
79	Sayani Maity, Shuvendu Chakraborty and Ujjal Debnath	Correspondence between Electro-Magnetic Field and other Dark Energies in Non-linear Electrodynamics	*International Journal of Modern Physics D,* Vol. 20, No. 12, (2011) 2337-2350 DOI: 10.1142/S0218271811020317
80	Piyali Bagchi Khatua, Shuvendu Chakraborty and Ujjal Debnath	Dilaton Dark Energy Model in f(R), f(T) and Horava-Lifshitz Gravities	*International Journal of Theoretical Physics,* Vol. 51, No. 2, (2012) 405-417 DOI: 10.1007/s10773-011-0917-5

81	Samarpita Bhattacharya and Ujjal Debnath	Thermodynamics of Modified Chaplygin Gas and Tachyonic Field	*International Journal of Theoretical Physics,* Vol. 51, No. 2, (2012) 565-576 DOI: 10.1007/s10773-011-0937-1
82	Samarpita Bhattacharya and Ujjal Debnath	Study of Thermodynamics in Generalized Holographic and Ricci Dark Energy Models	*International Journal of Theoretical Physics,* Vol. 51, No. 2, (2012) 577-588 DOI: 10.1007/s10773-011-0938-0
83	Rahul Ghosh, Surajit Chattopadhyay and Ujjal Debnath	A Dark Energy Model with Generalized Uncertainty Principle in the Emergent, Intermediate and Logamediate Scenarios of the Universe	*International Journal of Theoretical Physics,* Vol. 51, No. 2, (2012) 589-603 DOI: 10.1007/s10773-011-0939-z
84	Jibitesh Dutta and Ujjal Debnath	Reconstruction of Potentials as well as Dynamics of Scalar Fields in DGP Braneworld Model	*International Journal of Theoretical Physics,* Vol. 51, No. 2, (2012) 639-651 DOI: 10.1007/s10773-011-0944-2
85	Ujjal Debnath	Holographic Dark Energy Interacting with Two Fluids and Validity of Generalized Second Law of Thermodynamics	*Astrophysics and Space Science,* Vol. 337, No. 1, (2012) 503-508 DOI: 10.1007/s10509-011-0853-0
86	Arundhati Das, Surajit Chattopadhyay and Ujjal Debnath	Validity of Generalized Second Law of Thermodynamics in the Logamediate and Intermediate Scenarios of the Universe	*Foundations of Physics,* Vol. 42, No.2, (2012) 266-283 DOI: 10.1007/s10701-011-9600-1
87	Ujjal Debnath, Surajit Chattopadhyay, Ibrar Hussain, Mubasher Jamil and Ratbay Myrzakulov	Generalized Second Law of Thermodynamics for FRW Cosmology with Power-Law Entropy Correction	*European Physical Journal C,* Vol. 72, No. 2, (2012) 1875 (1-6) DOI: 10.1140/epjc/s10052-012-1875-7
88	Ujjal Debnath, Mubasher Jamil and Surajit Chattopadhyay	Fractional Action Cosmology: Emergent, Logamediate, Intermediate, Power law Scenarios of the Universe and Generalized Second Law of Thermodynamics	*International Journal of Theoretical Physics,* Vol. 51, No. 3, (2012) 812-837 DOI: https://doi.org/10.1007/s10773-011-0961-1
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197	Ujjal Debnath	Observational Data Analysis for Generalized Cosmic Chaplygin Gas in the Background of Brans-Dicke Theory	*International Journal of Modern Physics A*, Vol. 36, No. 21, (2021) 2150157 (1-15) SCI, IF=1.486 DOI: 10.1142/S0217751X21501578
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200	Sayani Maity and Ujjal Debnath	Generalized Ghost Version of Pilgrim Dark Energy in Loop Quantum Gravity Motivated Cosmology	*Gravitation and Cosmology*, Vol. 27, No. 4 (2021) 375-382 SCIE, IF =0.880 DOI: 10.1134/S0202289321040095
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203	Rahul Ghosh, Ujjal Debnath and Shuvendu Chakraborty	Reconstruction of f(P) gravity from (m,n)-type ordinary and entropy corrected holographic and Pilgrim dark energy models	*International Journal of Modern Physics A*, Vol. 36, No. 29, (2021) 2150198 (1-35) SCI, IF=1.486 DOI: 10.1142/S0217751X21501980
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212	Ujjal Debnath	Constructions of Entropy and Modified Friedmann Equations in Gravity Theories	*International Journal of Geometric Methods in Modern Physics*, Vol. 19, No. 6, (2022) 2250093 (1-24) SCIE, IF=1.287 DOI: 10.1142/S0219887822500931
213	Debojyoti Mondal and Ujjal Debnath	Thermodynamics in Power-Maxwell Charged Ads Black Hole with Quintessence in Rastall Gravity: Heat Engine	*International Journal of Modern Physics A*, Vol. 37, No. 10, (2022) 2250058 (1-13) DOI: 10.1142/S0217751X22500580 SCI, IF=1.486
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222	Ujjal Debnath	General Thermodynamic Properties of FRW Universe and Heat Engine	*Universe,* Vol. 8, No. 8, (2022) 400 (1-10) DOI: https://doi.org/10.3390/universe8080400 SCI, IF=2.8
223	Jhumpa Bhadra, Ujjal Debnath and Anirudh Pradhan	Accretions of (m,n) type Pilgrim dark energies with logarithmic and power-law entropy corrections onto (D+2)-dimensional black hole and wormhole	*Modern Physics Letters A,* Vol. 37, No. 26, (2022) 2250173 (1-16) DOI:10.1142/S0217732322501735 SCI, IF=1.391
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225	Ujjal Debnath, Shuvendu Chakraborty, Sayani Maity and Anirudh Pradhan	Study of Anisotropic Universe in Presence of DBI-essence, Phantom and Tachyonic Fields	*International Journal of Modern Physics A,* Vol. 37, No. 36 (2022) 2250198 (1-26) DOI: 10.1142/S0217751X22501986 SCI, IF=1.486
226	Krishna Pada Das, Sayani Maity, Pameli Saha and Ujjal Debnath	Charged Anisotropic Strange Star in Rastall-Rainbow Gravity	*Modern Physics Letters A,* Vol. 37, No. 30 (2022) 2250201 (1-26) DOI: 10.1142/S0217732322502017 SCI, IF=1.391
227	Pameli Saha, Sayani Maity and Ujjal Debnath	Reconstructing extended f(P) cubic gravity from entropy corrected holographic and new agegraphic dark energy models	*Modern Physics Letters A,* Vol. 37, No. 30 (2022) 2250204 (1-29) DOI: 10.1142/S0217732322502042 SCI, IF=1.391
228	Ujjal Debnath	Higher Dimensional Polytropic and Modified Chaplygin Black Holes: Thermodynamics and Heat Engines	*Modern Physics Letters A,* Vol. 37, Nos. 35 & 36 (2022) 2250243 (1-15) DOI: 10.1142/S0217732322502431 SCI, IF=1.391
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237	Rownak Kundu, Ujjal Debnath and Anirudh Pradhan	Gravitational Lensing: Dark Energy Models in non-flat FRW Universe	*European Physical Journal C* Vol. 83, (2023) 553 (1-16) DOI: https://doi.org/10.1140/epjc/s10052-023-11675-9 SCIE, IF =4.994
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239	Puja Mukherjee, Ujjal Debnath and Anirudh Pradhan	Accretion of Modified Chaplygin-Jacobi Gas and Modified Chaplygin-Abel Gas onto Schwarzschild Black Hole	*International Journal of Geometric Methods in Modern Physics,* Vol. 20, No. 12, (2023) 2350218 (1-13) DOI: 10.1142/S0219887823502183

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246	Dhruv Arora, Niyaz Uddin Molla, Himanshu Chaudhary, Ujjal Debnath, Farruh Atamurotov and G.Mustafa	Exploring Tidal Force Effects and Shadow Constraints for Schwarzschild-like Black Hole in Starobinsky-Bel-Robinson Gravity	*European Physical Journal C*, Vol. 83, (2023) 995 (1-12) DOI: https://doi.org/10.1140/epjc/s10052-023-12185-4 SCIE, IF = 4.994
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248	Himanshu Chaudhary, Saadia Mumtaz, Amine Bouali, Ujjal Debnath and G.Mustafa	Parametrization of the Deceleration Parameter in a Flat FLRW Universe: Constraints and Comparative Analysis with the ΛCDM Paradigm	*General Relativity and Gravitation,* Vol. 55, (2023) 133 (1-29) DOI: https://doi.org/10.1007/s10714-023-03181-w SCIE, IF = 2.84
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253	Krishna Pada Das and Ujjal Debnath	Anisotropic Strange Stars in Extended f(T,B,*T*) Gravity with Electromagnetic Field	*Chinese Journal of Physics*, Vol. 88, (2024) 439-461 DOI:https://doi.org/10.1016/j.cjph.2023.12.018 SCIE, IF = 3.957
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260	Niyaz Uddin Molla, Sushant G. Ghosh and Ujjal Debnath	Testing gravitational lensing effects by supermassive massive black holes with superstring theory metric: astrophysical implications and EHT constraints	*Physics of the Dark Universe*, Vol. 44, (2024) 101495 (1-17) DOI: https://doi.org/10.1016/j.dark.2024.101495 SCIE, IF=5.09

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267	Alashdip Karmakar, Ujjal Debnath and Pramit Rej	Polytropic stellar structure in 5D Einstein-Gauss-Bonnet gravity	*Chinese Journal of Physics,* Vol. 90, (2024) 1125-1142 DOI: https://doi.org/10.1016/j.cjph.2024.05.037 SCIE, IF =3.957
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307	Tamal Mukhopadhyay, Banadipa Chakraborty, Anamika Kotal and Ujjal Debnath	Reconstructions of f(P) and f(Q) gravity models from (m,n)-type Barrow Holographic Dark Energy	*International Journal of Geometric Methods in Modern Physics,* (Accepted) (2025) SCIE, IF =1.287
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All those papers are available at http://inspirehep.net/ or http://www.arXiv.org or http://scholar.google.co.in/

Total No. of Publications in SCI/SCOPUS Journals: 310 (in which joint papers: 274 and single papers: 36)

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