Curriculum Vitae (Details)

Name : Dr. Ujjal Debnath

Father's Name : Kalidas Debnath

Designation : 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 : 50 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.
- Listed in top 2% Scientist recognized by Stanford University in 2020, 2021, 2022, 2023, 2024, 2025.

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 22 February, 2019 to 21 July, 2025, Associate Professor in the Department of Mathematics, Indian Institute of Engineering Science and Technology, Shibpur, Howrah, India
- From 22 July, 2025 to till date, 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 for 05 years from 16th October, 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
37	Lipita Padhan	Physical characteristics of wormhole geometries under Modified Chaplygin-Jacobi Gas Equation of state in the Context of Rastall gravity	May 2025
38	Sushmita Kumari	Black Hole Accreation of Generalized Chaplygin Gas	May 2025
39	Megha Gola	A Dynamical System Approach for Cosmological Models	May 2025
40	Ratna Roy	Big Bang Cosmology	
41	Bhumika Ashtankar	Dark Energy	
42	Shrishti Kumari	Black Hole Accretion	

***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
29	Totan Mahata	Cryptography	May 2025
30	Ratna Roy	Fuzzy Set Theory	May 2025
31	AnkurPandey	Modular Arithmetic Toolkit with Cryptographic Applications	December 2025
32	Naga Sai Sathvika Kodukula	Time Dilation in Special Relativity: A Light-Clock Approach with Illustrative Examples	December 2025
33	Udayan Saha	Ordinary Differential Equations in Real-Life Models	December 2025
34	AnkurPandey	Customer Segmentation Analysis using K-Means Clustering	May 2026
35	Naga Sai Sathvika Kodukula		May 2026
36	Udayan Saha	Mathematical Analysis and Spatial Simulation of Species Invasion using the Fisher-KPP Equation	May 2026

***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
13	Ratna Roy	Study of Big Bang Cosmology	May 2025
14	Bhumika Ashtankar	Dark Energy and the Expanding Universe	May 2025
15	Shrishti Kumari	Black Hole	May 2025
16	Sravanthi Bolleddu	Cosmological Analysis of Dark Energy Models	May 2026
17	Varsha Yadav	A Study of Black Holes in General Relativity	May 2026
18	Ashish Kumar	Dynamical System Analysis in Cosmology	May 2026

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	Niyaz Uddin Molla (CSIR-NET) – OBC	"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)	Ujjal Debnath

	JRF- 10/02/2020 – 28/02/2022 SRF- 01/03/2022 – 28/02/2025		Registration No. 2020MAPR053 w.e.f. 07/12/2020 Thesis Submitted on 18/09/2024	
17	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"	Ph. D **awarded** on 19/11/2025 from IIESTS, India (Enrollment No. 20190017 w.e.f. 17/07/2019) Registration No. 2020MAPR044 w.e.f. 02/10/2020 Thesis Submitted on 20/05/2025	Ujjal Debnath
18	Alok Sardar (CSIR-NET) – SC JRF- 23/07/2019 – 31/07/2021 SRF- 01/08/2021 – 31/07/2025	"Some Theoretical Aspects of Dark Energy and Modified Gravity in the Accelerating Universe"	Ph. D **awarded** on 18/11/2025 from IIESTS, India (Enrollment No. 20190042 w.e.f. 17/07/2019) Registration No. 2020MAPR049 w.e.f. 02/10/2020 Thesis Submitted on 17/06/2025	Ujjal Debnath
19	Krishna Pada Das (UGC-NET) - OBC JRF- 10/02/2020 – 09/02/2022 SRF- 10/02/2022 – 09/02/2025	"A Comprehensive Study of Compact Objects from Various Modified Gravitational Theories"	Ph. D **awarded** on 20/11/2025 from IIESTS, India (Enrollment No. 20200021 w.e.f. 10/02/2020) Registration No. 2020MAPR051 w.e.f. 07/12/2020 Thesis Submitted on 30/06/2025	Ujjal Debnath
20	Debojyoti Mondal (CSIR-NET) – SC JRF- 21/10/2020 – 30/10/2022 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	Dynamical System in Dark Energy and Modified Gravity	**Registered** for Ph. D (Enrollment No. 2022MAP009 w.e.f. 03/08/2022 Registration No. 2023MAPR017	Ujjal Debnath

	SRF- 03/08/2024 – 02/08/2027		w.e.f. 12/06/2023)	
25	Anamika Kotal (Institute Fellow) - OC JRF: 20/01/2023 – 19/01/2025 SRF: 20/01/2025 – 19/01/2028	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: 19/01/2025 – 18/01/2028	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 – 06/08/2025 SRF: 07.08.2025 – 06/08/2028	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 – 06/08/2025 SRF: 01.09.2025 – 31/08/2028	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: 14/12/2023-13/12/2025 SRF: 14/12/2025-13/12/2028	Black Hole Accretion	**Registered** for Ph. D (Enrollment No. 2023MAP010 w.e.f. 14/12/2023 Registration No. 2025MAPR002 w.e.f. 02/12/2024)	Ujjal Debnath
30	Biswajit Sarkar (UGC-NET) – OBC JRF: 14/12/2023-13/12/2025 SRF: 14/12/2025-13/12/2028	Wormhole	**Registered** for Ph. D (Enrollment No. 2023MAP015 w.e.f. 14/12/2023 Registration No. 2025MAPR007 w.e.f. 02/12/2024)	Ujjal Debnath
31	Suibhajit Sarkar (Institute Fellow) – OBC JRF: 31/07/2024-30/07/2026 SRF: 31/07/2026	Inflation, Dark Energy	**Registered** for Ph. D (Enrollment No. 2024MAP010 w.e.f. 31/07/2024 Registration No. 2025MAPR020 w.e.f. 20/06/2025)	Ujjal Debnath
32	Sudipta Jash (Institute Fellow) – OC JRF: 18/07/2025	Dark Energy and Modified Gravity	**Enrolled** for Ph. D (Enrollment No. 2025MAP002 w.e.f. 18/07/2025)	Ujjal Debnath
33	Moumita Dinda (Institute Fellow) – OC JRF: 02/01/2026	Dynamical Systems in Dark Energy and Modified Gravity	**Enrolled** for Ph. D (Enrollment No. 2025MAP009 w.e.f. 02/01/2026)	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:

1. 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.

2. Dr. Pooja Saini, National Post Doctoral Fellow (NPDF) under PAIR project entitle "Exploring fundamental and exotic properties of materials in computer: Direction to laboratory experiments" funded by ANRF, Gov. of India from 02/02/2026 to 01/02/2028.

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,	08 September - 08 October, 2013

			Beijing, China	
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
	23rd Conference of the IAGRG and Symposium on	(i) Varying G and Λ in Brane World Scenario,	University of Rajasthan, Jaipur, Rajasthan,	7-10 December, 2004

10	"Recent Trends in General Relativity, Cosmology and Astrophysics"	(ii) Ph.D Thesis	India	
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 Programme	--	IUCAA, Pune-411 007, India	19 December, 2005 - 3 January, 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	A Quintessence Problem in self-interacting Brans-Dicke theory	*International Journal of Modern Physics A*, Vol. 18, No. 19, (2003) 3315-3323

	and Ujjal Debnath		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.0000010472.10539.46
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
30	Brien C. Nolan and Ujjal Debnath	Is the shell-focusing singularity of Szekeres space-time visible?	*Physical Review D,* Vol. 76, No. 10, (2007) 104046 (1-10) DOI:10.1103/PhysRevD.76.104046
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 DOI:10.1007/s10773-008-9807-x
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
52	Shuvendu Chakraborty and Ujjal Debnath	Higher Dimensional Cosmology with Normal Scalar Field and Tachyonic Field	*International Journal of Theoretical Physics,* Vol. 49, (2010) 1693-1698 DOI:10.1007/s10773-010-0348-8
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
57	Surajit Chattopadhyay and Ujjal Debnath	Generalized second law of thermodynamics in presence of interacting DBI essence and other dark energies	*International Journal of Modern Physics A,* Vol. 25, No. 30, (2010) 5557-5566 DOI: 10.1142/S0217751X10050998
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
61	Piyali Bagchi Khatua and Ujjal Debnath	Dynamics of Logamediate and Intermediate Scenarios in the Dark Energy Filled Universe	*International Journal of Theoretical Physics,* Vol. 50, No. 3, (2011) 799-832 DOI:10.1007/s10773-010-0617-6
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
63	Mubasher Jamil and Ujjal Debnath	FRW Cosmology with Variable G and Λ	*International Journal of Theoretical Physics,* Vol. 50, No. 5, (2011) 1602-1613 DOI: 10.1007/s10773-011-0670-9
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
67	Shuvendu Chakraborty and Ujjal Debnath	Brans-Dicke Theory in Anisotropic Model with Viscous Fluid	*Gravitation and Cosmology,* Vol. 17, No. 3, (2011) 280-283 DOI: 10.1134/S0202289311030029
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
71	Surajit Chattopadhyay and Ujjal Debnath	Interaction between Tachyon and Hessence (or Hantom) Dark Energies	*International Journal of Theoretical Physics,* Vol. 50, No. 10, (2011) 3166-3175 DOI: 10.1007/s10773-011-0819-6
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
73	Ujjal Debnath and Mubasher Jamil	Correspondence between DBI-essence and Modified Chaplygin Gas and the Generalized Second Law of Thermodynamics	*Astrophysics and Space Science,* Vol. 335, No. 2, (2011) 545-552 DOI: 10.1007/s10509-011-0749-z
74	Ujjal Debnath and Surajit Chattopadhyay	Generalized Second Law of Thermodynamics in Emergent Universe	*International Journal of Theoretical Physics,* Vol. 50, No. 11, (2011) 3415-3420 DOI: 10.1007/s10773-011-0846-3
75	Prabir Rudra, Ritabrata Biswas and Ujjal Debnath	Gravitational Collapse in Generalized Vaidya Space-Time for Lovelock Gravity Theory	*Astrophysics and Space Science,* Vol. 335, No. 2, (2011) 505-513 DOI: 10.1007 s10509-011-0759-x
76	Ujjal Debnath and Surajit Chattopadhyay	Role of generalized Ricci dark energy on Chameleon field in the emergent universe	*Canadian Journal of Physics,* Vol. 89, No. 9, (2011) 941-948 DOI: 10.1139/P11-075

77	Tanwi Bandyopadhyay and Ujjal Debnath	A Study of Generalized Second Law of Thermodynamics in Magnetic Universe in the light of Non-Linear Electrodynamics	*Physics Letters B,* Vol. 704, No. 3, (2011) 95-101 DOI: 10.1016/j.physletb.2011.08.076
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
89	Jhumpa Bhadra and Ujjal Debnath	Dynamical System Analysis of Interacting Variable Modified Chaplygin Gas Model in FRW Universe	*European Physical Journal Plus,* Vol. 127, No. 3, (2012) 30 (1-15) DOI:10.1140/epjp/i2012-12030-2
90	Piyali Bagchi Khatua and Ujjal Debnath	Statefinder Description in Generalized Holographic and Ricci Dark Energy Models	*International Journal of Theoretical Physics,* Vol. 51, No. 4, (2012) 1155-1172 DOI: 10.1007/s10773-011-0992-7
91	Jhumpa Bhadra and Ujjal Debnath	Accretion of New Variable Modified Chaplygin Gas and Generalized Cosmic Chaplygin Gas onto Schwarzschild and Kerr-Newman Black holes	*European Physical Journal C,* Vol. 72, No.2, (2012) 1912 (1-9) DOI: 10.1140/epjc/s10052-012-1912-6
92	Mubasher Jamil, M. Raza and Ujjal Debnath	Statefinder Parameter for Varying *G* in Three Fluid System	*Astrophysics and Space Science,* Vol. 337, No. 2, (2012) 799-803 DOI: 10.1007/s10509-011-0896-2
93	Shuvendu Chakraborty and Ujjal Debnath	The Effects of Tachyonic and Phantom Fields in the Intermediate and	*International Journal of Theoretical Physics,* Vol. 51, No. 4, (2012) 1224-1238

		Logamediate Scenarios of the Anisotropic Universe	DOI: 10.1007/s10773-011-0998-1
94	Shuvendu Chakraborty and Ujjal Debnath	Role of Chameleon Field in presence of Variable Modified Chaplygin gas in Brans-Dicke Theory	*Canadian Journal of Physics,* Vol. 90, No. 2, (2012) 131-135 DOI: 10.1139/p11-150
95	Prabir Rudra, Ritabrata Biswas and Ujjal Debnath	Dynamics of Modified Chaplygin Gas in Brane World Scenario: Phase Plane Analysis	*Astrophysics and Space Science*, Vol. 339, No. 1, (2012) 54-64 DOI: 10.1007/s10509-011-0967-4
96	Piyali Bagchi Khatua and Ujjal Debnath	Some Features of New Holographic Dark Energy Model in Horava-Lifshitz Gravity	*Astrophysics and Space Science*, Vol. 339, No. 1, (2012) 65-78 DOI: 10.1007/s10509-011-0972-7
97	Ujjal Debnath, Prabir Rudra and Ritabrata Biswas	Nature of Singularity formed by the Gravitational Collapse in Husain Space-Time with Electro-Magnetic Field and Scalar Field	*Astrophysics and Space Science*, Vol. 339, No. 1, (2012) 135-141 DOI: 10.1007/s10509-012-0975-z
98	Chayan Ranjit, Shuvendu Chakraborty and Ujjal Debnath	Higher Dimensional Cosmology with Some Dark Energy Models in Emergent, Logamediate and Intermediate Scenarios of the Universe	*International Journal of Theoretical Physics,* Vol. 51, No. 7, (2012) 2180-2207 DOI: 10.1007/s10773-012-1099-5
99	Shuvendu Chakraborty, Ujjal Debnath, Mubasher Jamil and Ratbay Myrzakulov	Statefinder Parameters for Different Dark Energy Models with Variable G Correction in Kaluza-Klein Cosmology	*International Journal of Theoretical Physics,* Vol. 51, No. 7, (2012) 2246-2255 DOI: 10.1007/s10773-012-1104-z
100	Shuvendu Chakraborty, Ujjal Debnath, Mubasher Jamil	Variable *G* Correction for Dark Energy Model in Higher Dimensional Cosmology	*Canadian Journal of Physics,* Vol. 90, No. 4, (2012) 365-371 DOI: 10.1139/p2012-027
101	Surajit Chattopadhyay, Ujjal Debnath and Samarpita Bhattacharya	Study of Thermodynamic Quantities in Generalized Gravity Theories	*International Journal of Theoretical Physics,* Vol. 51, No. 10, (2012) 3168-3185 DOI: 10.1007/s10773-012-1198-3
102	Shuvendu Chakraborty, Ujjal Debnath and Chayan Ranjit	Observational Constraints of Modified Chaplygin Gas in Loop Quantum Cosmology	*European Physical Journal C,* Vol. 72, No. 8, (2012) 2101 (1-8) DOI: 10.1140/epjc/s10052-012-2101-3
103	Jhumpa Bhadra and Ujjal Debnath	Dynamical Study of DBI-essence in Loop Quantum Cosmology and Braneworld Model	*European Physical Journal C,* Vol. 72, (2012) 2087 (1-13) DOI: 10.1140/epjc/s10052-012-2087-x
104	Prabir Rudra, Ujjal Debnath and Ritabrata Biswas	Presence of Dark Energy and Dark Matter: Does Cosmic Acceleration signifies a Weak Gravitational Collapse?	*Astrophysics and Space Science,* Vol. 342, No. 2, (2012) 557-574 DOI: 10.1007/s10509-012-1194-3
105	Piyali Bagchi Khatua and Ujjal Debnath	Natures of Statefinder Parameters and *Om* Diagnostic for Cardassian Universe in Horava-Lifshitz Gravity	*International Journal of Theoretical Physics,* Vol. 51, No. 12, (2012) 3701-3720 DOI: 10.1007/s10773-012-1254-z
106	Kazuharu Bamba, Ujjal Debnath, Kuralay Yesmakhanova, Petr Tsyba, Gulgasyl Nugmanova and Ratbay Myrzakulov	Periodic Cosmological Evolutions of Equation of State for Dark Energy	Special issue "Modified Gravity: From Black Holes Entropy to Current Cosmology" of *Entropy,* Vol. 14, (2012) 2351 – 2374 DOI: 10.3390/e14112351
107	Surajit Chattopadhyay, Ujjal Debnath and Samarpita Bhattacharya	Study of Thermodynamic Quantities in Horava-Lifshitz and $f(R)$ Gravity Theories	*Journal of Physics: Conference Series,* Vol. 405, (2012) 012007 (1-4) DOI: doi:10.1088/1742-6596/405/1/012007
108	Piyali Bagchi Khatua, Shuvendu Chakraborty and Ujjal Debnath	Role of Entropy-Corrected New Agegraphic Dark Energy in Horava-Lifshitz Gravity	*International Journal of Theoretical Physics,* Vol. 52, No. 2, (2013) 654-667 DOI: 10.1007/s10773-012-1373-6

109	Chayan Ranjit, Shuvendu Chakraborty and Ujjal Debnath	Variable Modified Chaplygin Gas in Anisotropic Medium with Kaluza-Klein Metric	*International Journal of Theoretical Physics,* Vol. 52, No. 3, (2013) 862-876 DOI: 10.1007/s10773-012-1395-0
110	Ujjal Debnath and Surajit Chattopadhyay	Statefinder and Om Diagnostics for Interacting New Holographic Dark Energy Model and Generalized Second Law of Thermodynamics	*International Journal of Theoretical Physics,* Vol. 52, No. 4, (2013) 1250-1264 DOI: 10.1007/s10773-012-1440-z
111	Sayani Maity and Ujjal Debnath	Correspondence between Fermionic Field and other Dark Energies	*Astrophysics and Space Science,* Vol. 345, No. 2, (2013) 399-403 DOI: 10.1007/s10509-013-1395-4
112	Ujjal Debnath, Surajit Chattopadhyay and Mubasher Jamil	Fractional Action Cosmology: Some Dark Energy Models in Emergent, Logamediate and Intermediate Scenarios of the Universe	*Journal of Theoretical and Applied Physics*, Vol. 7, No. 1, (2013) 25 (1-19) DOI: 10.1186/2251-7235-7-25
113	Sayani Maity and Ujjal Debnath	Roles of Different Forms of Scale Factor in Non-linear Electrodynamics for Accelerating Universe	*International Journal of Theoretical Physics,* Vol. 52, No. 7, (2013) 2485-2495 DOI: 10.1007/s10773-013-1536-0
114	Chayan Ranjit, Shuvendu Chakraborty and Ujjal Debnath	Observational Study of Higher Dimensional Magnetic Universe in Non-linear Electrodynamics	*Astrophysics and Space Science,* Vol. 346, No. 1, (2013) 291-299 DOI : 10.1007/s10509-013-1441-2
115	Ritabrata Biswas and Ujjal Debnath	Constraining Red-shift Parametrization Parameters of Dark Energy: Loop Quantum Gravity as Background	*European Physical Journal C*, Vol. 24, (2013) 2424 (1-9) DOI: 10.1140/epjc/s10052-013-2424-8
116	Jhumpa Bhadra, Shuvendu Chakraborty and Ujjal Debnath	Dynamical System Analysis for Anisotropic Universe in Brans-Dicke Theory	*International Journal of Theoretical Physics,* Vol. 52, No. 9, (2013) 3353-3365 DOI: 10.1007/s10773-013-1632-1
117	Chayan Ranjit, Shuvendu Chakraborty and Ujjal Debnath	Observational Constraints of Homogeneous Higher Dimensional Cosmology with Modified Chaplygin Gas	*European Physical Journal Plus,* Vol. 128, (2013) 53 (1- 9) DOI: 10.1140/epjp/i2013-13053-9
118	Jhumpa Bhadra and Ujjal Debnath	Primordial Black Holes Evolution in $f(T)$ Gravity	*International Journal of Theoretical Physics,* Vol. 53, No. 2, (2014) 645-651 DOI: 10.1007/s10773-013-1852-4
119	Ujjal Debnath and Sayani Maity	Correspondence of F-essence with Chaplygin Gas Cosmology	*European Physical Journal Plus,* Vol. 129 (2014) 14 (1-7) DOI: 10.1140/epjp/i2014-14014-6
120	Tanwi Bandyopadhyay and Ujjal Debnath	Thermodynamic Study of Non-Linear Electrodynamics in Loop Quantum Cosmology	*Astrophysics and Space Science,* Vol. 350, No. 2, (2014) 813-819 DOI: 10.1007/s10509-014-1784-3
121	Jhumpa Bhadra and Ujjal Debnath	Constraining the Parameters of New Variable Modified Chaplygin Gas Model	*International Journal of Theoretical Physics,* Vol. 53, No. 6, (2014) 1821-1831 DOI: 10.1007/s10773-013-1982-8
122	Ujjal Debnath	Thermodynamics in Higher Dimensional Vaidya Space-Time	*International Journal of Theoretical Physics,* Vol. 53, No. 6, (2014) 2108-2117 DOI: 10.1007/s10773-014-2016-x
123	Prabir Rudra and Ujjal Debnath	Gravitational Collapse with Dark Energy and Dark Matter with Horava-Lifshitz Gravity	*International Journal of Theoretical Physics,* Vol.53, No.8 (2014) 2668-2687 DOI: 10.1007/s10773-014-2063-3
124	Rahul Ghosh and Ujjal Debnath	Reconstruction of f(G) gravity with ordinary and entropy corrected (m,n) type Holographic dark energy model	*European Physical Journal Plus,* Vol. 129 (2014) 81 (1-9) DOI: 10.1140/epjp/i2014-14081-7
125	Ritabrata Biswas and Ujjal Debnath	Constraining Red-shift Parametrization Parameters in Brans-Dicke Theory: Evolution of Open Confidence Contours	*Astrophysics and Space Science,* Vol. 353, No.2, (2014) 721-730 DOI: 10.1007/s10509-014-2089-2

126	Ujjal Debnath	Accretions of Various Types of Dark Energies onto Morris-Thorne Wormhole	*European Physical Journal C,* Vol. 74, (2014) 2869 (1-8) DOI: 10.1140/epjc/s10052-014-2869-4
127	Ujjal Debnath	Reconstructions of Einstein-Aether Gravity from Ordinary and Entropy-Corrected versions of Holographic and New Agegraphic Dark Energy Models	*Advances in High Energy Physics,* Vol. 2014 (2014) 475862 (1-10) DOI: http://dx.doi.org/10.1155/2014/475862
128	Chayan Ranjit and Ujjal Debnath	Reconstruction of Einstein-Aether Gravity from other Modified Gravity Models	*European Physical Journal Plus,* Vol. 129, (2014) 235 (1-13) DOI: 10.1140/epjp/i2014-14235-7
129	Prabir Rudra and Ujjal Debnath	Gravitational Collapse in Vaidya Space-Time for Galileon Gravity Theory	*Canadian Journal of Physics,* Vol. 92, No. 11, (2014) 1474-1480 DOI: 10.1139/cjp-2014-0111
130	Ujjal Debnath, Mubasher Jamil, Ratbay Myrzakulov and M. Akbar	Thermodynamics of Evolving Lorentzian Wormhole at Apparent and Event Horizons	*International Journal of Theoretical Physics,* Vol. 53, No. 12, (2014) 4083-4094 DOI: 10.1007/s10773-014-2159-9
131	Ujjal Debnath	New Holographic Dark Energy in Chern-Simons Gravity and Cosmography	*International Journal of Theoretical Physics*, Vol. 53, No. 12, (2014) 4275-4290 DOI: 10.1007/s10773-014-2178-6
132	Abdul Jawad and Ujjal Debnath	Correspondence of $f(R,\nabla R)$ Modified Gravity with Scalar Field Models	*Advances in High Energy Physics,* Vol. 2014 (2014) 594781 (1-11) DOI: http://dx.doi.org/10.1155/2014/594781
133	Chayan Ranjit, Prabir Rudra and Ujjal Debnath	Study of Some Parameters of Modified Chaplygin Gas in Galileon Gravity Theory from Observational Perspective	*Canadian Journal of Physics,* Vol. 92, No. 12 (2014) 1667-1675 DOI: 10.1139/cjp-2014-0287
134	Ujjal Debnath	Reconstructions of Scalar Field Dark Energy Models from New Holographic Dark Energy in Galileon Universe	*European Physical Journal Plus,* Vol. 129 (2014) 272 (1-13) DOI: 10.1140/epjp/i2014-14272-2
135	Prabir Rudra, Ritabrata Biswas and Ujjal Debnath	Gravitational Collapse in Husain space-time for Brans-Dicke Gravity Theory with Power-law Potential	*Astrophysics and Space Science,* Vol. 354 (2014) 597-606 DOI: 10.1007/s10509-014-2101-x
136	Chayan Ranjit and Ujjal Debnath	Constraining Parameters of Generalized Cosmic Chaplygin Gas in Loop Quantum Cosmology	*Astrophysics and Space Science,* Vol. 354, (2014) 651-664 DOI: 10.1007/s10509-014-2126-1
137	Ujjal Debnath	Constraining the Parameters of Modified Chaplygin Gas in Einstein-Aether Gravity	*Advances in High Energy Physics,* Vol. 2014, (2014) 653630 (1-8) DOI: http://dx.doi.org/10.1155/2014/653630
138	Ujjal Debnath	Observational Constraints of Modified Chaplygin Gas in Chern-Simons Gravity	*International Journal of Theoretical Physics*, Vol. 54, No. 1 (2015) 22-35 DOI: 10.1007/s10773-014-2195-5
139	Ritabrata Biswas and Ujjal Debnath	Observational Constraints of Redshift Parametrization Parameters of Dark Energy in Horava-Lifshitz Gravity	*International Journal of Theoretical Physics,* Vol. 54, No. 2 (2015) 341-357 DOI: 10.1007/s10773-014-2229-z
140	Ujjal Debnath and B. C. Paul	Evolution of Primordial Black Hole in Modified Chaplygin Gas in the Background of f(T) Gravity	*Astrophysics and Space Science,* Vol. 355, No. 1 (2015) 147-153 DOI: 10.1007/s10509-014-2146-x
141	Ujjal Debnath	Reconstructing f(R), f(G), f(T) and Einstein-Aether Gravities from Entropy-Corrected (m,n) type Pilgrim Dark Energy	*Astrophysics and Space Science,* Vol. 355, No. 2 (2015) 405-411 DOI: 10.1007/s10509-014-2164-8
142	Ujjal Debnath	Accretion and Evaporation of Modified Hayward Black Hole	*European Physical Journal C,* Vol. 75, No. 3 (2015) 129 (1-5) DOI: 10.1140/epjc/s10052-015-3349-1

143	Tanwi Bandyopadhyay, Ujjal Debnath, Mubasher Jamil, Faiz-ur-Rahman and Ratbay Myrzakulov	Generalized Second Law of Thermodynamics of an Evolving Wormhole with Entropy Corrections	*International Journal of Theoretical Physics,* Vol. 54, No. 6, (2015) 1750-1761 DOI: 10.1007/s10773-014-2378-0
144	Ujjal Debnath	Correspondence between Einstein-Aether Gravity and Scalar Field Dark Energies	*International Journal of Theoretical Physics,* Vol. 54, No. 7, (2015) 2150-2169 DOI: 10.1007/s10773-014-2427-8
145	Sayani Maity and Ujjal Debnath	Correspondence between Generalized Dark Energy and Scalar Field Dark Energies	*International Journal of Theoretical Physics,* Vol. 54, No. 7, (2015) 2240-2254 DOI: 10.1007/s10773-014-2441-x
146	Abdul Jawad and Ujjal Debnath	New Agegraphic Version of Pilgrim Dark Energy Model in $f(T,T_G)$ Gravity	*Communications in Theoretical Physics,* Vol. 64, No. 2, (2015) 145-150 DOI: 10.1088/0253-6102/64/2/145
147	Ujjal Debnath	Accretion of Dark Energy onto Higher Dimensional Charged BTZ Black Hole	*European Physical Journal C,* Vol. 75, (2015) 449 (1-8) DOI: 10.1140/epjc/s10052-015-3678-0
148	Sudipta Das, Ujjal Debnath and Abdulla Al Mamon	Generalized Second Law of Thermodynamics for Non-canonical Scalar Field Model with Corrected-Entropy	*European Physical Journal C,* Vol. 75, (2015) 504 (1-8) DOI: 10.1140/epjc/s10052-015-3730-0
149	Abdul Jawad, Ujjal Debnath and Fazal Batool	Generalized Ghost Pilgrim Scalar Field Models of Dark Energy	*Communications in Theoretical Physics,* Vol. 64, No. 5, (2015) 590-596 DOI: 10.1088/0253-6102/64/5/590
150	Mahasweta Biswas and Ujjal Debnath	Analysis of Generalized Ghost Dark Energy in LQC and Galileon Gravity	*Communications in Theoretical Physics,* Vol. 65, No. 1, (2015) 121-126 DOI: 10.1088/0253-6102/65/1/121
151	Ujjal Debnath	Accretion of Dark Energy onto (n+2)-dimensional Schwarzschild Black Hole and Morris-Thorne Wormhole	*Astrophysics and Space Science,* Vol. 360, (2015) 40 (1-9) DOI: 10.1007/s10509-015-2552-8
152	Sayani Maity and Ujjal Debnath	Correspondence of F-essence with Holographic and New Agegraphic Dark Energy Models	*International Journal of Theoretical Physics,* Vol. 55, No. 2, (2016) 698 – 705 DOI: 10.1007/s10773-015-2706-z
153	Pameli Saha and Ujjal Debnath	Study of Entropy-Corrected Logarithmic and Power-Law Versions of Pilgrim Dark Energy	*International Journal of Theoretical Physics,* Vol. 55, No. 3, (2016) 1285-1299 DOI: 10.1007/s10773-015-2769-x
154	Behnam Pourhassan, Mir Faizal and Ujjal Debnath	Effects of Thermal Fluctuations on the Thermodynamics of Modified Hayward Black Hole	*European Physical Journal C,* Vol. 76, (2016) 145 (1-6) DOI: 10.1140/epjc/s10052-016-3998-8
155	Sayani Maity and Ujjal Debnath	Co-existence of Modified Chaplygin Gas and other Dark Energies in th Framework of Fractal Universe	*International Journal of Theoretical Physics,* Vol. 55, No. 5, (2016) 2668-2681 DOI: 10.1007/s10773-015-2901-y
156	Ujjal Debnath	Entropy Bound of Horizons for Accelerating, Rotating and Charged Plebanski-Demianski Black Hole	*Annals of Physics,* Vol. 372, (2016) 449-456 DOI:10.1016/j.aop.2016.06.014
157	Jyotirmay Das Mandal and Ujjal Debnath	Study of Tachyon Warm Intermediate and Logamediate Inflationary Universe Model from Loop Quantum	*Communications in Theoretical Physics,* Vol. 66, No. 2, (2016) 256-262

		Cosmological Perspective	DOI: https://doi.org/10.1088/0253-6102/66/2/256
158	Pameli Saha and Ujjal Debnath	Reconstructions of f(T) Gravity from Entropy Corrected Holographic and New Agegraphic Dark Energy Models in Power-law and Logarithmic Versions	*European Physical Journal C,* Vol. 76, (2016) 491 (1-14) DOI: 10.1140/epjc/s10052-016-4324-1
159	Pameli Saha and Ujjal Debnath	Correspondence between Yang-Mills condensate dark energy with various kinds of scalar field models of dark energy	*Communications in Theoretical Physics,* Vol. 66, No. 5, (2016) 579-588 DOI: 10.1088/0253-6102/66/5/579
160	Abdul Jawad, Farhad Ali , Mubasher Jamil and Ujjal Debnath	Dynamics of Particles Around a Regular Black Hole with Non-linear Electrodynamics	*Communications in Theoretical Physics,* Vol. 66, No. 5, (2016) 509-516 DOI: 10.1088/0253-6102/66/5/509
161	Jyotirmay Das Mandal and Ujjal Debnath	Analysing Hessence Intermediate and Logamediate Universe in Loop Quantum Cosmological Background	*International Journal of Theoretical Physics,* Vol. 56, No. 6, (2017) 1771-1783 DOI: 10.1007/s10773-017-3324-8
162	Jyotirmay Das Mandal and Ujjal Debnath	A Note on Equivalence Among Various Scalar Field Models of Dark Energies	*International Journal of Theoretical Physics,* Vol. 56, No. 8, (2017) 2413-2422 DOI: 10.1007/s10773-017-3392-9
163	Jyotirmay Das Mandal and Ujjal Debnath	Dynamical System Analysis of Interacting Hessence Dark Energy in f(T) Gravity	*Advances in High Energy Physics,* Vol. 2017, (2017) 2864784 (1-14) DOI: https://doi.org/10.1155/2017/2864784
164	Chayan Ranjit and Ujjal Debnath	Analysis of Interacting Entropy-Corrected Holographic and New Agegraphic Dark Energies	*International Journal of Modern Physics D,* Vol. 27, No. 4, (2018) 1850035 (1-23) DOI: https://doi.org/10.1142/S0218271818300033
165	Pameli Saha and Ujjal Debnath	Anisotropic Quintessence Strange Stars in f(T) gravity with Modified Chaplygin Gas	*Advances in High Energy Physics,* Vol. 2018, (2018) 3901790 (1-13) DOI: https://doi.org/10.1155/2018/3901790
166	Tanwi Bandyopadhyay and Ujjal Debnath	Bouncing Universe in the Contexts of Generalized Cosmic Chaplygin Gas and Variable Modified Chaplygin Gas	*Canadian Journal of Physics,* Vol. 97, No. 3, (2019) 286-296 SCI, IF=1.032 DOI: 10.1139/cjp-2017-1008
167	Tanwi Bandyopadhyay and Ujjal Debnath	Parameterizing Dark Energy Models and Study of Finite Time Future Singularities	*Advances in High Energy Physics,* Vol. 2019, (2019) 5393491(1-12) SCIE, IF =1.422 DOI: https://doi.org/10.1155/2019/5393491
168	Behnam Pourhassan and Ujjal Debnath	Particle Acceleration in Rotating Modified Hayward and Bardeen Black Holes	*Gravitation and Cosmology,* Vol. 25, No. 2, (2019) 196-204 SCIE, IF =0.880 DOI: https://link.springer.com/article/10.1134/S0202289319020129
169	Pameli Saha and Ujjal Debnath	Collision of particles near charged MSW Black Hole in 2+1 dimensions	*Modern Physics Letters A,* Vol. 34, (2019) 1950127 (1-15) SCI, IF=1.391 DOI: https://doi.org/10.1142/S021773231950127X
170	Ujjal Debnath	Charge Gravastars in f(T) Modified Gravity	*European Physical Journal C,* Vol. 79, (2019) 499 (1-9) SCI, IF=4.389 DOI: 10.1140/epjc/s10052-019-7013-z

171	Mahasweta Biswas, Ujjal Debnath, Shounak Ghosh and B. K. Guha	Study of QCD Generalized Ghost Dark Energy in FRW Universe	*European Physical Journal C* Vol. 79, (2019) 659 (1-9) SCI, IF=4.389 DOI: https://doi.org/10.1140/epjc/s10052-019-7147-z
172	Ujjal Debnath and Kazuharu Bamba	Parametrizations of Dark Energy Models in the Background of General Non-canonical Scalar Field in *D*-dimensional Fractal Universe	*European Physical Journal C* Vol. 79, No. 8, (2019) 722 (1-14) SCI, IF=4.389 DOI: 10.1140/epjc/s10052-019-7172-y
173	Sayani Maity and Ujjal Debnath	Tsallis, Rényi and Sharma-Mittal Holographic and New Agegraphic Dark Energy Models in D-dimensional Fractal Universe	*European Physical Journal Plus* Vol. 134, No. 10, (2019) 514 (1-20) SCI, IF=3.228 DOI: https://doi.org/10.1140/epjp/i2019-12884-6
174	Binod Chetry, Jibitesh Dutta, Ujjal Debnath and Wompherdeiki Khyllep	Thermodynamic and Observational Constraints of DGP braneworld in the light of nonlinear electrodynamics	*International Journal of Geometric Methods in Modern Physics,* Vol. 16, No. 11, (2019) 1950173 (1-38) SCIE, IF=1.287 DOI: 10.1142/S0219887819501731
175	Mahasweta Biswas, Ujjal Debnath and Shounak Ghosh	Generalized Ghost Dark Energy in DGP Model	*International Journal of Geometric Methods in Modern Physics,* Vol. 16, No. 11, (2019) 1950178(1-20) SCIE, IF=1.287 DOI: https://doi.org/10.1142/S0219887819501780
176	Pameli Saha and Ujjal Debnath	Study of Anisotropic Compact Stars with Quintessence Field and Modified Chaplygin Gas in f(T) Gravity	*European Physical Journal C,* Vol. 79, No. 11, (2019) 919 (1-16) SCI, IF=4.389 DOI: 10.1140/epjc/s10052-019-7427-7
177	Ujjal Debnath	Particles Collision near Kerr-Sen Dilaton-Axion Black Hole	*Modern Physics Letters A,* Vol. 35, No.07, (2019) 2050033 (1-15) SCI, IF=1.391 DOI: 10.1142/S0217732320500339
178	Ujjal Debnath	Entropy Bound of Horizons of Some Regular Black Holes	*Modern Physics Letters A,* Vol. 35, No. 10, (2019) 2050070 (1-20) SCI, IF=1.391 DOI: 10.1142/S0217732320500704
179	Ujjal Debnath	Gravitational Waves for Variable Modified Chaplygin Gas and Some Parametrizations of Dark Energy in the Background of FRW Universe	*European Physical Journal Plus,* Vol. 135, No. 2, (2020) 135 (1-22) SCI, IF=3.228 DOI: https://doi.org/10.1140/epjp/s13360-020-00219-9
180	Ujjal Debnath	Accretions of Some Classes of Holographic Dark Energy onto Higher Dimensional Schwarzschild Black Hole	*Gravitation and Cosmology,* Vol. 26, No. 1, (2020) 75-81 SCIE, IF =0.880 DOI: 10.1134/S0202289320010041
181	Ujjal Debnath	Thermodynamic Black Hole with Modified Chaplygin Gas as a Heat Engine	*European Physical Journal Plus,* Vol. 135, No. 6, (2020) 424 (1- 12) SCI, IF=3.228 DOI: https://doi.org/10.1140/epjp/s13360-020-00416-6
182	Ujjal Debnath and Soumyadipta Basak	Nature of Higher Dimensional Wormhole Mass due to Accretions of Entropy Corrected Holographic and New Agegraphic Dark Energies	*Gravitation and Cosmology,* Vol. 26, No. 3, (2020) 285-295 SCIE, IF =0.880 DOI: http://link.springer.com/article/10.1134/S0202289320030056

183	Ujjal Debnath	Thermodynamics of FRW Universe: Heat Engine	*Physics Letters B,* Vol. 810, (2020) 135807 (1-5) SCI, IF=4.384 DOI: https://doi.org/10.1016/j.physletb.2020.135807
184	Ines G. Salako, Maxim Khlopov, M. Z. Arouko, Saibal Ray, Pameli Saha and Ujjal Debnath	Study on anisotropic strange stars in f(T,*T*) gravity	*Universe*, Vol. 6, (2020) 167 (1-23) SCIE, IF=1.752 DOI: https://doi.org/10.3390/universe6100167
185	Sayani Maity and Ujjal Debnath	Study of Tsallis, Rényi and Sharma-Mittal Holographic dark Energies for Entropy Corrected Modified Field Equations in Horava-Lifshitz Gravity	*International Journal of Geometric Methods in Modern Physics,* Vol. 17, No. 11, (2020) 2050170 (1-21) SCIE, IF=1.287 DOI: https://dx.doi.org/10.1142/S0219887820501704
186	Sayani Maity, Mahasweta Biswas and Ujjal Debnath	Analysis of Entropy Corrected Holographic and New Agegraphic Dark Energy Models in Generalized Rastall Gravity	*International Journal of Modern Physics A,* Vol. 35, No. 28, (2020) 2050175 (1-29) SCI, IF=1.486 DOI: 10.1142/S0217751X20501754
187	Tanwi Bandyopadhyay and Ujjal Debnath	Bouncing Cosmology for Entropy Corrected Models in Horava-Lifshitz Gravity and Fractal Universe	*European Physical Journal Plus,* Vol. 135, No. 7, (2020) 613 (1-26) SCI, IF=3.228 DOI: https://doi.org/10.1140/epjp/s13360-020-00618-y
188	Ujjal Debnath	Constructions of f(R,G,*T*) Gravity from Some Expansions of the Universe	*International Journal of Modern Physics A,* Vol. 35, No. 31, (2020) 2050203 (1-19) SCI, IF=1.486 DOI: 10.1142/S0217751X20502036
189	Saibal Ray, Anil K. Yadav, Farook Rahaman and Ujjal Debnath	Nonsingular solution with anisotropic fluid in Mini Bang cosmology	*International Journal of Modern Physics D*, Vol. 29, No. 16 , (2020) 2050118 (1-12) SCI, IF=2.154 DOI: https://doi.org/10.1142/S0218271820501187
190	Ujjal Debnath	Motion and Collision of Particles near Plebanski-Demianski Black Hole: Shadow and Gravitational Lensing	*Chinese Journal of Physics*, Vol. 70, (2021) 213-231 SCI, IF=2.638 DOI: https://doi.org/10.1016/j.cjph.2020.09.037
191	Ujjal Debnath	Constraining the Parameters of Modified Chaplygin Gas in Brans-Dicke Theory	*Physics of the Dark Universe,* Vol. 31, (2021) 100764 (1-6) SCIE, IF=4.473 DOI: https://doi.org/10.1016/j.dark.2020.100764
192	Tanwi Bandyopadhyay and Ujjal Debnath	Accretions of Tsallis, Renyi and Sharma-Mittal Dark Energies onto Higher Dimensional Schwarzschild Black Hole and Morris-Thorne Wormhole	*Modern Physics Letters A*, Vol. 36, No. 12, (2021) 2150081 (1-21) SCI, IF=1.391 DOI: https://doi.org/10.1142/S0217732321500814

193	Ujjal Debnath	Charged Gravastars in Rastall-Rainbow Gravity	*European Physical Journal Plus*, Vol. 136, (2021) 442 (1-23) SCI, IF=3.228 DOI: https://doi.org/10.1140/epjp/s13360-021-01460-6
194	Ujjal Debnath	Gravitational waves for some dark energy models in FRW Universe	*Physics of the Dark Universe,* Vol. 32, (2021) 100832 (1-7) SCIE, IF=4.473 DOI: https://doi.org/10.1016/j.dark.2021.100832
195	Sayani Maity and Ujjal Debnath	Gravitational Baryogenesis and Leptogenesis in 4-dimensional Fractal Universe	*Gravitation and Cosmology*, Vol 27, No. 2, (2021) 178-185 SCIE, IF =0.880 DOI: 10.1134/S0202289321020109
196	Tanusree Roy and Ujjal Debnath	Van der Waals Black Hole as a Heat Engine	*International Journal of Modern Physics A*, Vol. 36, No. 17, (2021) 2150114 (1-19) SCI, IF=1.486 DOI: 10.1142/S0217751X21501141
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
198	Jyotirmay Das Mandal, Mahasweta Biswas and Ujjal Debnath	Dynamical System Analysis of Arbitrary Dark Energy and Coincidence Problem	*International Journal of Modern Physics A*, Vol. 36, No. 23, (2021) 2150159 (1-14) SCI, IF=1.486 DOI: 10.1142/S0217751X21501591
199	Alok Sardar and Ujjal Debnath	Cosmological consequence of Renyi, Sharma-Mittal Holographic and New Agegraphic Dark Energy Models in Generalized Rastall Gravity	*Modern Physics Letters A*, Vol.36, No.25, (2021) 2150180 (1-22) SCI, IF=1.391 DOI: 10.1142/S0217732321501807
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
201	Mahasweta Biswas, Sayani Maity and Ujjal Debnath	Holographic application in cosmology: Thermodynamics of the Van der Waals cosmic fluid	*Journal of Holography Applications in Physics,* Vol.1, No. 1, (2021) 71-83 DOI:10.22128/jhap.2021.453.1003
202	Niyaz Uddin Molla and Ujjal Debnath	Strong gravitational lensing by Kerr-Newman-Nut-Quintessence black hole	*International Journal of Modern Physics A*, Vol. 36, No. 27, (2021) 2150210 (1-31) SCI, IF=1.486 DOI: 10.1142/S0217751X21502109
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
204	Ujjal Debnath	Roles of Modified Chaplygin-Jacobi and Chaplygin-Abel Gases in FRW Universe	*International Journal of Modern Physics A*, Vol. 36, No. 33, (2021) 2150245 (1-25) SCI, IF=1.486 DOI: 10.1142/S0217751X21502456

205	Alokananda Kar, Shouvik Sadhukhan and Ujjal Debnath	Reconstruction of DBI-essence Dark energy with f(R) gravity and its effect on Black Hole and Wormhole mass accretion	*Modern Physics Letters A*, Vol. 36, No. 38, (2021) 2150262 (1-17) SCI, IF=1.391 DOI: https://doi.org/10.1142/S021773232150262X
206	Alok Sardar and Ujjal Debnath	Reconstruction of extended f(P) cubic gravity from other modified gravity models	*Physics of the Dark Universe*, Vol. 35, (2022) 100926 (1-16) SCIE, IF=4.473 DOI: https://doi.org/10.1016/j.dark.2021.100926
207	Mahasweta Biswas and Ujjal Debnath	Cosmological Analysis of Non-interacting and Interacting Generalized Ghost Dark Energy in Einstein-Aether Gravity Theory	*International Journal of Modern Physics A*, Vol. 37, No.5, (2022) 2250009 (1-26) SCI, IF=1.486 DOI: 10.1142/S0217751X22500099
208	Behnam Pourhassan and Ujjal Debnath	Study of Schwarzschild-like Black Hole in the Infinitely Extended Particles Theory: Shadow	*International Journal of Modern Physics A*, Vol. 37, No. 3, (2022) 2250015 (1-12) SCI, IF=1.486 DOI: https://doi.org/10.1142/S0217751X22500154
209	Pameli Saha and Ujjal Debnath	Particles Collision near Regular Charged Black Holes	*Journal of Holography Applications in Physics,* Vol. 2, No. 1, (2022) 71-88 DOI: 10.22128/jhap.2022.465.1013
210	Niyaz Uddin Molla and Ujjal Debnath	Destroying Kerr-Newman-Nut-Quintessence Black Hole	*Modern Physics Letters A*, Vol. 37, No. 6, (2022) 2250037 (1-15) DOI: 10.1142/S0217732322500377 SCI, IF=1.391
211	Rownak Kundu and Ujjal Debnath	Gravitational Lensing by Some Parametrizations of Dark Energy in the Universe	*International Journal of Modern Physics A*, Vol. 37, No.8, (2022) 2250035 (1-18) SCI, IF=1.486 DOI: 10.1142/S0217751X2250035X
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
214	Mahasweta Biswas and Ujjal Debnath	Analysis of Generalized Ghost Dark Energy and New Holographic Dark Energy in Chameleon Brans-Dicke Theory	*International Journal of Modern Physics A*, Vol. 37, No. 13, (2022) 2250081 (1- 42) DOI: 10.1142/S0217751X22500816 SCI, IF=1.486
215	Ujjal Debnath, Behnam Pourhassan and Izzet Sakalli	Modified Cosmic Chaplygin AdS Black Hole	*Modern Physics Letters A*, Vol. 37, No. 14 (2022) 2250085 (1-26) DOI: 10.1142/S0217732322500857 SCI, IF=1.391
216	Krishna Pada Das and Ujjal Debnath	Anisotropic Compact Stars in Presence of Electromagnetic Field, Quintessence Field and Cosmological Constant in f(G) Gravity	*International Journal of Modern Physics D*, Vol. 31, No. 9, (2022) 2250073 (1-22) DOI: https://doi.org/10.1142/S0218271822500730

			SCI, IF=2.154
217	Niyaz Uddin Molla and Ujjal Debnath	Destroying General Family of Rotating and Accelerating Charged Plebanski-Demianski Black Holes	*International Journal of Modern Physics A*, Vol. 37, No. 16 (2022) 2250103 (1-12) DOI: 10.1142/S0217751X22501032 SCI, IF=1.486
218	Ujjal Debnath	The General Class of Accelerating, Rotating and Charged Plebanski-Demianski Black Holes as Heat Engine	*Nuclear Physics B,* Vol. 982, (2022) 115883 (1-20) DOI: https://doi.org/10.1016/j.nuclphysb.2022.115883 SCI, IF=3.045
219	Tanwi Bandyopadhyay and Ujjal Debnath	Fluid Accretion upon Higher Dimensional Wormhole and Black Hole for Parameterized Deceleration Parameter	*International Journal of Geometric Methods in Modern Physics,* Vol. 19, No. 12, (2022) 2250182 (1-18) DOI: https://doi.org/10.1142/S0219887822501821 SCIE, IF=1.287
220	Niyaz Uddin Molla and Ujjal Debnath	Gravitational Lensing for Power-Maxwell Charged Quintessence Black Hole in Rastall gravity	*International Journal of Geometric Methods in Modern Physics,* Vol. 19, No. 12 (2022) 2250183 (1-23) DOI: https://doi.org/10.1142/S0219887822501833 SCIE, IF=1.287
221	Ujjal Debnath and Soumak Nag	Anisotropic Multiverse with Varying *c*, *G* and Study of Thermodynamics	*Universe,* Vol. 8, No. 8, (2022) 398 (1-23) DOI: https://doi.org/10.3390/universe8080398 SCI, IF=2.8
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
224	Alokananda Kar, Shouvik Sadhukhan and Ujjal Debnath	Coupling between DBI-essence dark energy model and f(Q) gravity and its effect on Condensed Body Mass accretion	*Modern Physics Letters A,* Vol. 37, No. 28, (2022) 2250183 (1-27) DOI: 10.1142/S0217732322501838 SCI, IF=1.391
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
229	Krishna Pada Das, Ujjal Debnath and Saibal Ray	Dark energy star: physical constraints on the bounds	*Fortschritte der Physik : Progress of Physics,* Vol. 2023, (2023) 2200148 (1-16) DOI: https://doi.org/10.1002/prop.202200148 SCI, IF=5.532
230	Niyaz Uddin Molla and Ujjal Debnath	Shadows and Strong Gravitational Lensing by Van der Waals Black Hole in Homogeneous Plasma	*Annals of Physics*, Vol. 453, (2023) 169304 (1-23) DOI: https://doi.org/10.1016/j.aop.2023.169304 SCIE, IF =3.3
231	Niyaz Uddin Molla and Ujjal Debnath	Gravitational Lensing of Acoustic Charged Black Hole	*The Astrophysical Journal*, Vol. 947, (2023) 14 (1-17) DOI: https://doi.org/10.3847/1538-4357/acb6f2 SCIE, IF =5.7
232	Chandradipa Nag, Tanusree Roy and Ujjal Debnath	Thermodynamics of Modified Bardeen-AdS Black Hole : Heat Engine	*International Journal of Geometric Methods in Modern Physics,* Vol. 20, No. 6 (2023) 2350093 (1-36) DOI: https://doi.org/10.1142/S0219887823500937 SCIE, IF=1.287
233	Rownak Kundu, Ujjal Debnath and Anirudh Pradhan	Studying the Optical Depth behaviour of Parametrized Deceleration Parameter in non-flat Universe	*International Journal of Geometric Methods in Modern Physics,* Vol. 20, No. 7, (2023) 2350110 (1-21) DOI: https://doi.org/10.1142/S0219887823501104 SCIE, IF=1.287
234	Anup Kumar Singha, Alok Sardar and Ujjal Debnath	f(Q) Reconstruction: In the light of various modified gravity models	*Physics of the Dark Universe,* Vol. 41, (2023) 101240 (1-13) DOI: https://doi.org/10.1016/j.dark.2023.101240 SCI, IF = 5.09
235	Tanusree Roy and Ujjal Debnath	Entropy Bound and EGUP correction of d-dimensional Riessner-Nordstrom Black Hole in Rainbow Gravity	*International Journal of Modern Physics A,* Vol. 38, Nos. 6 & 7 (2023) 2350034 (1-26) DOI: 10.1142/S0217751X23500343 SCI, IF=1.486
236	Tanusree Roy, Alok Sardar and Ujjal Debnath	Thermodynamic Overview and Heat Engine Efficiency of Kerr-Sen AdS Black Hole	*International Journal of Geometric Methods in Modern Physics,* Vol. 20, No. 8, (2023) 2350136 (1-22) DOI: https://doi.org/10.1142/S0219887823501360 SCIE, IF=1.287

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
238	Ujjal Debnath, Niyaz Uddin Molla and Anirudh Pradhan	Noncommutative wormhole in non-minimal curvature-matter coupling of f(R) gravity with Gaussian and Lorentzian distributions	*International Journal of Geometric Methods in Modern Physics,* Vol. 20, No. 12, (2023) 2350214 (1-28) DOI: 10.1142/S0219887823502146 SCIE, IF=1.287
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 SCIE, IF=1.287
240	Krishna Pada Das and Ujjal Debnath	Study of Rotating Gravastars	*Modern Physics Letters A,* Vol. 38, Nos. 14 & 15, (2023) 2350074 (1-27) DOI: 10.1142/S0217732323500748 SCIE, IF =1.594
241	Sourav Karmakar, Tanusree Roy and Ujjal Debnath	Thermodynamic stability and Heat Engine efficiency of a Kerr-Newmann-NUT-Kiselev AdS black hole in Rastall gravity	*Annals of Physics,* Vol. 457, (2023) 169425 (1-18) DOI: https://doi.org/10.1016/j.aop.2023.169425 SCIE, IF =3.3
242	Himanshu Chaudhary, Amine Bouali, Ujjal Debnath, Tanusree Roy and G.Mustafa	Constraints on the Parameterized Deceleration Parameter in FRW Universe	*Physica Scripta,* Vol. 98, (2023) 095006 (1-15) DOI: https://doi.org/10.1088/1402-4896/acea02 SCIE, IF =3.081
243	Krishna Pada Das and Ujjal Debnath	Possible Existence of Traversable Wormhole in Finsler-Randers Geometry	*European Physical Journal C*, Vol. 83, (2023) 821 (1-25) DOI: https://doi.org/10.1140/epjc/s10052-023-11910-3 SCIE, IF = 4.994
244	Amine Bouali, Himanshu Chaudhary, Ujjal Debnath, Alok Sardar and G. Mustafa	Data Analysis of three parameter model of deceleration parameter in FLRW Universe	*European Physical Journal Plus,* Vol. 138, (2023) 816 (1-26) DOI: https://doi.org/10.1140/epjp/s13360-023-04442-y SCIE, IF = 3.758
245	Himanshu Chaudhary, Amine Bouali, Niyaz Uddin Molla, Ujjal Debnath and G.Mustafa	Cosmological Tests of f(R, G, T) Dark Energy Model in FRW Universe	*European Physical Journal C*, Vol. 83, (2023) 918 (1-18) DOI: https://doi.org/10.1140/epjc/s10052-023-12094-6 SCIE, IF = 4.994
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
247	Alok Sardar, Pameli Saha, Ujjal Debnath and Anirudh Pradhan	Study of Yang-Mills condensate dark energy in the framework of Brans-Dicke theory	*International Journal of Geometric Methods in Modern Physics,* Vol. 20, No. 14 (2023) 2450003 (1-18) DOI:https://doi.org/10.1142/S0219887824500038 SCIE, IF=1.287

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
249	Piyali Bhar, Krishna Pada Das and Ujjal Debnath	The existence of Quintessence star models in the lower mass gap within 5D Einstein-Gauss-Bonnet gravity	*Chinese Journal of Physics,* Vol. 87, (2024) 465-485 DOI: https://doi.org/10.1016/j.cjph.2023.08.008 SCIE, IF = 3.957
250	Alok Sardar, Tanusree Roy and Ujjal Debnath	Cosmography for Various Parametrizations of Dark Energy Equation of State	*International Journal of Geometric Methods in Modern Physics,* Vol. 21, No. 2 (2024) 2450051 (1-43) DOI:https://doi.org/10.1142/S0219887824500518 SCIE, IF =1.287
251	Debojyoti Mondal and Ujjal Debnath	Interior Volume of Power-Maxwell Charged Black hole in Rastall Gravity	*Modern Physics Letters A,* Vol. 39, No. 01, (2024) 2350182 (1-11) DOI: https://doi.org/10.1142/S0217732323501821 SCIE, IF = 1.594
252	Krishna Pada Das, Ujjal Debnath, Asifa Ashraf and Madhur Khurana	An Acceptable Study of Anisotropic Dark Energy Stars in Modified f(R,G) Gravity	*Physics of the Dark Universe*, Vol. 43, (2024) 101398 (1-11) DOI:https://doi.org/10.1016/j.dark.2023.101398 SCIE, IF=5.09
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
254	Madhur Khurana, Himanshu Chaudhary, Ujjal Debnath, Alok Sardar and G.Mustafa	Exploring Late-Time Cosmic Acceleration with EoS Parameterizations in Horava-Lifshitz Gravity via Baryon Acoustic Oscillations	*Fortschritte der Physik : Progress of Physics,* Vol. 72, No. 2, (2024) 2300238 DOI: https://doi.org/10.1002/prop.202300238 SCIE, IF = 5.532
255	Jhumpa Bhadra, Ujjal Debnath and Anirudh Pradhan	Amended FRW Universe: Thermodynamics and Heat Engine	*European Physical Journal C,* Vol. 84, (2024) 131 (1-9) DOI: https://doi.org/10.1140/epjc/s10052-024-12484-4 SCIE, IF = 4.994
256	Himanshu Chaudhary, Niyaz Uddin Molla, Madhur Khurana,Ujjal Debnath and G.Mustafa	Cosmological Test of Dark Energy Parametrizations in Horava-Lifshitz Gravity	*European Physical Journal C,* Vol. 84, (2024) 223 (1-22) DOI: https://doi.org/10.1140/epjc/s10052-024-12504-3 SCIE, IF = 4.994
257	Krishna Pada Das and Ujjal Debnath	Study of Embedding Class-I Traversable Wormhole in Galileon Gravity	*Chinese Journal of Physics*, Vol. 89, (2024) 111-133 DOI:https://doi.org/10.1016/j.cjph.2024.02.010 SCIE, IF = 3.957
258	Niyaz Uddin Molla, Himanshu Chaudhary, G.Mustafa, Ujjal Debnath and S. K. Maurya	Strong gravitational lensing, quasi-periodic oscillations and constraints from EHT observations for quantum-improved charged black hole	*European Physical Journal C,* Vol. 84, (2024) 390 (1-16) DOI: https://doi.org/10.1140/epjc/s10052-024-12679-9 SCIE, IF = 4.994

259	Krishna Pada Das and Ujjal Debnath	Dark Energy Stars in f(R,G) Gravity	*International Journal of Geometric Methods in Modern Physics,* Vol. 21, No. 9 (2024) 2450178 (1-29) DOI: 10.1142/S0219887824501780 SCIE, IF = 1.287
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
261	Soubhik Paramanik and Ujjal Debnath	Non-Commutative Wormhole Geometries in Presence of Modified Chaplygin-Jacobi Gas and Anton-Schmidt Fluid	*International Journal of Geometric Methods in Modern Physics,* Vol. 21, No. 8, (2024) 2450154 (1-27) DOI: https://doi.org/10.1142/S0219887824501548 SCIE, IF =1.287
262	Homa Shababi, Tanwi Bandyopadhyay and Ujjal Debnath	On the entropy corrected thermal features of black holes	*Physica Scripta,* Vol. 99, (2024) 065221 (1-10) DOI: https://doi.org/10.1088/1402-4896/ad43c8 SCIE, IF =3.081
263	Krishna Pada Das and Ujjal Debnath	Spherically Symmetric Anisotropic Charged Neutron Stars in f(Q,T) Gravity	*European Physical Journal C*, Vol. 84, (2024) 513 (1-16) DOI: https://doi.org/10.1140/epjc/s10052-024-12870-y SCIE, IF = 4.994
264	Niyaz Uddin Molla, Himanshu Chaudhary, G.Mustafa, Farruh Atamurotov, Ujjal Debnath and Dhruv Arora	Strong Gravitational Lensing by Sgr A* and M87* Black Holes embedded in Dark Matter Halo exhibiting string cloud and quintessential field	*European Physical Journal C*, Vol. 84, (2024) 574 (1-20) DOI: https://doi.org/10.1140/epjc/s10052-024-12917-0 SCIE, IF = 4.994
265	Jyotirmay Das Mandal, Ujjal Debnath and Anirudh Pradhan	Dark Energy and Dark Matter Interaction: A Nonlinear Dynamical System Study	*International Journal of Geometric Methods in Modern Physics,* Vol. 21, No. 14 (2024) 2450238 (1-20) DOI: 10.1142/S0219887824502384 SCIE, IF =1.287
266	Anup Kumar Singha, Ujjal Debnath and Anirudh Pradhan	Cosmographic Analysis of the Dynamics of Universe in Higher Dimensional Compactified Space with Tachyonic Field	*Canadian Journal of Physics,* Vol. 102, (2024) 486-495 DOI: dx.doi.org/10.1139/cjp-2023-0195 SCIE, IF =1.2
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
268	Niyaz Uddin Molla, Amna Ali, Ujjal Debnath and Saraswathy Shamini Gunasekaran	Investigating the Shadows and Strong Gravitational Lensing of Modified Bardeen Black Holes	*Physica Scripta* Vol. 99, (2024) 075019 (1-21) DOI: https://doi.org/10.1088/1402-4896/ad52cd SCIE, IF =3.081
269	Himanshu Chaudhary, Ujjal Debnath, Tanusree Roy, Sayani Maity, G. Mustafa and Monika Arora	Constraints on the Parameters of Modified Chaplygin-Jacobi and Modified Chaplygin-Abel Gases in f(T) Gravity Model	*International Journal of Geometric Methods in Modern Physics,* Vol. 21, No. 14 (2024) 2450248 (1-29) DOI: 10.1142/S0219887824502487 SCIE, IF =1.287

270	Himanshu Chaudhary, Shibesh Kumar Jas Pacif, Ujjal Debnath, Farook Rahaman and G.Mustafa	Cosmological test of dark energy parametrizations within the framework of Horava-Lifshitz gravity using via Baryon Acoustic Oscillation	*Chinese Physics C,* Vol. 48, No. 11 (2024) 115109 (1-18) DOI: 10.1088/1674-1137/ad6419 SCIE, IF =3.6
271	Himanshu Chaudhary, Ujjal Debnath, Shibesh Kumar Jas Pacif, Niyaz Uddin Molla, G. Mustafa and S. K. Maurya	Observational Constraints of the Parameters of Horava-Lifshitz Gravity	*Annalen der Physik,* Vol. 2024, (2024) 2400181 (1-8) DOI: 10.1002/andp.202400181 SCIE, IF =2.2
272	Rownak Kundu, Ujjal Debnath, Himanshu Chaudhary and G.Mustafa	Gravitational Lensing of Dark Energy Models and ΛCDM Using Observational data in Loop Quantum Cosmology	*Journal of High Energy Astrophysics,* Vol. 43, (2024) 239-247 DOI: https://doi.org/10.1016/j.jheap.2024.07.013 SCIE, IF = 10.2
273	Himanshu Chaudhary, Ujjal Debnath, Farook Rahaman, G.Mustafa and Farruh Atamurotov	Early and Late Observational Tension: Dark Energy Parametrizations in Horava-Lifshitz Gravity via Baryon Acoustic Oscillations	*Physica Scripta,* Vol. 99, (2024) 105037 (1-19) DOI: https://doi.org/10.1088/1402-4896/ad7178 SCIE, IF = 3.081
274	Puja Mukherjee, Ujjal Debnath, Himanshu Chaudhary and G.Mustafa	Constraining the parameters of generalized and viscous modified Chaplygin gas and black hole accretion in Einstein-Aether gravity	*European Physical Journal C*, Vol. 83, (2024) 930 (1-13) DOI: https://doi.org/10.1140/epjc/s10052-024-13196-5 SCIE, IF = 4.994
275	Rownak Kundu, Ujjal Debnath and Anirudh Pradhan	Viscous Modified Chaplygin gas with spherical top-hat collapse in Modified Theories of Gravity	*Physica Scripta,* Vol. 99, (2024) 095024 (1-16) DOI: https://doi.org/10.1088/1402-4896/ad6e31 SCIE, IF = 3.081
276	Himanshu Chaudhary, Ujjal Debnath, S. K. Maurya, G.Mustafa and Farruh Atamurotov	Addressing the r_d Tension using Late-Time Observational Measurements in a Novel deceleration Parametrization	*Journal of High Energy Astrophysics,* Vol. 43, (2024) 268-279 DOI: https://doi.org/10.1016/j.jheap.2024.08.003 SCIE, IF = 10.2
277	Krishna Pada Das, Piyali Bhar and Ujjal Debnath	Anisotropic Quark Stars with an Interacting Quark Equation of State in Extra Dimension	*European Physical Journal C*, Vol. 84, (2024) 952 (1-15) DOI: https://doi.org/10.1140/epjc/s10052-024-13234-2 SCIE, IF = 4.994
278	Alok Sardar and Ujjal Debnath	Constraining the Entropy corrected (m, n) Type Pilgrim Dark Energy in Fractal Cosmology	*European Physical Journal C*, Vol. 84, (2024) 1074 (1-18) DOI: https://doi.org/10.1140/epjc/s10052-024-13405-1 SCIE, IF = 4.994
279	Krishna Pada Das, Ujjal Debnath and Saibal Ray	Thin-shell Gravastars in the Effect of Graviton Mass: Linearized Stability and Dynamics	*Physics of the Dark Universe,* Vol. 46, (2024) 101691 (1-15) DOI: https://doi.org/10.1016/j.dark.2024.101691 SCIE, IF = 5.09
280	Krishna Pada Das and Ujjal Debnath	Effect of Rainbow Function on Radial Oscillations and Some Other Properties of Chaplygin Dark Star	*European Physical Journal Plus*, Vol. 139, (2024) 988 (1-16) DOI: https://doi.org/10.1140/epjp/s13360-024-05785-w SCIE, IF = 2.8

281	Krishna Pada Das, Akashdip Karmakar and Ujjal Debnath	Color Flavor Locked Strange Stars in de Rham-Gabadadze-Tolley like Massive Gravity	*European Physical Journal C*, Vol. 84, (2024) 1213 (1-16) DOI: https://doi.org/10.1140/epjc/s10052-024-13556-1 SCIE, IF = 5.09
282	Himanshu Chaudhary, Ujjal Debnath, S. K. Maurya, G. Mustafa and Farruh Atamurotov	Constraining the equations of state Parametrization in Horava-Lifshitz Gravity	*Journal of High Energy Astrophysics,* Vol. 44, (2024) 427- 436 DOI: https://doi.org/10.1016/j.jheap.2024.11.003 SCIE, IF = 10.2
283	Sayani Maity, Himanshu Chaudhary, Ujjal Debnath, S. K. Maurya and G. Mustafa	Constraining Cosmological Parameters with Viscous Modified Chaplygin Gas and Generalized Cosmic Chaplygin Gas Models in Horava-Lifshitz Gravity: Utilizing Late-time Datasets	*Astroparticle Physics,* Vol. 164, (2025) 103026 (1-13) DOI: https://doi.org/10.1016/j.astropartphys.2024.103026 SCIE, IF = 4.2
284	Anup Kumar Singha, Alok Sardar, Ujjal Debnath and Anirudh Pradhan	Cosmological Dynamics of FRW Universe in Presence of Tachyonic Field	*Physica Scripta,* Vol. 100, (2025) 015038 (1-12) DOI: https://doi.org/10.1088/1402-4896/ad9e3b SCIE, IF = 3.081
285	Niyaz Uddin Molla, Himanshu Chaudhary, Farruh Atamurotov, G. Mustafa, Tiberiu Harko and Ujjal Debnath	Astrophysical Implications of Weyl Geometric Black Holes: Shadows and Strong Gravitational Lensing	*Physics of the Dark Universe,* Vol. 47, (2025) 101735 (1-16) DOI; https://doi.org/10.1016/j.dark.2024.101735 SCIE, IF = 5.09
286	Banadipa Chakraborty, Tamal Mukhopadhyay, Debojyoti Mondal and Ujjal Debnath	Thermodynamics of Modified Chaplygin-Jacobi Gas and Modified Chaplygin-Abel Gas: Stability Analysis and Observational Constraints	*Nuclear Physics B*, Vol. 1010, (2025) 116770 (1-32) DOI: https://doi.org/10.1016/j.nuclphysb.2024.116770 SCIE, IF =2.5
287	Niyaz Uddin Molla, Himanshu Chaudhary, Ujjal Debnath, G.Mustafa and Sunil Kumar Maurya	Shadow and strong gravitational lensing of new wormhole solutions supported by embedding Class-I condition	*European Physical Journal C*, Vol. 85, (2025) 15 (1-22) DOI: https://doi.org/10.1140/epjc/s10052-024-13720-7 SCIE, IF =5.09
288	Niyaz Uddin Molla, Himanshu Chaudhary, S. Capozziello, Farruh Atamurotov, G. Mustafa and Ujjal Debnath	Observable Signatures of RN Black Holes with Dark Matter Halos via Strong Gravitational Lensing and Shadow: Constraints from EHT Observations	*Physical of the Dark Universe,* Vol. 47, (2025) 101804 (1-18) DOI: https://doi.org/10.1016/j.dark.2024.101804 SCIE, IF = 5.00
289	Alok Sardar, Sayani Maity, Ujjal Debnath and Anirudh Pradhan	Different Horizon Cut-offs for Tsallis, Rényi and Sharma-Mittal Dark Energies in Horava-Lifshitz Gravity	*Annals of Physics,* Vol. 473, (2025) 169891 (1-16) DOI: https://doi.org/10.1016/j.aop.2024.169891 SCIE, IF = 2.267
290	Ratul Mandal, Ujjal Debnath and Anirudh Pradhan	Dynamical System Analysis for Extended f(P) Gravity Coupled with Scalar Field	*European Physical Journal C*, Vol. 85, (2025) 80 (1-18) DOI: https://doi.org/10.1140/epjc/s10052-025-13784-z SCIE, IF =5.09
291	Subhajit Sarkar, Alok Sardar and Ujjal Debnath	DBI-essence Inflation in Loop Quantum Cosmology: Warm Intermediate and Logamediate Scenarios	*Physica Scripta,* Vol. 100, (2025) 025006 (1-24) DOI: 10.1088/1402-4896/ada211 SCIE, IF = 3.081

292	Krishna Pada Das, Mahasweta Biswas and Ujjal Debnath	Charged AnisotropicStrange Stars in Generalized Rastall Gravity	*Physica Scripta,* Vol. 100, (2025) 025305 (1-22) DOI: 10.1088/1402-4896/ada3fb SCIE, IF = 3.081
293	Soubhik Paramanik, Krishna Pada Das and Ujjal Debnath	Embedding Class-I Traversable Wormhole in f(T,*T*) Gravity via Karmarkar Condition	*Nuclear Physics B,* Vol. 1012, (2025) 116813 (1-25) DOI: https://doi.org/10.1016/j.nuclphysb.2025.116813 SCIE, IF =2.5
294	Aniruddha Ghosh and Ujjal Debnath	New Black Hole Solutions in f(P) Gravity and their Thermodynamic Properties	*Physics Letters B,* Vol. 862, (2025) 139305 (1-9) DOI: https://doi.org/10.1016/j.physletb.2025.139305 SCIE, IF = 4
295	Krishna Pada Das and Ujjal Debnath	Electrically Charged White Dwarfs in 4D Einstein-Gauss-Bonnet Gravity	*Astrophysics and Space Science,* Vol. 370, (2025) 21 (1-12) DOI: https://doi.org/10.1007/s10509-025-04412-z SCIE, IF = 1.8
296	Amna Ali, Niyaz Uddin Molla, Sushant G. Ghosh, Ammuthavali Ramasamya and Ujjal Debnath	Observable Signature of Dehnen-Type Dark Matter Halos via Strong Gravitational Lensing by Supermassive Black Holes and Constraints from EHT Observations	*Physics of the Dark Universe,* Vol. 48, (2025) 101859 (1-10) DOI: https://doi.org/10.1016/j.dark.2025.101859 SCIE, IF = 5.0
297	Tamal Mukhopadhyay, Banadipa Chakraborty, Ujjal Debnath and Anirudh Pradhan	On the Field Theoretical Description of an Alternative Model to Generalized Chaplygin Gas and its Thermodynamic Behaviour	*Physics of the Dark Universe,* Vol. 48, (2025) 101878 (1-27) DOI: https://doi.org/10.1016/j.dark.2025.101878 SCIE, IF = 5.0
298	Debojyoti Mondal, Tanusree Roy and Ujjal Debnath	Thermodynamics in Euler-Heisenberg Black Hole Surrounded by Quintessence Field using Shadow	*Nuclear Physics B*, Vol. 1014, (2025) 116859 (1-19) DOI: https://doi.org/10.1016/j.nuclphysb.2025.116859 SCIE, IF = 2.5
299	Puja Mukherjee, Ujjal Debnath and Pameli Saha	Study of mass accretion of fluids flow near the horizon of charged acoustic black hole	*European Physical Journal C*, Vol. 85, (2025) 308 (1-14) DOI: https://doi.org/10.1140/epjc/s10052-025-14015-1 SCIE, IF = 5.09
300	Krishna Pada Das and Ujjal Debnath	Effect of Rainbow Function on the Structural Properties of Color Flavor Locked Strange Stars	*Nuclear Physics B*, Vol. 1010, (2025) 116869 (1-13) DOI: https://doi.org/10.1016/j.nuclphysb.2025.116869 SCIE, IF = 2.5
301	Krishna Pada Das and Ujjal Debnath	Study of Stable Dark Energy Stars in Horava-Lifshitz gravity	*European Physical Journal C*, Vol. 85, (2025) 329 (1-17) DOI: https://doi.org/10.1140/epjc/s10052-025-14059-3 SCIE, IF = 5.09
302	Himanshu Chaudhary, Ujjal Debnath S. K. J. Pacif and G. Mustafa	Determination of H0 and rd in Horava-Lifshitz Gravity Using DESI-Y1 and SDSS-IV Dataset: Alleviating the Hubble Tension	*Annalen de Physik*, Vol. 2025, (2025) 2400421(1-7) DOI: 10.1002/andp.202400421 SCIE, IF = 2.2

303	Ujjal Debnath, Himanshu Chaudhary, Niyaz Uddin Molla, S. K. J. Pacif and G.Mustafa	Estimation of H0 and rd in the $\omega(z)$ Parameterization within Einstein and Horava-Lifshitz Gravity Using DESI-Y1 and SDSS-IV	*European Physical Journal C*, Vol. 85, (2025) 364 (1-15) DOI: https://doi.org/10.1140/epjc/s10052-025-14056-6 SCIE, IF = 5.09
304	Anup Kumar Singha, Rupali Sadhukhan and Ujjal Debnath	Reconstructions of $F(P)$ Gravity from Barrow Holographic Dark Energy, Barrow Agegraphic Dark Energy and New Barrow Agegraphic Dark Energy	*Modern Physics Letters A,* Vol. 40, No. 1 (2025) 2450197 (1-21) DOI: 10.1142/S0217732324501979 SCIE, IF =1.5
305	Rounak Manna and Ujjal Debnath	Charged wormholes with a quintessence dark-energy field in the galactic halo	*Modern Physics Letters A,* Vol. 40, No. 03, (2025) 2450217 (1-24) DOI: https://doi.org/10.1142/S0217732324502171 SCIE, IF =1.6
306	Anamika Kotal, Sayani Maity, Ujjal Debnath and Anirudh Pradhan	Parameter Constraints and Cosmographic Analysis of Barrow Agegraphic and New Barrow Agegraphic Dark Energy Models	*European Physical Journal C,* Vol. 85, (2025) 565 (1-35) DOI: https://doi.org/10.1140/epjc/s10052-025-14294-8 SCIE, IF =5.09
307	Krishna Pada Das and Ujjal Debnath	Possible Formation of Chaplygin Dark Star in Gravity from the Determinant of the Energy-Momentum	*Physics of the Dark Universe,* Vol. 48, (2025) 101959 (1-9) DOI: https://doi.org/10.1016/j.dark.2025.101959 SCIE, IF =5.0
308	Banadipa Chakraborty, Tamal Mukhopadhyay, Anamika Kotal and Ujjal Debnath	Reconstructions of Einstein-Aether Gravity from Barrow Agegraphic and New Barrow Agegraphic Dark Energy models: Examinations and Observational Limits	*European Physical Journal C,* Vol. 85, (2025) 647 (1-30) DOI: https://doi.org/10.1140/epjc/s10052-025-14392-7 SCIE, IF =5.09
309	Anuka Basak and Ujjal Debnath	Accretion of Dark Energy onto Black Hole in Bumblebee Field	*European Physical Journal C,* Vol. 85, (2025) 665 (1-17) DOI: https://doi.org/10.1140/epjc/s10052-025-14398-1 SCIE, IF =5.09
310	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 : Analysis and Observational Constraints	*International Journal of Geometric Methods in Modern Physics,* Vol. 22, No. 8 (2025) 2550051 (1-37) DOI: 10.1142/S0219887825500513 SCIE, IF =1.287
311	Debojyoti Mondal and Ujjal Debnath	Phase Structure of Einstein-Nonlinear-Maxwell-Yukawa Charged AdS Black Hole in Quintessence Field	*International Journal of Modern Physics A,* Vol. 40, No. 20 (2025) 2550068 (1-22) DOI: 10.1142/S0217751X2550068X SCIE, IF =1.4
312	Puja Mukherjee, Ujjal Debnath, Himanshu Chaudhary and G.Mustafa	How parameter constraining can influence the mass accretion process of a Black Hole in the Generalized Rastall Gravity Theory ?	*Journal of Cosmology and Astroparticle Physics,* Vol. 05, (2025) 085 (1-25) DOI: https://doi.org/10.1088/1475-7516/2025/05/085 SCIE, IF =5.3
313	Aniruddha Ghosh and Ujjal Debnath	Gravitational Lensing by Deformed Horava-Lifshitz Black Hole in Rainbow Gravity	*Physics Letters B,* Vol. 868, (2025) 139686 (1-10) DOI: https://doi.org/10.1016/j.physletb.2025.13

			9686 SCIE, IF =2.5
314	Debojyoti Mondal and Ujjal Debnath	Entropy Relations and GUP Corrections of Ernst Black Hole	*International Journal of Geometric Methods in Modern Physics,* Vol. 22, No. 9 (2025) 2550056 (1-22) DOI: 10.1142/S0219887825500562 SCIE, IF =1.287
315	Sayan Naskar, Niyaz Uddin Molla and Ujjal Debnath	Strong gravitational lensing by black holes in F(R)-Euler-Heisenberg Gravity's Rainbow	*Physics of the Dark Universe,,* Vol. 49, (2025) 102009 (1-16) DOI: https://doi.org/10.1016/j.dark.2025.102009 SCIE, IF =5.0
316	Anamika Kotal, Alok Sardar, Arijit Malakar and Ujjal Debnath	Parameter Estimation of Barrow Agegraphic and New Barrow Agegraphic Dark Energy Models in Fractal Universe: Correspondence with Scalar field Models	*Nuclear Physics B,* Vol. 1019, (2025) 117024 (1-68) DOI: https://doi.org/10.1016/j.nuclphysb.2025.117024 SCIE, IF= 2.72
317	Anamika Kotal and Ujjal Debnath	Impact of Entropy-Corrected Hoˇrava-Lifshitz Gravity on Modified Chaplygin Gas: A Cosmological Parameter Estimation	*Chinese Journal of Physics,* Vol. 98, (2025) 147-174 DOI: https://doi.org/10.1016/j.cjph.2025.08.043 SCIE, IF= 4.6
318	Debojyoti Mondal, Ujjal Debnath and Anirudh Pradhan	Thermodynamics of Charged Acoustic Black Hole: Heat Engine	*International Journal of Geometric Methods in Modern Physics,* Vol. 22, No. 11 (2025) 2530002 (1-24) DOI: 10.1142/S0219887825300028 SCIE, IF =1.287
319	Ratul Mandal, Ujjal Debnath and Anirudh Pradhan	Exploring the dynamics of coincident f(Q) gravity in the presence of DBI-essence scalar field	*Annals of Physics,* Vol. 483, (2025) 17045 (1-19) DOI: https://doi.org/10.1016/j.aop.2025.170245 SCIE, IF =0.624
320	Homa Shababi, Prabir Rudra, Sayani Maity and Ujjal Debnath	The effects of the pole dark energy on gravitational waves	*Journal of Holography Applications in Physics,* Vol. 5, Issue 4, (2025) 50-67 DOI: 10.22128/jhap.2025.3013.1128 SCIE, IF =0.624
321	Rounak Manna, Krishna Pada Das and Ujjal Debnath	Possible Formation of Traversable Wormholes and Their Thermodynamic Analysis in f(Q,Lm,T) Gravity	*Physics of the Dark Universe,* Vol. 50, (2025) 102142 (1-18) DOI: https://doi.org/10.1016/j.dark.2025.102142 SCIE, IF =5.0
322	Anamika Kotal, Ujjal Debnath and Anirudh Pradhan	Cosmological Parameter Analysis and Correspondence of f(R), f(G), f(T) Gravity Models within the (m,n)-type Barrow Holographic Dark Energy Framework	*Physica Scripta,* Vol. 100, (2025) 115302 (1-28) DOI: https://doi.org/10.1088/1402-4896/ae1a1b SCIE, IF =2.6
323	Puja Mukherjee, Himanshu Chaudhary, Ujjal Debnath and G. Mustafa	Compact Objects in 4D Einstein Gauss Bonnet Gravity: A Data Based Perspective	*Nuclear Physics B,* Vol. 1022, (2026) 117206 (1-16) DOI: https://doi.org/10.1016/j.nuclphysb.2025.117206 SCIE, IF =2.72

324	Debojyoti Mondal and Ujjal Debnath	Charged AdS Black Hole Thermodynamics in Einstein-Gauss-Bonnet Gravity under Quintessence Field: Heat Engine	*Nuclear Physics B,* Vol. 1022, (2026) 117247 (1-17) DOI: https://doi.org/10.1016/j.nuclphysb.2025.117247 SCIE, IF =2.72
325	Rounak Manna, Ujjal Debnath and Anirudh Pradhan	Stability of Thin-Shell Wormholes Constructed from Euler-Heisenberg AdS Black Holes	*Annals of Physics,* Vol. 485, (2026) 170319 (1-20) DOI: https://doi.org/10.1016/j.aop.2025.170319 SCIE, IF =3.0
326	Aniruddha Ghosh and Ujjal Debnath	The New Black Hole Solution with Anisotropic Fluid f(R, Lm,T) Gravity: Thermodynamics	*Nuclear Physics B,* Vol. 1023, (2026) 117299 (1-18) DOI: https://doi.org/10.1016/j.nuclphysb.2026.117299 SCIE, IF =2.72
327	Biswajit Sarkar, Ujjal Debnath and Anirudh Pradhan	Thin-Shell Wormhole from Modified Bardeen AdS Black Hole	*European Physical Journal C,* Vol. 86, (2026) 84 (1-14) DOI: https://doi.org/10.1140/epjc/s10052-025-15249-9 SCIE, IF =5.09
328	Himanshu Chaudhary, Ratul Mandal, Mansoor Bashir, Vipin Kumar Sharma and Ujjal Debnath	Λ(t)CDM Cosmology: Cosmological Implications, and dynamical System Analysis	*Chinese Physics C,* Vol. 50, No. 4, (2026) 045103 (1-14) DOI: 10.1088/1674-1137/ae3316 SCIE, IF =3.6
329	Puja Mukherjee, Ujjal Debnath and Anirudh Pradhan	Accretion Phenomena of Different Kinds of Chaplygin Gas Models onto Kehagias-Sfetsos Black Hole in Horava-Lifshitz Gravity Scenario	*International Journal of Geometric Methods in Modern Physics,* Vol. 23, No. 8, (2026) 2550216 (1-34) DOI: 10.1142/S0219887825502160 SCIE, IF =1.287
330	Soubhik Paramanik, Himanshu Chaudhary, Ujjal Debnath and Farruh Atamurotov	Dark Energy Parameterization in Wormhole	*Nuclear Physics B,* Vol. 1026, (2026) 117425 (1-23) DOI: https://doi.org/10.1016/j.nuclphysb.2026.117425 SCIE, IF =2.72
331	Anuka Basak and Ujjal Debnath	Probing mass accretion phenomenon onto black hole in Lorentz-violating Kalb-Ramond gravity: A Parameter Estimation Approach	*Journal of High Energy Astrophysics,* Vol. 53, (2026) 100613 (1-19) DOI: https://doi.org/10.1016/j.jheap.2026.100613 SCIE, IF =10.2
332	Puja Mukherjee, Ujjal Debnath and Pameli Saha	The Amended FRW Universe: Interpreted through Tsallis and Sharma-Mittal Holographic Dark Energies	*Annals of Physics,* Vol. 490, (2026) 170486 (1-18) DOI: https://doi.org/10.1016/j.aop.2026.170486 SCIE, IF =3.0
333	Rownak Kundu, Ujjal Debnath and Anirudh Pradhan	Gravitational Lensing for Tsallis, Renyi and Sharma-Mittal holographic and new agegraphic dark energy models in D-dimensional fractal universe	*Gravitation and Cosmology,* (Accepted) (2026) SCIE, IF =1.0
334	Mahasweta Biswas, Rikpratik Sengupta and Ujjal Debnath	Co-existence of alternative Generalized Chaplygin Gas and other Dark Energies in the Framework of Fractal Universe	*International Journal of Geometric Methods in Modern Physics,* (Accepted) (2026) SCIE, IF =1.287

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: 334 (in which joint papers: 298 and single papers: 36)

In Google Scholar---
Citations: 5174
h-index: 34
i10-index: 141

Proceedings Publication:

Ujjal Debnath, "Modified Chaplygin Gas and Accelerated Universe", in *Relativistic Astrophysics and Cosmology - Einstein's Legacy*, 7-11 Nov 2005, Munich, Germany, Springer, pages 11-15, (2007) (ISBN: 978-3-540-74713-0).

Book Published:

Ujjal Debnath, **"**Cosmological Models in Einstein's Gravity and Gravitational Collapse", LAMBERT Academic Publishing Gmbh & Co. KG, Germany, 196 pages, (2011), ISBN:978-3-8443-9558-7.

Book Chapter Published:

Pameli Saha and Ujjal Debnath, "Physics of Anisotropic Compact Star Models with Observational Data", *Current Perspective to Physical Science Research, Vol. 2*, 29 September 2023, Chapter 1, Page 1-23, B.P.International Publishers, London and Kolkata. Print ISBN: 978-81-19761-41-8, eBook ISBN: 978-81-19761-54-8
https://doi.org/10.9734/bpi/cppsr/v2/10967F