

DATE OF BIRTH

May 17, 1971

MARITAL STATUS

Married

NATIONALITY

Indian

ADDRESS FOR CORRESPONDENCE

Centre For Theoretical Physics,
Jamia Millia Islamia,
Jamia Nagar, New Delhi 110025
Delhi, India,

E-mail: aasen@jmi.ac.in

ACADEMIC QUALIFICATION

Phd in Science from Jadavpur University, Kolkata, India. Degree obtained in 1999 under the supervision of Prof. Asit Banerjee and Prof. Narayan Banerjee. The thesis title is “Some Aspects of Early Universe”.

RESEARCH FIELD

Gravitation, Astroparticle Physics and Cosmology.

CURRENT POSITION

Professor at the Center For Theoretical Physics, in Jamia Millia Islamia Central University, New Delhi, India.

ACADEMIC EXPERIENCE

- **Professor** at **Center For Theoretical Physics at Jamia Millia Islamia**, New Delhi, India from February 2013.
- **Professor** at the School of Arts and Sciences, Ahmedabad University, Gujarat, India from December 2020 till June 2022 (On Leave from Jamia Millia Islamia during this period)
- **Associate Professor** at **Center For Theoretical Physics at Jamia Millia Islamia**, New Delhi, India from February 2010 till February 2013.
- **Reader** at **Center For Theoretical Physics at Jamia Millia Islamia**, New Delhi, India from February 2007 till February 2010.
- **Post Doctoral Fellow** in the **Department of Physics and Astronomy, Vanderbilt University**, in U.S.A from December 2004 to February 2007.
- **Post Doctoral Fellow, Instituto Superior Tecnico** in Lisbon, Portugal November 2001 to August 2004.
- **Post Doctoral Fellow** at **Harish-Chandra Research Institute** in Allahabad, India from November 1999 to November 2001.

Research Publications(Source: Inspirehep.net)

Total Number of Publications: 109

Average Citation per Paper: 72

h-index: 39

RESEARCH GRANTS

- **Principal Investigator**

Type of the Project: National.

Funding Agency: SERC, Dept of Science and Technology, Govt of India

Title: Search for the missing links between observation and theory in beyond concordance CDM model.

Grant Amount: Rs. 43,86,000.00

Status: Ongoing.

- **Principal Investigator**

Type of the Project: National.

Funding Agency: SERC, Dept of Science and Technology, Govt of India Under Matrix Program

Title: Astrophysics and Cosmology in Ghost-Free Bi-metric Gravity.

Grant Amount: Rs. 6,60,000.00

Status: Completed.

- **Principal Investigator**

Type of the Project: National.

Funding Agency: University Grants Commission, Govt of India

Title: Accelerating Universe and its Observational Signatures.

Grant Amount: Rs.5,50,000.00

Status: Completed

- **Principal Investigator**

Type of the Project: National.

Funding Agency: SERC, Dept of Science and Technology, Govt of India

Title: Astrophysics and Cosmology with Higher Dimensional Theories.

Co-Investigators: Prof. D. Ghoshal, J.N.University, Delhi and Prof. D. Choudhury, University of Delhi, Delhi

Grant Amount:Rs.27,14,000.00

Status: Completed.

- **Co-Investigator**

Funding Agency: C.S.I.R, Govt of India

Type of the Project: National.

Title:Accelerated Expansion of the Universe: Its Origin and Observational

Consequences

Principal Investigator: Prof. T.R. Seshadri, University of Delhi, Delhi

Grant:Rs. 16,92,000.00

Status: Completed.

- **Co-Investigator**

Funding Agency: DST, Govt of India

Type of the Project: International, Indo-RussianProject

Title:Inflation and Late Time Acceleration of the Universe and its Observational Signatures

Principal Investigators:

Prof. M. Sami, Centre For Theoretical Physics, J.M.I, Delhi

Prof. A. Kamenschik, Landau Institute of Theoretical Physics, Moscow, Russia Grant:Rs. 14,70,400.00

Status: Completed.

PARTICIPATION IN BIG PROJECTS

- Member, **International Science Development Team** on "Fundamental Physics and Cosmology" for **Thirty Meter Telescope (TMT) project**.
- Member, **SKA-India Consortium** and **Indian Science Working Group** on "Epoch of Reionization and Cosmology" for **Square Kilometer Array (SKA) project**.
- Member, **SKA-India Science Committee**.
- Associate Member, **SKA Science Working Group on Cosmology**.
- Member, **IndIGO Consortium (Indian Initiative in Gravitational-Wave Observations)**.

AWARDS and FELLOWSHIPS

- **Visitor Award 2015** by the Honourable President of India for Best Research.
- **Fellow, National Academy of Sciences, Allahabad, India**
- **Fellow, International Artificial Intelligence Industry Alliance (AIIA)**
- **Research Associateship at Abdus Salam International Center For Theoretical Physics, Trieste, Italy** during 2009-2016.
- **Research Associateship at IUCAA, Pune, India** from 2007-till date.

- **Honorable Mention in the 2003 Essay Contest of the Gravity Research Foundation, US**, for the essay "Generalized Chaplygin Gas Model: Dark Energy - Matter Unification and CMBR Constraints" written with M.C. Bento and O. Bertolami.

PhD Thesis Supervision/Project Student/Post Doctoral Fellow

- PhD Awarded: 10
- PhD : 01 (ongoing)
- Research Fellow under SERB-CRG project: 01 (completed)
- Post Doctoral Fellow under SERB-CRG Project: 02 (completed).
- Post Doctoral Fellow under DS Kothari Scheme of UGC: 01 (completed).
- Post Doctoral Fellow under SERB-NPDF Scheme: 02 (ongoing).

ACTIVITIES

- **In-Charge**, Graduate Program, Centre For Theoretical Physics, Jamia Millia Islamia.
- **Member**, Academic Audit Committee, Jamia Millia Islamia.
- **Secretary, Indian Associate for General Relativity and Gravitation (IAGRG)** from 2022 till 2026..
- **Council Member for Indian Associate for General Relativity and Gravitation (IAGRG)** during 2014-2018.
- **Director**, XXVI SERC Main School On Theoretical High Energy Physics held in Center For Theoretical Physics, Jamia Millia Islamia, New Delhi, India from 31st January to 20th February 2011.
- Refereeing: Physics Letters B, JCAP, Europhysics Letters, General Relativity and Gravitation, European Physical Journal C, Physics of the Dark Universe, MNRAS, Astroparticle Physics
- **Convenor, VIII meeting on Field Theoretic Aspects of Gravity** held at H.N.B. Garhwal University, Srinagar, Uttarkhand, India from 19th-23rd April 2010.
- **Coordinator, Cosmology and Astroparticle Physics Working Group, at WHEPP-12** held at Mahabaleswar, India during 2nd-8th January 2012.
- **Member, Syllabus Committee for the M.SC/M.Phil Physics Program**, at Central University of Rajasthan, India.

- **Convenor, S.O.C. for 27th IAGRG Meeting** held at Garhwal University, Srinagar, India during March 7-9, 2013.
- **Member, Organising Committee, IUCAA Sponsored Workshop on Cosmology, entitled "Present Observational Constraints on Cosmological Parameters"** held at University of Delhi, India during 28th January - 1st February 2013.
- **Member, Organising Committee, AAPCOS-2013**, held at Institute for Advanced Studies, Shimla, India during 14-17 June 2013.
- **Member, National Organising Committee (NOC), WHEPP-XIV** held at Indian Institute of Technology, Kanpur, India in 4-13 December 2015.
- **Member, Organising Committee, XXVII IUPAP Conference on Computational Physics** held at Indian Institute of Technology, Guwahati, India in 2-5 December 2015.
- **Co-Chair, Cosmology Session at International Conference on Gravitation and Cosmology (ICGC 2015)** held at Indian Institute of Science Education and Research, Mohali, India during December 2015.
- **Member, National Organising Committee (NOC), SUSY-2017** held at TIFR, India in December 2017.
- **Member, Series Scientific Organising Committee (SSOC), Conference on Shedding Light on the Dark Universe With Extremely Large telescope** to be held in Asia/Australia, Europe/Africa and USA.
- **Member, Local Scientific Organising Committee (LSOC), Conference on Shedding Light on the Dark Universe With Extremely Large telescope** held in Lanzhou, China during Aug 30-Sept 2, 2017.
- **Member, Organising Committee, Conference on Shedding Light on the Dark Universe with Extremely Large Telescopes, to be held at Abdus Salam International Center For Theoretical Physics, Trieste, Italy** during 2 Jul - 6 Jul 2018.
- **Member, SOC, IFPU Workshop on Cosmological Tensions** at Trieste, Italy, May 2023.
- **Chair, SOC, 32nd IAGRG meeting** at IISER Kolkata in December 2022.

LIST OF PUBLICATION

- 1. Revisiting the concordance CDM model using Gamma-Ray Bursts together with supernovae Ia and Planck data**
Shahnawaz A. Adil, Maria G. Dainotti, Anjan A. Sen
JCAP **08**, 015 (2024).
- 2. CDM Tensions: Localising Missing Physics through Consistency Checks**
Ozgur Akarsu, Eoin O. Colgain, Anjan A. Sen, M.M. Sheikh-Jabbari
Universe **10**, 305, (2024).
- 3. Negative cosmological constant in the dark energy sector: tests from JWST photometric and spectroscopic observations of high-redshift galaxies**
Nicola Menci, Shahnawaz A. Adil, Upala Mukhopadhyay, Anjan A. Sen, Sunny Vagnozzi
JCAP **07**, 072, (2024)
- 4. Gravitational atoms in the braneworld scenario**
Sunil Singh Bohra, Subhodeep Sarkar, Anjan Ananda Sen
Phys.Rev.D **109**, 104021 (2024).
- 5. Late-time phenomenology required to solve the H0 tension in view of the Cosmic ladders and the anisotropic and angular BAO data**
Adria Gomez-Valent, Arianna Favale, Marina Migliaccio and Anjan A Sen
Phys. Rev. D **109** 023525 (2024).
- 6. Post-reionization HI-21 cm signal:a probe of negative cosmological constant**
Chandrachud B. V. Dash, Tapomoy Guha Sarkar and Anjan A Sen
Mon. Not. Roy. Astron. Soc., **527**, 11694 (2024)
- 7. Omnipotent dark energy: A phenomenological answer to the Hubble tension**
Shahnawaz A. Adil, Ozgur Akarsu, Eleonora Di Valentino, Rafael C. Nunes, Emre Ozulker, Anjan A. Sen, Enrico Specogna
Physical Review D, **109**, 023527 (2024).
- 8. S_8 increases with effective redshift in Λ CDM cosmology**
Shahnawaz A. Adil, Ozgur Akarsu, Mohammad Malekjani, Eoin Colgin, Saeed Pourojaghi, Anjan A. Sen, M. M. Sheikh-Jabbari
Mon. Not. Roy. Astron. Soc. Lett, **528**, L20 (2024).
- 9. Coupled Multi Scalar Field Dark Energy**
J. Alberto Vazquez, David Tamayo, Gabriela Garcia-Arroyo, Isidro Gmez-Vargas, Israel Quiros, Anjan A. Sen
Phys. Rev.D **109**, 023511 (2024)

10. **Dark energy in light of the early JWST observations: case for a negative cosmological constant?**
Shahnawaz A. Adil, Upala Mukhopadhyay, Anjan A. Sen, Sunny Vagnozzi
JCAP, **10** 072 (2023)
11. **Post-reionization 21-cm power spectrum for bimetric gravity and its detectability with SKA1-mid telescope**
Ajay Bassi, Bikash R. Dinda, Anjan A. Sen
J.Astrophys.Astron. **44** , 93 (2023).
12. **Traversable wormholes in bi-metric gravity**
Mostafizur Rahman, Anjan A Sen, Sunil Singh Bohra
Phys. Rev. D **108**, 104008 (2023).
13. **Observational Constraints on Axion(s) with a Cosmological Constant**
Ruchika, Koushik Dutta, Ankan Mukherjee, Anjan A. Sen
Phys.Dark Univ. **40**, 101199 (2023).
14. **Cosmological Evolution in Bimetric Gravity: Observational Constraints and LSS Signatures**
Ajay Bassi, Shahnawaz A. Adil, Manvendra Pratap Rajvanshi, Anjan A. Sen
Eur.Phys.J.C **83**, 525 (2023)
15. **21 cm Power Spectrum in interacting cubic Galileon model**
Bikash K. Dinda, Md. Wali Hossain and Anjan A Sen
J.Astrophys.Astron. **44**, 85 (2023).
16. **Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies**
E. Abdalla et al.
JHEAp, **34**, 49 (2022) **cited 302 times.**
17. **Do cosmological observations allow a negative Λ ?**
Anjan A. Sen, Shahnawaz A. Adil, Somasri Sen
Mon. Not. Roy. Astron. Soc. **518**, 1098-1105, (2022).
18. **Dynamics of tachyon dark energy on large scales and its imprint on observed galaxy power spectrum**
Ajay Bassi, Ankan Mukherjee and Anjan A Sen
Phys.Rev.D **103**, 123522 (2021)
19. **Bayesian model selection on Scalar ϵ -Field Dark Energy**
J. Alberto Vzquez, David Tamayo, Anjan A. Sen, Israel Quiros
Phys.Rev.D **103**, 043506 (2021)

20. **Dark Energy with Phantom Crossing and the H_0 tension**
Eleonora Di Valentino, Ankan Mukherjee, Anjan A. Sen
Entropy **23** 404 (2021).
Cited 108 times
21. **Cosmology Intertwined III: f_8 and S_8**
Eleonora Di Valentino et al.
Astropart.Phys. **131**, 1023604 (2021).
22. **Snowmass2021 - Letter of interest cosmology intertwined IV: The age of the universe and its curvature**
Eleonora Di Valentino et al.
Astropart.Phys. **131**, 1023607 (2021).
23. **Snowmass2021 - Letter of interest cosmology intertwined I: Perspectives for the next decade** Eleonora Di Valentino et al.
Astropart.Phys. **131**, 1023606 (2021).
24. **Snowmass2021 - Letter of interest cosmology intertwined II: The hubble constant tension**
Eleonora Di Valentino et al.
Astropart.Phys. **131**, 1023605 (2021).
25. **Study of cubic Galileon gravity using N -body simulations**
Jiajun Zhang, Bikash R. Dinda, Md. Wali Hossain, Anjan A. Sen, Wentao Luo
Phys.Rev.D **102** 4, 043510 (2020).
26. **Is there an early Universe solution to the Hubble tension?**
Chethan Krishnan, Eoin . Colgin, Ruchika, Anjan A. Sen, M.M. Sheikh-Jabbari, Tao Yang.
Phys.Rev.D **102** 10, 103525 (2020).
Cited 67 times
27. **Beyond Λ CDM with low and high redshift data: implications for dark energy**
Koushik Dutta, Ruchika, Anirban Roy, Anjan A Sen, M.M. Sheikh-Jabbari
Gen.Rel.Grav. 52, 15, (2020).
Cited 79 times
28. **Cosmology with low-redshift observations: No signal for new physics**
Koushik Dutta, Anirban Roy, Ruchika, Anjan A. Sen, M.M. Sheikh-Jabbari
Phys.Rev. D **100**, 103501 (2019).
29. **Fate of Strong Cosmic Censorship Conjecture in Presence of Higher Spacetime Dimensions**
Mostafizur Rahman, Sumanta Charkraborty, Soumitra Sengupta, Anjan A Sen
JHEP, **1903**, 178 (2019).

30. **Astrophysical Signatures of Black holes in Generalized Proca Theories**
Mostafizur Rahman, Anjan A Sen
Physical Review D, **99**, 024052 (2019).
31. **Model independent constraints on dark energy evolution from low-redshift observations**
Salvatore Capozziello, Ruchika, Anjan A Sen
Monthly Notices of Royal Astronomical Society, **484**, 4484, (2019).
Cited 89 times
32. **A new recipe for Λ CDM**
Varun Sahni and Anjan A Sen
The European Physical Journal C **77**, 225 (2017).
33. **Prospects of probing quintessence with HI 21-cm intensity mapping survey**
Azam Hossain, Shruti Thakur, Tapomoy Guha Sarkar, Anjan A Sen
arXiv:1603.02087 [astro-ph.CO]
Monthly Notices of Royal Astronomical Society, **463**, 3492, (2016).
34. **Thirty Meter Telescope Detailed Science Case: 2015**
W. Skidmore *et al.*
Res.Astron.Astrophys. **15**, 1945 (2015). arXiv:1505.01195 [astro-ph.IM].
35. **ScalPy: A Python Package for late time scalar field cosmology**
Sumit Kumar, Abhishek Jana and Anjan A Sen
arXiv:1502.02407[astro-ph.CO].
36. **Thawing quintessence from the inflationary epoch to today**
Gaveshna Gupta, Raghavan Rangarajan and Anjan A Sen
Phys.Rev.D **92**, 123003 (2015).
37. **A Geometric Approach to Modulus Stabilization**
Sampurn Ananda, Debajyoti Choudhury, Anjan A Sen and Soumitra Sengupta
Physical Review D, **92**, 026008 (2015).
38. **Cosmological evolution in a two-brane warped geometry model**
Sumit Kumar, Anjan A Sen and Soumitra Sengupta
Physics Letters B, **747**, 351, (2015).
39. **Post-Planck Dark Energy Constraints**
Dhiraj Kumar Hazra, Subhabrata Majumdar, Supratik Pal, Sudhakar Panda and Anjan A Sen
Physical Review D, **91**, 0835005 (2015).
40. **Clustering GCG: a viable option for unified dark matter-dark energy**
Sumit kumar and Anjan A Sen
JCAP, **10** 036 (2014).

41. **Inflationary generalized Chaplygin gas and dark energy in the light Planck and BICEP2 experiment**
Bikas R Dinda, Sumit Kumar and Anjan A Sen
Physical Review D, **90**, 083515 (2014).
42. **Can structure formation distinguish Λ CDM from non-minimal $f(R)$ gravity?**
Shruti Thakur and Anjan A Sen
Physical Review D **88**, 044043 (2013).
43. **Cosmology with Axion-quintessence coupled with Dark Matter**
Sumit Kumar, Sudhakar Panda and Anjan A Sen
Classical and Quantum Gravity, **30**, 155011 (2013).
44. **Constraining Thawing Dark Energy Using Galaxy Number Counts**
N. Chandrachani Devi, T. Roy Choudhury and Anjan A Sen
Monthly Notices of Royal Astronomical Society, **432**, 1513, (2013).
45. **DBI Galileon and Late time acceleration of the universe**
Sampurnanand and Anjan A Sen
JCAP, **1212**, 019, (2012)
46. **Deviation From Λ CDM With Cosmic Strings Networks**
Sumit Kumar, Akhilesh Nautiyal and Anjan A Sen
The European Physical Journal C **73**, 2562 (2013).
47. **Thawing Versus. Tracker Behaviour: Observational Evidence**
Shruti Thakur, Akhilesh Nautiyal, Anjan A Sen and T.R. Seshadri
Monthly Notices of Royal Astronomical Society, **427**, 988 (2012).
48. **Do Observations Favour Galileon Over Quintessence?**
Md. Wali Hossain and Anjan A Sen
Physics Letters B, **713**, 140, (2012).
49. **GCG Parametrization for Growth Function and Current Constraints**
Gaveshna Gupta, Somasri Sen and Anjan A Sen
JCAP **1204**, 028, (2012).
50. **Constraining Thawing Quintessence**
Gaveshna Gupta, Subhabrata Majumdar and Anjan A Sen
Monthly Notices of Royal Astronomical Society, **420**, 1309, (2012).
51. **Cosmology of Horava-Lifshitz $f(R)$ Gravity**
Sayan K. Chakrabarti, Koushik Dutta and Anjan A Sen
Physics Letters B, **711**, 147 (2012).
52. **Observational Constraints on Axions as Quintessence in String Theory**

- Gaveshna Gupta, Sudhakar Panda and Anjan A Sen
Physical Review D, **85**, 023501 (2012).
53. **Standard Cosmology Delayed**
Debajyoti Choudhury, Debashis Ghoshal and Anjan A Sen
JCAP, **1202**, 046 (2012).
54. **Horava-Lifshitz cosmology with generalized Chaplygin gas**
Amna Ali, Sourish Dutta, Emmanuel N. Saridakis, Anjan A. Sen
General Relativity and Gravitation, **44**, 657, (2012).
Cited 24 times.
55. **WMAP Constraints On K-Inflation**
N. Chandrachani Devi, Akhilesh Nautiyal and Anjan A Sen
Physical Review D, **84**, 103504 (2011).
56. **Solar System Constraints on Scalar Tensor Theories with Non-Standard Action**
N. Chandrachani Devi, Sudhakar Panda and Anjan A Sen
Physical Review D, **84**, 063521 (2011).
57. **Non-minimally coupled $f(R)$ Cosmology**
Shruti Thakur, Anjan A Sen, T.R. Seshadri
Physical Letters B, **696**, 309 (2011).
58. **Evolution of Spherical Overdensity in Thawing Dark energy Models**
N.Chandrachani Devi, Anjan A Sen
Monthly Notices of Royal Astronomical Society, **413**, 2371 (2011).
59. **A new approach to modified-gravity models**
Sayan K. Chakrabarti, Emmanuel N. Saridakis, Anjan A. Sen
General Relativity and Gravitation, **43**, 3065 (2011).
60. **Background cosmological dynamics in $f(R)$ gravity and observational constraints**
Amna Ali, Radouane Gannouji, M. Sami, Anjan A. Sen
Physical Review D, **81**, 104029 (2010).
Cited 19 times.
61. **The thawing dark energy dynamics: Can we detect it?**
S. Sen, A.A. Sen and M. Sami
Physics Letters B, **686**,1 (2010).
62. **Cosmology with non-minimally coupled K-Field**
A.A. Sen and N. Chandrachani Devi
General Relativity and Gravitation, **42**, 821 (2010).

63. **Non-minimal quintessence and phantom with nearly flat potentials**
 Gaveshna Gupta, Emmanuel N. Saridakis, Anjan A. Sen
 Physical Review D, **79**, 123013 (2009).
Cited 65 times.
64. **The transient and the late time attractor tachyon dark energy: Can we distinguish it from quintessence ?**
 Amna Ali, M. Sami, A.A. Sen
 Physical Review D, **79**, 123501 (2009).
Cited 24 times.
65. **Non-Minimal Quintessence with nearly flat potential**
 Anjan A Sen, Gaveshna Gupta and Sudipta Das
 JCAP **0909**, 027 (2009).
66. **Phantom Dark Energy Models with a Nearly Flat Potential**
 Robert J. Scherrer, A.A. Sen
 Physical Review D, **78**, 067303 (2008)
Cited 75 times.
67. **Cosmological Scaling Solutions with Tachyon:Modified Gravity Model**
 A.A. Sen and N.Chandrachani Devi
 Physics Letters B **668**, 182 (2008).
68. **Reconstructing the interaction rate in holographic models of dark energy**
 Anjan A Sen and Diego Pavon
 Physics letters **B 664**, 7 (2008).
69. **Thawing quintessence with a nearly flat potential**
 Robert J. Scherrer, A.A. Sen
 Physical Review D, **77**, 083515 (2008)
Cited 180 Times.
70. **Deviation for Λ CDM: Pressure Parametrization**
 A.A. Sen
 Physical Review D **77**, 043508 (2008).
71. **The Weak Energy Condition and the Expansion of the History of the Universe**
 A.A. Sen and R.J. Scherrer
 Physics Letters B, **659**, 457 (2008)
Cited 59 Times.
72. **Phantom Dark Energy Models with Negative Kinetic Term**
 J. Kujat, R.Scherrer and A.A. Sen
 Physical Review D **74**, 083501, (2006)
Cited 66 times.

73. **Tachyon Matter in Loop-Inspired Cosmology**
A.A. Sen
Physical Review D **74**, 045301 (2006).
74. **Reconstructing K-essence**
A.A. Sen
Journal of Cosmology and Astroparticle Physics **03**, 010 (2006)
Cited 38 times.
75. **Structure Formation and CMBR Anisotropy Spectrum in the In-
flessence Model**
A.A. Sen, Vincenzo F. Cardone, S. Capozziello and A. Troisi
Astronomy and Astrophysics **460**, 29 (2006).
76. **Generalizing the Generalized Chaplygin Gas**
A.A.Sen and Robert Scherrer
Physical Review D **72**, 063511 (2005)
Cites 85 times.
77. **Supernovae Constraints on Models of Dark Energy Revisited**
M.C.Bento, O. Bertolami, N.M.C. Santos and A.A. Sen
Physical Review D **71**, 063501, (2005).
Top Cite, cited 85 times
78. **Generalized Chaplygin gas in a modified gravity approach**
T. Barreiro and A. A. Sen
Physical Review D, **70**, 124013 (2004)
Cited 54 times.
79. **The Revival of the Unified Dark Energy-Dark Matter Model?**
M.C. Bento, O. Bertolami and A.A.Sen
Physical Review D, **70**, 083519, (2004).
Top Cite, Cited 236 times
80. **Latest Supernova data in the framework of Generalised Chaplygin
Gas model**
O.Bertolami, A.A.Sen, S.Sen, P.T.Silva
Monthly Notices Of Royal Astronomical Society, **353**, 329 (2004).
Top Cite, Cited 185 Times.
81. **WMAP bounds on braneworld tachyonic inflation**
M.C. Bento, N.M.C. Santos, A.A. Sen
International Journal for Modern Physics D, **13**, 1927 (2004).
82. **WMAP and supergravity inflationary models**
M.C. Bento, N.M.C. Santos, A.A. Sen
Physical Review D, **69**, 023508 (2004).

83. **Generalized Chaplygin Gas Model: Dark Energy - Dark Matter Unification and CMBR Constraints**
M.C. Bento, O. Bertolami and A.A.Sen
Essay Selected for an Honorable Mention by the Gravity Research Foundation Essay Competition, 2003.
General Relativity and Gravitation, **35**, 2063 (2003)
Cited 97 times .
84. **WMAP Constraints on the Generalized Chaplygin Gas Model**
M.C. Bento, O. Bertolami and A.A. Sen
Physics Letters, **B575**, 172 (2003).
Cited 237 Times.
85. **WMAP constraints on Cardassian model**
A.A. Sen and S. Sen
Physical Review D, **68**, 023513, (2003)
Cited 25 times.
86. **WMAP Constraints on Quintessence**
T. Barreiro, M.C. Bento, N.M.C. Santos and A.A. Sen
Physical Review D, **68**, 043515 (2003).
87. **Observational Constraints on Cardassian Expansion**
S. Sen and A.A. Sen,
Astrophysical Journal, **588**, 1 (2003)
Cited 59 times.
88. **Generalized Chaplygin gas and CMBR constraints**
M.C. Bento, O. Bertolami and A.A. Sen,
Physical Review D, **67**, 063003 (2003).
Cited 263 times
89. **Tachyonic Inflation in Braneworld Scenario**
M.C. Bento, O. Bertolami and A.A. Sen,
Physical Review D, **67**, 063511 (2003).
Cited 125 Times.
90. **Supergravity Inflation on the Brane**
M.C. Bento, O. Bertolami and A.A. Sen,
Physical Review D, **67**, 023504 (2003)
Cited 25 times.
91. **Generalized Chaplygin Gas, Accelerated Expansion and Dark Energy-Matter Unification**
M. C. Bento, O. Bertolami, and A. A. Sen,
Physical Review D, **66**, 043507 (2002).
Renowned Paper: Cited 1728 Times.

92. **Quintessence Model with Double Exponential Potential**
 A.A. Sen and S. Sethi,
 Physics Letters , **B 532**, 159 (2002)
Cited 75 times.
93. **Brane Dynamics in the Randall-Sundrum model, Inflation and Graceful Exit**
 Somdatta Bhattacharya, Debajyoti Choudhury, Dileep Jatkar and Anjan Ananda Sen,
 Classical and Quantum Gravity, **19**, 5025 (2002).
94. **Quintessential Inflation with Dissipative fluid**
 A.A. Sen, Indrajit Chakrabarty and T.R. Sheshadri,
 General Relativity and Gravitation, **34**, 477 (2002).
95. **Late time acceleration in Brans-Dicke cosmology**
 S. Sen and A.A. Sen
 Physical Review D, **63**, 124006 (2001)
Cited 141 times.
96. **Dissipative fluid in Brans-Dicke theory and late time acceleration**
 A.A. Sen, S. Sen and S. Sethi,
 Physical Review D, **63**, 107501 (2001)
Cited 75 times.
97. **Cosmology in scalar tensor theory and asymptotically de-Sitter universe**
 A.A. Sen and S. Sen,
 Modern Physics Letters A, **16**, 1303 (2001)
Cited 68 Times
98. **Circular Cosmic String Loop in Brans-Dicke Theory**
 A. Barros, A.A. Sen and C. Romero,
 Brazilian Journal of Physics. **31**, 507 (2001).
99. **Vacuumless cosmic strings in Brans-Dicke theory**
 A.A. Sen,
 International Journal of Modern Physics D **10** 515 (2001).
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