

DATE OF BIRTH

May 17, 1971

MARITAL STATUS

Married

NATIONALITY

Indian

ADDRESS FOR CORRESPONDENCE

Center For Theoretical Physics,
Jamia Millia Islamia,
New Delhi 110025,
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.

ACADEMIC EXPERIENCE

- **Professor** at **Center For Theoretical Physics at Jamia Millia Islamia**, New Delhi, India from February 2013.
- **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: Google Scholars/INSPIREHEP)

Total Number of Publications: 73

Average Citation per Paper: 45

h-index: 26

Renowned Paper

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)

Cited 1300 times

Very Well Known Paper (citation 100-250): 06

Well Known Paper (citation 50-99): 10

Known Paper (citation 10-49): 21

PARTICIPATION IN BIG PROJECTS

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

AWARDS and FELLOWSHIPS

- **Visitor Award 2014 by the Honorable President of India for Best Research**, jointly with three more researchers at CTP, JMI.
- **Research Associateship at Abdus Salam International Center For Theoretical Physics, Trieste, Italy** during 2009-2016.
- **Research Associateship at IUCAA, Pune, India** from 2007-2016.
- **Visiting Fellowship to the Theory Group at CERN, Geneva, Switzerland** during September 2011 for Two Weeks.
- **Visiting Fellowship to the Theory Group at CERN, Geneva, Switzerland** during April-May 2009 for two weeks.
- **Visiting Fellowship at Universitat Autònoma de Barcelona, Barcelona, Spain** for one month during November 2007.
- **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.

Past and Present Collaborators (during 2008-2015)

- Dr. Stefano Anselmi
Case Western Reserve University
Ohio, USA
- Dr. Diana Lopez-Nacir
Abdus Salam International Center For Theoretical Physics
Trieste, Italy
- Prof. Robert J Scherrer
Dept of Physics and Astronomy
Vanderbil University, Nashville, USA.
- Prof. Diego Pavon
Dept of Physics
Universitat Autònoma de Barcelona
Barcelona, Spain
- Dr. Subhabrata Majumdar
Theory Group
Tata Institute for fundamental Research
Mumbai, India
- Dr. T. Roy Choudhury
National Center For Radio Astronomy, TIFR
Pune, Mumbai, India.
- Prof. Sudhakar Panda
Harish Chandra Research Institute
Allahabad, India
- Prof. D. Choudhury
Dept of Physics and Astrophysics
University of Delhi, Delhi
India
- Prof. Soumitra Sengupta
Theory Group
Indian Association of Cultivation of Sciences, Kolkata
India
- Prof. Debasish Ghosal
School of Physical Sciences
Jawaharlal Nehru University, Delhi
India

- Dr. Sourish Dutta
Arizona State University
Tempe, Arizona, USA
- Dr. Emmanuel Saridakis
Athens University
Athens, Greece.
- Dr. Koushik Dutta
Theory Group, DESY
Hamburg, Germany.

RESEARCH GRANTS

- Principal Investigator
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
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
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.

PHD Thesis Supervision

- Dr. N.Chandrachani Devi
Enrolled in October 2007
Thesis Title: Issues of accelerating universe in particle physics and cosmology
Paper Published: 06
Current Status: **Phd Awarded**. Joined as Post Doctoral Fellow at Observatorio National, Rio de Janeiro, Brasil in November 2012.
- Dr. Gaveshna Gupta
Enrolled in October 2007
Thesis Title: Dark Side of the Universe and its observational signatures
Paper Published: 05
Current Status: **Phd Awarded**. Joined as a Post Doctoral Fellow at Physical Research Laboratory, Ahamedabad, India in May 2014.
- Mr. Sumit Kumar
Enrolled in November 2010
Thesis Title: Cosmological and Astrophysical Aspects of Einsteinian and Modified Gravity Theories
Current Status: **Thesis Writing**.
Paper Published: 05.
- Mr. Wali Hossain (Co-Supervisor)
Enrolled in Novemre 2011
Thesis Title:Aspects of Dark Universe in the Modified Theories of Gravity
Current Status: **Final Stage of Thesis Submission, Offered Post Doctoral Position at IUCAA, Pune**.
Paper Published: 08
- Mr. Bikas Dinda
Enrolled in November 2012
Current Status: Ongoing.
Paper Published: 01
- Mr. Azam Hossain
Enrolled in November 2013
Current Status: Ongoing
- Ms. Hadia Akhtar
Enrolled in October 2014
Current Status: Ongoing.

SUMMER PROJECT SUPERVISION

- Sumit Kumar, Dept of Physics, Jamia Millia Islamia, New Delhi, India in 2010.
- Md. Mustakim, Dept of Physics, Jamia Millia Islamia New Delhi, India in 2012.
- Aswin P Vijayan, National Institute of Technology, Calicut, India in 2013.
- Prashansa Gupta, Indian Institute for Science Education and Research, Mohali, India in 2013.
- Abhishek Jana, Indian Institute for Science Education and Research, Kolkata, India in 2014.

TEACHING EXPERIENCE

- General Theory of Relativity and Introductory Cosmology
One semester for Phd students at Center for Theoretical Physics, JMI.
- General Theory of Relativity
One Year for M.Sc Final year students at Dept of Physics, JMI. One semester for M.Sc final year students at Dept. of Physics, JMI.
- Statistical Techniques in Physics
Three Semesters for Phd students at Center For Theoretical Physics, JMI.
- Quantum Field Theory
Two Semesters for Phd students at Center For Theoretical Physics, JMI.
- Advance course on Cosmology
One semester for Phd students at Center For Theoretical Physics, JMI.
- Guest Lecturer
General Relativity and Cosmology Course
SERC School on Theoretical High Energy Physics (Preparatory), Organised by DST, Govt. of India.
1)S.G.B.T. Khalsa College, Delhi (2008);
2)BITS, Pilani, Goa, (2010).
- Lecturer
Course on Statistical Technique in Physics
SERC School on Theoretical High Energy Physics (Preparatory), Organised

by DST, Govt. of India at North Bengal University, West Bengal in October 2012.

- Lecturer
Course on Dark Energy
Autumn School on Cosmology
Organised by BITS, Pilani, Rajasthan, and IUCAA, Pune, India in November 2013.
- Lecturer
Course on Statistical Techniques in Physics
UGC-Refresher Course, March-2014
Organised by Academic Staff College, Noth Bengal University
West Bengal, India.

Selected INVITED TALKS/SEMINARS DELIVERED

- I have delivered an **invited Lecture** on Dark Energy and Accelerating Universe in the **Department of Physics and Astrophysics, University of Delhi**, in Delhi, India during Visitors Program Celebration in February 2008.
- I have delivered an **invited lecture** on Brane Inflation at **Indian Institute of Technology, Kharagpur, India** during the Physics of Warped Extra Dimension workshop, in February 2008.
- I have delivered a seminar on Cosmology with non-minimally coupled K-essence during the **CMB-LSS workshop at IUCAA, Pune, India** in August 2008.
- I have delivered a seminar on Dark Energy and Accelerating Universe at **Physical Research Laboratory, Ahmedabad, India**, under TPSC program in February 2009.
- I have delivered a seminar on Thawing Quintessence with Nearly Flat Potentials in the High Energy Division at **Abdus Salam International Center For Theoretical Physics, Trieste, Italy** in May 2009.
- I have delivered a seminar on Thawing Quintessence with Nearly Flat Potentials in the **Indian Conference on Cosmology and Galaxy Formation at Indian Institute of Technology, Kanpur** in October, 2009.
- I have delivered an **invited seminar** on Thawing Quintessence with Nearly Flat Potentials in the **Inaugural IEU Conference on Cosmology and Fundamental Physics at the Institute for Early Universe, Ewha Woman University, Seoul, Korea**, in May 2010.

- I have delivered an **invited seminar** on Thawing Quintessence with Nearly Flat Potentials in the **Korea Institute For Advanced Science (KIAS) in Seoul, Korea** in May 2010.
- I Have delivered a seminar on Slow-Roll Scalar Field models of dark energy in the Cosmology Group weekly seminar at **Abdus Salam International Center For Theoretical Physics, Trieste, Italy** in July 2010.
- I have delivered an **invited seminar** on Thawing Dark energy models with nearly flat potentials in the **Theory Group at the Max-Planck Institute For Physics, Munich, Germany** in July 2010.
- I have delivered an **invited seminar** on Thawing Dark Energy Models with nearly flat potentials in the **Theory Group, Indian Association of Cultivation of Sciences, Kolkata, India** in December 2010.
- I have delivered the **invited plenary lecture** on Observational Cosmology at the **DAE-HEP Symposium at LNMIIT at Jaipur** in December 2010.
- I have delivered the **invited plenary lecture** on Understanding the late time acceleration of the Universe in the **IAGRG workshop at HRI, Allahabad**, in January 2011.
- I have delivered the **invited Institute Seminar** at the **Indian Institute of Science Education and Research, Kolkata, India** on “Understanding the late time acceleration of the universe”, in April 2011.
- I have delivered a talk on “ GCG Parametrization for Growth Function and Current Constraints” at the **ASI symposium on Cosmology and Galaxy Formation at IISER, Mohali** in November 2011.
- I have delivered a talk on “ Pressure Parametrization for Dark Energy” at **ICGC conference at Goa** in December 2011.
- I have delivered an **Invited talk** on ”Dark Energy and Late Time Acceleration of the Universe” at **AAPCOS-2012** held at Darrjeeling in March 2012, organised by S.I.N.P., Kolkata.
- I have Delivered an **invited Colloquium** on ”Late Time Acceleration of the Universe and Dark Energy Model Building” at the **Theory Group, T.I.F.R., Mumbai** during May 2012.
- I have delivered an **Invited Lecture** on ”Dark Side of the Universe: Era of New Cosmology” during event ”**Lectures on Nobel Prizes (2011)**” at **Indian Institute of Technology, Delhi** on 16th of May 2012.
- I have delivered an **Invited Seminar** on ”Late Time Acceleration of the Universe and Dark Energy Model Building” at **E.T.H, Zurich, Switzerland** during July 2012.

- I have delivered an **Invited Seminar** on "Dark Energy Model Building and Observational Signatures" at **I.S.I Kolkata**, India during January 2013.
- I have delivered an **invited talk** "Dark energy model building and observational issues" at **National Conference on High Energy Physics and Cosmology at University of Guwahati, Guwahati, Assam, India** during 12-14th February 2013.
- I have delivered an **invited talk** on "Late time acceleration of the Universe: Model building and observational issues" at **Edinburgh Delhi Particle Physics Symposium, New Delhi** during 15-17 February 2013.
- I have delivered an **invited talk** on "Dark energy model building and observational issues" at **30th Meeting of Astronomical Society of India** during 20-22nd February 2013 at Trivanthapuram, India.
- I have delivered a talk on "Solar System Constraint on Scalar Tensor Theories With Non-standard action" in **GR-20 conference at University of Warsaw, Poland** during July 2013.
- I have delivered an **invited talk** on "Story of Dark Universe" at the **Frontiers in Physics, held at University of Hyderabad, Hyderabad, India** during September 2013.
- I have delivered an **invited talk** on "Post Planck Dark Energy Constraints" at the **Symposium on Astroparticle Physics and Cosmology, held at Saha Institute of Nuclear Physics, Kolkata, India** during January 2014.
- I have delivered an **invited talk** on "Dark Energy After Planck" at the conference **Current Trends in Particle Physics Research (CTPPR 2014)** at **Kalyani University, Kalyani, West Bengal, India** in March 2014.
- I have delivered an **invited seminar** on "Dark Energy After Planck" at **Institute of Physics, Bhubaneswar, India** in May 2014
- I have delivered an **invited talk** on "Standard Cosmology Delayed" in the workshop **"Quantum Gravity, Strings and Black Holes"** at **Kavli Institute of Theoretical Physics, Beijing China** in June 2014.
- I have delivered a talk on "Standard Cosmology Delayed" at **ETH, Zurich** in August 2014.
- I have delivered an **invited talk** on "Current Status of Dark Energy" in the workshop **"Cosmology at the Interface"** at **SINP, Kolkata, India** in January 2015.
- I have delivered an **invited talk** on "Clustering GCG: a viable description for unified dark matter-dark energy?" at **IFIC, University of Valencia, Valencia, Spain** in June 2015.

- I have delivered an seminar on ” Standrad Cosmology Delayed” at **High Energy and Cosmology Division, Abdus Salam International Center For Theoretical Physics**, Trieste, Italy in June 2015.
- I have delivered an **invited talk** on ” Inflation on a two brane warped geometry model” at **ETH**, Zurich, Switzerland in July 2015.

Workshop, Schools Organized at CTP, JMI

- **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.
- **Convenor**, International Workshop on Dark Energy, held at Center For Theoretical Physics, J.M.I, New Delhi, India during 21st-23rd December 2011.
- **Member, Organising Committee**, Symposium on Astro-Particle and Nuclear Physics, held at Center For Theoretical Physics, Jamia Millia Islamia, New Delhi, India during January 2014.
- **Member Organizing Committee**, International Conference on Matterr of Gravity and the Universe, held at CTP, JMI, New Delhi, India during October 2014.
- **Coordinator**, Workshop on Cosmology with Large Scale Structures, to be held at CTP, JMI, New Delhi, India during 5th-9th January 2015.

ACTIVITIES

- **Council Member** for Indian Associate for General Relativity and Gravitation (IAGR).
- **Life Member** of the Indian Association for General Relativity and Gravitation.
- Refereeing: Physics Letters B, Modern Physics Letters A, Astrophysics and Space Sciences, Europhysics Letters, General Relativity and Gravitation, Pragma, European Physical Journal C.
- **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 to be held at Indian Institute of Technology, Kanpur, India in 4-13 December 2015.
- **Member, Organising Committee**, XXVII IUPAP Conference on Computational Physics to be held at Indian Institute of Technology, Guwahati, India in 2-5 December 2015.

REFERENCES

- Prof. Narayan Banerjee
IISER, Kolkata
Nadia, West Bengal 741252, India
email:narayan@iiserkol.ac.in
- Prof. Orfeu Bertolami
Departamento de Fisica e Astronomia, Faculdade de Ciencias, Universidade do Porto
Porto, Portugal
email: orfeu.bertolami@fc.up.pt
- Prof. Sudhakar Panda
Director
Institute of Physics, Bhubaneswar
Orissa, India
email:panda@iopb.res.in
- Prof. Robert J. Scherrer
Dept of Physics and Astronomy
Vanderbilt University
Nashville, TN 37235, USA
email: robert.scherrer@vanderbil.edu
- Prof. Soumitra Sengupta
Theory Group
Indian Association for Cultivation of Sciences
Kolkata, 700032, WB, India
email:tpssg@mahendra.iacs.res.in
- Prof. Diego Pavon
Departamento de Fisical, Faculdal de Ciencias
Universidad Autonoma de Barcelona
Bellaterra, Barcelona, Spain
email: diego.pavon@uab.es

PUBLICATION LIST OF ANJAN ANANDA SEN

Total number of citations for the published papers: 3812 (Google Scholar)
h-index : 26 (Google Scholar)

1. **Thirty Meter Telescope Detailed Science Case: 2015**
W. Skidmore *et al.*
arXiv:1505.01195 [astro-ph.IM].
2. **Prospect of probing dark energy using stochastic gravitational waves**
B. R. Dinda and A. A. Sen
arXiv:1504.03920 [astro-ph.CO], communicated.
3. **ScalPy: A Python Package for late time scalar field cosmology**
Sumit Kumar, Abhishek Jana and Anjan A Sen
arXiv:1502.02407, Communicated
4. **Thawing quintessence from the inflationary epoch to today**
Gaveshna Gupta, Raghavan Rangarajan and Anjan A Sen
arXiv:1412.6915, Communicated.
5. **A Geometric Approach to Modulus Stabilization**
Sampurn Ananda, Debajyoti Choudhury, Anjan A Sen and Soumitra Sengupta
Physical Review D, **92**, 026008 (2015).
6. **Cosmological evolution in a two-brane warped geometry model**
Sumit Kumar, Anjan A Sen and Soumitra Sengupta
Physics Letters B, **747**, 351, (2015).
7. **Post-Planck Dark Energy Constraints**
Dhiraj Kumar Hazra, Subhabrata Majumdar, Supratik Pal, Sudhakar Panda and Anjan A Sen
Physical Review D, **91**, 0835005 (2015).
8. **Clustering GCG: a viable option for unified dark matter-dark energy**
Sumit kumar and Anjan A Sen
JCAP, **10** 036 (2014).
9. **Inflationary generalized Chaplygin gas and dark energy in the light Plank and BICEP2 experiment**
Bikas R Dinda, Sumit Kumar and Anjan A Sen
Physical Review D, **90**, 083515 (2014).
10. **Can structure formation distinguish Λ CDM from non-minimal f(R) gravity?**
Shruti Thakur and Anjan A Sen
Physical Review D **88**, 044043 (2013).

11. **Cosmology with Axion-quintessence coupled with Dark Matter**
Sumit Kumar, Sudhakar Panda and Anjan A Sen
Classical and Quantum Gravity, **30**, 155011 (2013).
12. **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).
13. **DBI Galileon and Late time acceleration of the universe**
Sampurnanand and Anjan A Sen
JCAP, **1212**, 019, (2012)
14. **Deviation From Λ CDM With Cosmic Strings Networks**
Sumit Kumar, Akhilesh Nautiyal and Anjan A Sen
The European Physical Journal C **73**, 2562 (2013).
15. **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).
16. **Do Observations Favour Galileon Over Quintessence?**
Md. Wali Hossain and Anjan A Sen
Physics Letters B, **713**, 140, (2012).
17. **GCG Parametrization for Growth Function and Current Constraints**
Gaveshna Gupta, Somasri Sen and Anjan A Sen
JCAP **1204**, 028, (2012).
18. **Constraining Thawing Quintessence**
Gaveshna Gupta, Subhabrata Majumdar and Anjan A Sen
Monthly Notices of Royal Astronomical Society, **420**, 1309, (2012).
19. **Cosmology of Horava-Lifshitz $f(R)$ Gravity**
Sayan K. Chakrabarti, Koushik Dutta and Anjan A Sen
Physics Letters B, **711**, 147 (2012).
20. **Observational Constraints on Axions as Quintessence in String Theory**
Gaveshna Gupta, Sudhakar Panda and Anjan A Sen
Physical Review D, **85**, 023501 (2012).
21. **Standard Cosmology Delayed**
Debajyoti Choudhury, Debashis Ghoshal and Anjan A Sen
JCAP, **1202**, 046 (2012).
22. **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.

23. **WMAP Constraints On K-Inflation**
N. Chandrachani Devi, Akhilesh Nautiyal and Anjan A Sen
Physical Review D, **84**, 103504 (2011).
24. **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).
25. **Non-minimally coupled $f(R)$ Cosmology**
Shruti Thakur, Anjan A Sen, T.R. Seshadri
Physical Letters B, **696**, 309 (2011).
26. **Evolution of Spherical Overdensity in Thawing Dark energy Models**
N.Chandrachani Devi, Anjan A Sen
Monthly Notices of Royal Astronomical Society, **413**, 2371 (2011).
27. **A new approach to modified-gravity models**
Sayan K. Chakrabarti, Emmanuel N. Saridakis, Anjan A. Sen
General Relativity and Gravitation, **43**, 3065 (2011).
28. **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.
29. **The thawing dark energy dynamics: Can we detect it?**
S. Sen, A.A. Sen and M. Sami
Physics Letters B,**686**,1 (2010).
30. **Cosmology with non-minimally coupled K-Field**
A.A. Sen and N. Chandrachani Devi
General Relativity and Gravitation, **42**, 821 (2010).
31. **Non-minimal quintessence and phantom with nearly flat potentials**
Gaveshna Gupta, Emmanuel N. Saridakis, Anjan A. Sen
Physical Review D, **79**, 123013 (2009).
32. **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.
33. **Non-Minimal Quintessence with nearly flat potential**
Anjan A Sen, Gaveshna Gupta and Sudipta Das
JCAP **0909**, 027 (2009).

34. **Phantom Dark Energy Models with a Nearly Flat Potential**
Robert J. Scherrer, A.A. Sen
Physical Review D, **78**, 067303 (2008)
Cited 44 times.
35. **Cosmological Scaling Solutions with Tachyon:Modified Gravity Model**
A.A. Sen and N.Chandrachani Devi
Physics Letters B **668**, 182 (2008).
36. **Reconstructing the interaction rate in holographic models of dark energy**
Anjan A Sen and Diego Pavon
Physics letters **B 664**, 7 (2008).
37. **Thawing quintessence with a nearly flat potential**
Robert J. Scherrer, A.A. Sen
Physical Review D, **77**, 083515 (2008)
Cited 98 Times.
38. **Deviation for Λ CDM: Pressure Parametrization**
A.A. Sen
Physical Review D **77**, 043508 (2008).
39. **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 36 Times.
40. **Phantom Dark Energy Models with Negative Kinetic Term**
J. Kujat, R.Scherrer and A.A. Sen
Physical Review D **74**, 083501, (2006)
Cited 46 times.
41. **Tachyon Matter in Loop-Inspired Cosmology**
A.A. Sen
Physical Review D **74**, 045301 (2006).
42. **Reconstructing K-essence**
A.A. Sen
Journal of Cosmology and Astroparticle Physics **03**, 010 (2006)
Cited 38 times.
43. **Structure Formation and CMBR Anisotropy Spectrum in the Inflation Model**
A.A. Sen, Vincenzo F. Cardone, S. Capozziello and A. Troisi
Astronomy and Astrophysics **460**, 29 (2006).

44. **Generalizing the Generalized Chaplygin Gas**
A.A.Sen and Robert Scherrer
Physical Review D **72**, 063511 (2005)
Cites 76 times.
45. **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 91 times
46. **Generalized Chaplygin gas in a modified gravity approach**
T. Barreiro and A. A. Sen
Physical Review D, **70**, 124013 (2004)
Cited 44 times.
47. **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 205 times
48. **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 192 Times.
49. **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).
50. **WMAP and supergravity inflationary models**
M.C. Bento, N.M.C. Santos, A.A. Sen
Physical Review D, **69**, 023508 (2004).
51. **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 74 times .
52. **WMAP Constraints on the Generalized Chaplygin Gas Model**
M.C. Bento, O. Bertolami and A.A. Sen
Physics Letters, B575, 172 (2003).
Top Cite, Cited 212 Times.

53. **WMAP constraints on Cardassian model**
A.A. Sen and S. Sen
Physical Review D, **68**, 023513, (2003)
Cited 25 times.
54. **WMAP Constraints on Quintessence**
T. Barreiro, M.C. Bento, N.M.C. Santos and A.A. Sen
Physical Review D, **68**, 043515 (2003).
55. **Observational Constraints on Cardassian Expansion**
S. Sen and A.A. Sen,
Astrophysical Journal, **588**, 1 (2003)
Cited 53 times.
56. **Generalized Chaplygin gas and CMBR constraints**
M.C. Bento, O. Bertolami and A.A. Sen,
Physical Review D, **67**, 063003 (2003).
Top Cite, Cited 244 times
57. **Tachyonic Inflation in Braneworld Scenario**
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