

DEBANJAN BOSE

Associate Professor & Head
Department of Physics
Central University of Kashmir
debaice@gmail.com, debanjan.bose@cukashmir.ac.in
+91 9007184162

Book

1. **High Energy Astrophysical Neutrinos**

Debanjan Bose & Subhendu Rakshit, Springer Briefs in Astronomy (2021)

Review Articles

1. **Very-high-energy gamma-ray astronomy**

D. Bose, V.R. Chitnis, The European Physical Journal ST, Vol. 231, number 1 (page 1) 2022

2. **Ground-based gamma-ray astronomy: history and development of techniques**

D. Bose, V.R. Chitnis, P. Majumdar, B. S. Acharya, The European Physical Journal ST, Vol. 231, number 1 (page 3) 2022

3. **Galactic and Extragalactic Sources of Very High Energy Gamma-rays**

D. Bose, V. R. Chitnis, P. Majumdar, A. Shukla The European Physical Journal ST, Vol. 231, number 1 (page 27) 2022

4. **Image of the Milky Way Plane in Neutrinos by IceCube**

Debanjan Bose, Bulletin of The Indian Physics Association, Vol. 53, number 3 (page 29-33) 2023

Publications in Refereed Journals

1. **Revisiting neutrino event epochs for the blazar PKS 0735+178 with TESS**

Shubham Kishore, Alok C. Gupta & **Debanjan Bose**

Accepted in The Astrophysical Journal

2. **Very High Energy Afterglows from Gaussian Structured Jets in Wind-driven medium and Prospects for CTA Detectability of events like GRB 221009A**

Tanima Mondal, Sabyasachi Chakraborty, Lekshmi Resmi & **Debanjan Bose**

Physical Review D, 114, 063027, 2026

Debanjan Bose

3. **Multi Messenger Study of GRB 221009A with VHE Gamma-ray and Neutrino Afterglow from a Gaussian Structured Jet**
Tanima Mondal, Soebur Razzaque, Jagdish C. Joshi, Sonjoy Majumder & **Debanjan Bose**
Journal of High Energy Astrophysics, 53, 100636, 2026
4. **Sensitivity of the Hyper-Kamiokande experiment to neutrino oscillation parameters using accelerator neutrinos**
Hyper-Kamiokande Collaboration
The European Physical Journal C, 86, 170, 2026
5. **Evaluating plastic scintillator performance as a substitute of LYSO in SiPM based animal PET scanners: A GEANT4 simulation analysis**
Davinder Siwal, P. K. Mohanty, **D. Bose**, A. Jain
Journal of Instrumentation, 20, P11001, 2025
6. **Exploring year-timescale transient and long-term Quasi-Periodic Oscillations in Optical and Gamma-ray light curves of Blazars**
Ajay Sharma, Sakshi Chaudhary, Aishwarya Sarath, & **Debanjan Bose**
Journal of High Energy Astrophysics, 50, 100466, 2026
7. **Broadband Spectral Modeling of Blazars: Constraining the Lorentz Factor and Gamma-Ray Emission Site**
Ajay Sharma, Aishwarya Sarath, Sakshi Chaudhary, & **Debanjan Bose**
Journal of High Energy Astrophysics, 49, 100452, 2026
8. **Unraveling the broadband spectrum of B2 1308+326: A clue to its high energy emission mechanism**
Athar A. Dar, Zahir Shah, Sunder Sahayanathan, Naseer Iqbal, Subir Bhattacharyya & **Debanjan Bose**
New Astronomy, 121, 102463, 2025
9. **Searching for quasi periodic oscillations in optical and γ -ray emissions & black hole mass estimation of blazar ON 246**
Ajay Sharma, Raj Prince & **Debanjan Bose**
Publications of the Astronomical Society of Australia, 42, 112, 2025
10. **Comprehensive variability analysis of blazars using Fermi light curves across multiple timescales**
Zahir Shah, Athar A. Dar, Sikandar Akbar, Anjum Peer, Zahoor Malik, Aaqib Manzoor, Sajad Ahanger, Javaid Tantry, Zeeshan Nazir, **Debanjan Bose**, and Mushtaq Magray
Physical Review D 111, 123052, 2025
11. **From microquasars to AGN: A uniform jet variability**
Ajay Sharma, Raj Prince & **Debanjan Bose**
Physical Review D 111, 083049, 2025
12. **Study of Multi-Wavelength Variability, Emission Mechanism and Quasi-Periodic Oscillation for Transition Blazar S5 1803+784**
Javaid Tantry, Ajay Sharma, Zahir Shah, Naseer Iqbal & **Debanjan Bose**
Journal of High Energy Astrophysics, 47, 100372, 2025
13. **Follow-up of Neutron Star Mergers with CTA and Prospects for Joint Detection with Gravitational-Wave Detector**
T. Mondal, S. Chakraborty, L. Resmi & **D. Bose**
The Astrophysical Journal, 983, 35, 2025

14. **Detection of Quasi-periodic oscillations in gamma-rays for blazar PKS 2255-282**
Ajay Sharma, Anuvab Banerjee, Avik Kumar Das, Avijit Mandal & **Debanjan Bose**
The Astrophysical Journal, 975, 56, 2024
15. **Gravitational memory signal from neutrino self-interactions in supernova**
Soumya Bhattacharya, **Debanjan Bose**, Indranil Chakraborty, Arpan Hait, Subhendra Mohanty
Physical Review D 110, L061501, 2024
16. **Probing the disc-jet coupling in S4 0954+65, PKS 0903-57, & 4C +01.02 with γ -rays**
Ajay Sharma, Sushanth Reddy Kamaram, Raj Prince, Rukaiya Khatoon, and **Debanjan Bose**,
Monthly Notices of the Royal Astronomical Society, Vol. 527, 2672, 2024
17. **Quasi Periodic Oscillations Detected in Gamma-rays for Blazar PKS 0346-272**
Raj Prince, Anuvab Banerjee, Ajay Sharma, Avik Kumar das, Alok C. Gupta and **Debanjan Bose**,
Astronomy & Astrophysics, Vol. 678, A100, 2023
18. **Multi-Wavelength Study of Blazar 1ES 1218+304 using Gamma-ray, X-ray and Optical Data**
Rishank Diwan, Raj Prince, Aditi Agarwal, Pratik Majumdar, **Debanjan Bose**, Aykut Özdönmez, Ergün Ege,
Monthly Notices of the Royal Astronomical Society, Vol. 524, Issue 3, (Pages 4333-4345), 2023
19. **Detection of periodicity in the gamma-ray light curve of the BL Lac 4FGL J2202.7+4216**
Anuvab Banerjee, Ajay Sharma, Avijit Mondal, Avik Kumar das, Gopal Bhatta & Debanjan Bose,
Monthly Notices of the Royal Astronomical Society : Letters, Vol. 523, Issue 1, (Pages L52-L57), 2023
20. **Probing Gamma-Ray Burst afterglows with the Cherenkov Telescope Array**
Tanima Mondal, Suman Pramanick, Resmi Leksmi, Debanjan Bose,
Monthly Notices of the Royal Astronomical Society, Vol. 552, Issue 4, (Pages 5690-5700), 2023
21. **Multi-frequency Variability Study of Flat-Spectrum Radio Quasar PKS 0346-27**
Sushanth Reddy Kamaram, Raj Prince, Suman Pramanick and Debanjan Bose,
Monthly Notices of the Royal Astronomical Society, Vol. 520, Issue 2 (Page 2024-2038), 2023
22. **BROADBAND SPECTRO-TEMPORAL STUDY ON BLAZAR TXS 1700+685**
Anuvab Banerjee, Prantik Nandi, Raj Prince, Rukaiya Khatoon, Debanjan Bose,
Monthly Notices of the Royal Astronomical Society, Vol. 515, Issue 4 (page 4675-4684), 2022
23. **Multi-wavelength temporal and spectral analysis of Blazar S5 1803+78**
Shruti Priya, Raj Prince, Aditi Agarwal, Debanjan Bose, Aykut Özdönmez, and Ergün Ege,
Monthly Notices of the Royal Astronomical Society, Vol. 513, Issue 2 (page 2239-2251), 2022
24. **Study of Temporal and Spectral variability for Blazar PKS 1830-211 with Multi-Wavelength Data**
J. Abhir, R. Prince, J. Joseph, D. Bose & N. Gupta
The Astrophysical Journal, 26, 915, 2021
25. **Supernova Model Discrimination with Hyper-Kamiokande**
Hyper-Kamiokande Collaboration
The Astrophysical Journal, 15, 916, 2021
26. **Broadband Modelling of Orphan Gamma Ray Flares**

S. R. Patel, D. Bose, N. Gupta & M. Zuberi
Journal of High Energy Astrophysics, 29 (page 31-39), 2021

27. Multi Frequency Temporal and Spectral variability study of Blazar PKS 1424-418

J. Abhir, J. Joseph, S. R. Patel & D. Bose
Monthly Notices of the Royal Astronomical Society, Vol. 501, Issue 2 (page 2504-2511), 2021

28. Measurement of Atmospheric Neutrino Oscillations at 6–56 GeV with IceCube DeepCore

IceCube Collaboration, Physical Review Letters, 120, 071801, 2018

29. Search for nonstandard neutrino interactions with IceCube DeepCore

IceCube Collaboration, Physical Review D, 97, 072009, 2018

30. Measurement of the Multi-TeV Neutrino Cross Section with IceCube Using Earth Absorption

IceCube Collaboration, Nature, 551, 596-600, 2018

31. Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube

IceCube & ANTARES Collaborations, Physical Review D, 96, 022005, 2017

32. Search for sterile neutrino mixing using three years of IceCube DeepCore data

IceCube Collaboration, Physical Review D, 95, 112002, 2017

33. Measurement of the ν_μ energy spectrum with IceCube-79

IceCube Collaboration (M. G. Aartsen et al.), European Physical Journal C, 77, 692, 2017

34. Multiwavelength follow-up of a rare IceCube neutrino multiplet

IceCube Collaboration, Astronomy & Astrophysics, A115, 607, 2017

35. Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory

IceCube, ANTARES and Pierre Auger Collaborations, The Astrophysical Journal Letters, L35, 850, 2017

36. Extending the Search for Muon Neutrinos Coincident with Gamma-Ray Bursts in IceCube Data

IceCube Collaboration, The Astrophysical Journal, 112, 843, 2017

37. Constraints on Galactic Neutrino Emission with Seven Years of IceCube Data

IceCube Collaboration, The Astrophysical Journal, 67, 849, 2017

38. Search for Astrophysical Sources of Neutrinos Using Cascade Events in IceCube

IceCube Collaboration, The Astrophysical Journal, 136, 846, 2017

39. Multi-messenger Observations of a Binary Neutron Star Merger

IceCube, LIGO, Astrosat & many other Collaborations, The Astrophysical Journal Letters, L12, 848, 2017

40. Astrophysical Neutrinos and Cosmic Rays Observed by IceCube

IceCube Collaboration (M. G. Aartsen et al.), Advances in Space Research, in press, 62, 2902, 2018

41. The Contribution Of FERMI-2LAC Blazars To Diffuse TeV-PeV Neutrino Flux

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 45, 835, 2017

42. Search for Annihilating Dark Matter in the Sun with 3 Years of IceCube Data

IceCube Collaboration (M. G. Aartsen et al.), European Physical Journal C, 77, 146, 2017

43. First Search for Dark Matter Annihilations in the Earth with the IceCube Detector

IceCube Collaboration (M. G. Aartsen et al.), European Physical Journal C, 77, 82, 2017

44. PINGU: a vision for neutrino and particle physics at the South Pole

IceCube Gen2 Collaboration (M. G. Aartsen et al.), Journal of Physics, G44, 054006, 2017

45. The IceCube Neutrino Observatory: instrumentation and online systems

IceCube Collaboration (M. G. Aartsen et al.), Journal of Instrumentation, 12, P03012, 2017

46. The IceCube realtime alert system

IceCube Collaboration (M. G. Aartsen et al.), Astroparticle Physics, 92, 30-41, 2017

47. All-sky Search for Time-integrated Neutrino Emission from Astrophysical Sources with 7 yr of IceCube Data

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 151, 835, 2017

48. Very High-Energy Gamma-Ray Follow-Up Program Using Neutrino Triggers from IceCube

IceCube, MAGIC and VERITAS Collaborations (M. G. Aartsen et al.), Journal of Instrumentation, 11, P11009, 2016

49. Constraints on Ultra-High-Energy Cosmic-Ray Sources from a Search for Neutrinos Above 10 PeV with IceCube

IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 117, 241101, 2016

50. Observation and Characterization of a Cosmic Muon Neutrino Flux from the Northern Hemisphere Using Six Years of IceCube Data

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 3, 833, 2016

51. All-flavour Search for Neutrinos from Dark Matter Annihilations in the Milky Way with IceCube/DeepCore

IceCube Collaboration (M. G. Aartsen et al.), The European Physical Journal C, 76, 531, 2016

52. Anisotropy in Cosmic-Ray Arrival Directions in the Southern Hemisphere with Six Years of Data from the IceCube Detector

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 220, 826, 2016

53. Searches for Sterile Neutrinos with the IceCube Detector

IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 117, 071801, 2016

54. Lowering IceCube's Energy Threshold for Point Source Searches in the Southern Sky

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal Letters, L28, 824, 2016

55. High-Energy Neutrino Follow-Up Search of Gravitational Wave Event GW150914 with ANTARES and IceCube

ANTARES, IceCube, LIGO Scientific and Virgo Collaborations (S. Adrián-Martínez et al.), Physical Review D, 93, 122010, 2016

56. An All-Sky Search for Three Flavors of Neutrinos from Gamma-Ray Bursts with the IceCube Neutrino Observatory

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 115, 824, 2016

57. Neutrino Oscillation Studies with IceCube-DeepCore

IceCube Collaboration (M. G. Aartsen et al.), Nuclear Physics B, 908, 161-177, 2016

58. Searches for Relativistic Magnetic Monopoles in Ice

IceCube Collaboration (M. G. Aartsen et al.), The European Physical Journal C, 76, 133, 2016

59. Improved Limits on Dark Matter Annihilation in the Sun with the 79-string IceCube Detector and Implications for Supersymmetry

IceCube Collaboration (M. G. Aartsen et al.), Journal of Cosmology and Astroparticle Physics, JCAP04, 022, 2016

60. Characterization of the atmospheric muon flux in IceCube

IceCube Collaboration (M. G. Aartsen et al.), Astroparticle Physics, 78, 1-27, 2016

61. Search for Transient Astrophysical Neutrino Emission with IceCube-DeepCore

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 75, 816, 2016

62. Search for Correlations Between the Arrival Directions of IceCube Neutrino Events and Ultrahigh-Energy Cosmic Rays Detected by the Pierre Auger Observatory and the Telescope Array

The IceCube, Pierre Auger and Telescope Array Collaborations (M. G. Aartsen et al.), Journal of Cosmology and Astroparticle Physics, 01, 037, 2016

63. Search for Astrophysical Tau Neutrinos in Three Years of IceCube Data

IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 93, 022001, 2016

64. Search for Dark Matter Annihilation in the Galactic Center with IceCube-79

IceCube Collaboration (M. G. Aartsen et al.), The European Physical Journal C, 75, 492, 2015

65. Spectrometry of the Earth using Neutrino Oscillations

C. Rott, A. Taketa, D. Bose, Scientific Reports, 5, 15225, 2015

66. Detection of a Type II In Supernova in Optical Follow-up Observations of IceCube Neutrino Events

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 52, 811, 2015

67. **A Combined Maximum-Likelihood Analysis of the High-Energy Astrophysical Neutrino Flux Measured with IceCube**
IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 98, 809, 2015
68. **Evidence for Astrophysical Muon Neutrinos from the Northern Sky with IceCube**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 115, 081102, 2015
69. **Searches for Time Dependent Neutrino Sources with IceCube Data from 2008 to 2012**
IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 46, 807, 2015
70. **Measurement of the Atmospheric ν_e Spectrum with IceCube**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 91, 122004, 2015
71. **Search for Prompt Neutrino Emission from Gamma-Ray Bursts with IceCube**
IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal Letters, L5, 805, 2015
72. **Flavor Ratio of Astrophysical Neutrinos above 35 TeV in IceCube**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 114, 171102, 2015
73. **Determining neutrino oscillation parameters from atmospheric muon neutrino disappearance with three years of IceCube DeepCore data**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 91, 072004, 2015
74. **Searches for Small-Scale Anisotropies from Neutrino Point Sources with Three Years of IceCube Data**
IceCube Collaboration (M. G. Aartsen et al.), Astroparticle Physics, 66, 39-52, 2015
75. **Multipole Analysis of IceCube Data to Search for Dark Matter Accumulated in the Galactic Halo**
IceCube Collaboration (M. G. Aartsen et al.), The European Physical Journal C, 75, 20, 2015
76. **Development of a General Analysis and Unfolding Scheme and its Application to Measure the Energy Spectrum of Atmospheric Neutrinos with IceCube**
IceCube Collaboration (M. G. Aartsen et al.), The European Physical Journal C, 75, 116, 2015
77. **The IceProd Framework: Distributed Data Processing for the IceCube Neutrino Observatory**
IceCube Collaboration (M. G. Aartsen et al.), Journal of Parallel and Distributed Computing, 75, 2015
78. **Atmospheric and Astrophysical Neutrinos above 1 TeV Interacting in IceCube**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 91, 022001, 2015
79. **Multimessenger Search for Sources of Gravitational Waves and High-Energy Neutrinos: Results for Initial LIGO-Virgo and IceCube**
IceCube, LIGO and Virgo Collaboration (M. G. Aartsen et al.), Physical Review D, 90, 102002, 2014
80. **Searches for Extended and Point-like Neutrino Sources with Four Years of IceCube Data**
IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 796, 109(14pp), 2014

81. Search for Non-Relativistic Magnetic Monopoles with IceCube

IceCube Collaboration (M. G. Aartsen et al.), The European Physical Journal C, 74, 2938, 2014

82. Observation of High-Energy Astrophysical Neutrinos in Three Years of IceCube Data

IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 113, 101101, 2014

83. Observation of the Cosmic-Ray Shadow of the Moon with IceCube

IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 89, 102004, 2014

84. Improvement in Fast Particle Track Reconstruction with Robust Statistics

IceCube Collaboration (M. G. Aartsen et al.), Nuclear Instruments and Methods, A736, 143-149, 2014

85. Search for Neutrino-Induced Particle Showers with IceCube-40

IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 89, 102001, 2014

86. Energy Reconstruction Methods in the IceCube Neutrino Telescope

IceCube Collaboration (M. G. Aartsen et al.), Journal of Instrumentation, 9, P03009, 2014

87. Search for a Diffuse Flux of Astrophysical Muon Neutrinos with the IceCube 59-string Configuration

IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 89, 062007, 2014

88. Bayesian Approach for Counting Experiment Statistics applied to a Neutrino Point Source Analysis

D. Bose, L. Brayeur, M. Casier, K. D. de Vries, G. Golup and N. van Eijndhoven, Astroparticle Physics, 50-52, 57, 2013

89. IceCube Search for Dark Matter Annihilation in Nearby Galaxies and Galaxy Clusters

IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 88, 122001, 2013

90. Probing the Origin of Cosmic-Rays with Extremely High Energy Neutrinos Using the IceCube Observatory

IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 88, 112008, 2013

91. Search for Time-Independent Neutrino Emission from Astrophysical Sources with 3 years of IceCube Data

IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 779, 132(17pp), 2013

92. Evidence for High-Energy Extraterrestrial Neutrinos at the IceCube Detector

IceCube Collaboration (M. G. Aartsen et al.), Science, 342, 1242856, 2013

93. First Observation of PeV-energy Neutrinos with IceCube

IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 111, 021103, 2013

94. Lateral Distribution of Muons in IceCube Cosmic Ray Events

IceCube Collaboration (R. Abbasi et al.), Physical Review D, 87, 012005, 2013

95. **Measurement of Atmospheric Neutrino Oscillations with IceCube**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 111, 081801, 2013
96. **Measurement of the Atmospheric ν_e Flux in IceCube**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 110, 151105, 2013
97. **Search for Dark Matter Annihilations in the Sun with the 79-string IceCube Detector**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review Letters, 110, 131302, 2013
98. **Search for Galactic PeV Gamma-rays with the IceCube Neutrino Observatory**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 87, 062002, 2013
99. **Observation of Cosmic Ray Anisotropy with the IceTop Air Shower Array**
IceCube Collaboration (M. G. Aartsen et al.), The Astrophysical Journal, 765, 55(9pp), 2013
100. **South Pole Glacial Climate Reconstruction from Multi-Borehole Laser Particulate Stratigraphy**
IceCube Collaboration (M. G. Aartsen et al.), Journal of Glaciology, 59, 1117-1128, 2013
101. **Measurement of the Cosmic Ray Energy Spectrum with IceTop-73**
IceCube Collaboration (M. G. Aartsen et al.), Physical Review D, 88, 042004, 2013
102. **Measurement of South Pole Ice Transparency with the IceCube LED Calibration System**
IceCube Collaboration (M. G. Aartsen et al.), Nuclear Instruments and Methods, A711, 73-89, 2013
103. **All-Particle Cosmic Ray Energy Spectrum Measured with 26 IceTop Stations**
IceCube Collaboration (R. Abbasi et al.), Astroparticle Physics, 44, 40-58, 2013
104. **An Improved Method for Measuring Muon Energy Using the Truncated Mean of dE/dx**
IceCube Collaboration (R. Abbasi et al.), Nuclear Instruments and Methods, A703, 190-198, 2013
105. **Cosmic Ray Composition and Energy Spectrum from 1-30 PeV Using the 40-String Configuration of IceTop and IceCube**
IceCube Collaboration (R. Abbasi et al.), Astroparticle Physics, 42, 15-32, 2013
106. **IceTop: The Surface Component of IceCube**
IceCube Collaboration (R. Abbasi et al.), Nuclear Instruments and Methods, A700, 188-220, 2013
107. **Search for Relativistic Magnetic Monopoles with IceCube**
IceCube Collaboration (R. Abbasi et al.), Physical Review D, 87, 022001, 2013
108. **Searches for High-Energy Neutrino Emission in the Galaxy with the Combined IceCube-AMANDA Detector**
IceCube Collaboration (R. Abbasi et al.), The Astrophysical Journal, 763, 33(18pp), 2012
109. **Time-Dependent Searches for Point Sources of Neutrinos with the 40-String and 22-String Configurations of IceCube**

IceCube Collaboration (R. Abbasi et al.) The Astrophysical Journal, 744 1(15pp), 2012

110. Search for Ultrahigh-energy Tau Neutrinos with IceCube

IceCube Collaboration (R. Abbasi et al.), Physical Review D, 86, 022005, 2012

111. Use of Event-Level Neutrino Telescope Data in Global Fits for Theories of New Physics

P. Scott, C. Savage, J. Edsjö and IceCube Collaboration (R. Abbasi et al.), Journal of Cosmology and Astroparticle Physics, 11, 057, 2012

112. The Design and Performance of IceCube DeepCore

IceCube Collaboration (R. Abbasi et al.), Astroparticle Physics, 35, 615-624, 2012

113. Searches for Periodic Neutrino Emission from Binary Systems with 22 and 40 Strings of IceCube

IceCube Collaboration (R. Abbasi et al.), The Astrophysical Journal, 748, 118(6pp), 2012

114. Searching for Soft Relativistic Jets in Core-collapse Supernovae with the IceCube Optical Follow-up Program

IceCube Collaboration (R. Abbasi et al.), Astronomy & Astrophysics, 539, A60, 2012

115. Multiyear Search for Dark Matter Annihilations in the Sun with the AMANDA-II and IceCube Detectors

IceCube Collaboration (R. Abbasi et al.), Physical Review D, 85, 042002, 2012

116. Observation of Anisotropy in the Galactic Cosmic-Ray Arrival Directions at 400 TeV with IceCube

IceCube Collaboration (R. Abbasi et al.), The Astrophysical Journal, 746, 33(11pp), 2012

117. Background Studies for Acoustic Neutrino Detection at the South Pole

IceCube Collaboration (R. Abbasi et al.), Astroparticle Physics, 35, 312-324, 2012

118. Neutrino Analysis of the 2010 September Crab Nebula Flare and Time-Integrated Constraints on Neutrino Emission from the Crab using iceCube

IceCube Collaboration (R. Abbasi et al.), The Astrophysical Journal, 745, 45(11pp), 2012

119. An absence of neutrinos associated with cosmic-ray acceleration in γ -ray bursts

IceCube Collaboration, Nature, 484, 351-354, 2012

120. IceCube Sensitivity for Low-Energy Neutrinos from Nearby Supernovae

IceCube Collaboration (R. Abbasi et al.), Astronomy & Astrophysics, 535, A109, 2011

121. Constraints on high-energy neutrino emission from SN 2008D

IceCube Collaboration (R. Abbasi et al.), Astronomy & Astrophysics, 527, A28, 2011

122. Measurement of the atmospheric neutrino energy spectrum from 100 GeV to 400 TeV with IceCube

IceCube Collaboration (R. Abbasi et al.), Physical Review D, 83, 012001, 2011

123. **Observation of Anisotropy in the Arrival Directions of Galactic Cosmic Rays at Multiple Angular Scales with IceCube**
IceCube Collaboration (R. Abbasi et al.), The Astrophysical Journal, 740, 16(17pp), 2011
124. **Search for a Diffuse Flux of Astrophysical Muon Neutrinos with the IceCube 40-String Detector.**
IceCube Collaboration (R. Abbasi et al.), Physical Review D, 84, 082001, 2011
125. **Constraints on the Extremely-high Energy Cosmic Neutrino Flux with the IceCube 2008-2009 Data.**
IceCube Collaboration (R. Abbasi et al.), Physical Review D, 83, 092003, 2011, Erratum-ibid., 84, 079902, 2011
126. **Search for Dark Matter from the Galactic Halo with the IceCube Neutrino Telescope**
IceCube Collaboration (R. Abbasi et al.), Physical Review D, 84, 022004, 2011
127. **First search for atmospheric and extraterrestrial neutrino-induced cascades with the IceCube detector**
IceCube Collaboration (R. Abbasi et al.), Physical Review D, 84, 072001, 2011
128. **Limits on Neutrino Emission from Gamma-Ray Bursts with the 40 String IceCube Detector**
IceCube Collaboration (R. Abbasi et al.), Physical Review Letters, 106, 141101, 2011
129. **Time-Integrated Searches for Point-like Sources of Neutrinos with the 40-String IceCube Detector**
The IceCube Collaboration (R. Abbasi et al.), The Astrophysical Journal, 732, 18(16pp), 2011
130. **Insights Into the High-Energy Gamma-ray Emission of Markarian 501 from Extensive Multifrequency Observations in the Fermi Era**
FERMI, VERITAS and MAGIC, The Astrophysical Journal, 727, 129(26pp), 2011
131. **Search for a Lorentz-Violating Sidereal Signal with Atmospheric Neutrinos in IceCube**
IceCube Collaboration (R. Abbasi et al.), Physical Review D, 82, 112003, 2010
132. **Search for Very High-Energy Gamma-Ray Emission from Pulsar-PWN Systems with the MAGIC Telescope**
MAGIC Collaboration (H. Anderhub et al.), The Astrophysical Journal, 710, 828-835, 2010
133. **Gamma-ray excess from a stacked sample of high-frequency peaked blazars observed with the MAGIC telescope**
MAGIC Collaboration (J. Aleksic et al.), The Astrophysical Journal, 729, 115(10pp), 2010
134. **MAGIC Upper Limits for two Milagro-detected, Bright Fermi Sources in the Region of SNR G65.1+0.6**
MAGIC Collaboration (J. Aleksic et al.), The Astrophysical Journal, 725, 1629-1632, 2010
135. **Correlated X-ray and Very High Energy emission in the gamma-ray binary LS I +61 303**
MAGIC Collaboration (H. Anderhub et al.), The Astrophysical Journal, 706, L27-L32, 2009

136. **Radio Imaging of the Very-High-Energy gamma-Ray Emission Region in the Central Engine of a Radio Galaxy**
VERITAS Collaboration, The VLBA 43 GHz M 87 Monitoring Team et al., H.E.S.S. Collaboration, MAGIC Collaboration, Science, 444-448, 2009
137. **Search for VHE gamma-ray emission from the globular cluster M13 with the MAGIC telescope**
MAGIC Collaboration (H. Anderhub et al.), The Astrophysical Journal, 702, 266-269, 2009
138. **Upper Limits on the VHE gamma-ray Emission from the Willman 1 Satellite Galaxy with the MAGIC telescope**
MAGIC Collaboration (Alieu et al.), The Astrophysical Journal, 697, 1299-1304, 2009
139. **Discovery of Very High Energy gamma-rays from the blazar S5 0716+714**
MAGIC Collaboration (H. Anderhub et al.), The Astrophysical Journal, 704, L129, 2009
140. **Search for an extended VHE gamma-ray emission from Mrk 421 and Mrk 501 with the MAGIC Telescope**
MAGIC Collaboration (J. Aleksic et al.), Astronomy and Astrophysics, 524, A77, 8, 2009
141. **Simultaneous multiwavelength observations of MKN421 during outburst**
MAGIC Collaboration (V. A. Acciari et al), The Astrophysical Journal, 703, 169-178, 2009
142. **Simultaneous Multiwavelength Observation of Mkn501 in a Low State in 2006**
MAGIC Collaboration (H. Anderhub et al.), The Astrophysical Journal, 705, 1624-1631, 2009
143. **Very high QE HPDs with a GaAsP photocathode for the MAGIC telescope project**
T.Y. Saito, E. Bernardini, D. Bose, M.V. Fonseca, E. Lorenz, K. Mannheim, R. Mirzoyan, R. Orito, T. Schweizer, M. Shayduk and M. Teshima , Nuclear Instruments and Methods in Physics Research, A610, 258-261, 2009
144. **X-ray variability of AGNs in the soft and the hard X-ray bands**
V. R. Chitnis, J. K. Pendharkar, D. Bose, V. K. Agarwal, A. R. Rao, R. Misra, The Astrophysical Journal, 698, 1207-1220, 2009
145. **Simultaneous multi-wavelength observations of the TeV Blazar Mrk 421 during February - March 2003: X-ray and NIR correlated variability**
Alok C. Gupta, B. S. Acharya, Debanjan Bose, Varsha R. Chitnis, Jun-Hui Fan, Chinese Journal of Astronomy and Astrophysics, Volume 8, Number 4, 395, 2008
146. **Observations of AGNs Using PACT**
D. Bose, V. R. Chitnis, P. R. Vishwanath, P. Majumdar, M. A. Rahman, B. B. Singh, A. C. Gupta, B. S. Acharya, Astrophysics and Space Science, Volume 309, Number 1-4, 111-117, 2007

Conference Proceedings

1. **Likelihood and Deep Learning Analysis of the electron neutrino event sample at Intermediate Water Cherenkov Detector (IWCD) of the Hyper-Kamiokande experiment**
T. Mondal, N. W. Prouse, P. de Perio, M. Hartz, and **D. Bose**,
to appear in PoS(ICHEP 2024), ICHEP 2024, Prague, Czech Republic, 18-24 July, 2024 [arXiv:2411.09562]
2. **Modeling of Gamma Ray Burst (GRB) Afterglow at Very High Energy (VHE) regime**
Tanima Mondal, Suman Reshmi Leksmi, **Debanjan Bose**,
PoS(ICRC2023)600, ICRC 2023, Nagoya, Japan, July 26- August 3, 2023
3. **Modeling Gamma-ray burst Afterglow emission at Very High Energy(VHE) to predict the detectability of CTA**
Tanima Mondal, Suman Pramanick, Reshmi Leksmi, **Debanjan Bose**,
XXV DAE-BRNS HEP Symposium, IISER Mohali, December 12-16, 2022
4. **Probing neutrino mass ordering with supernova neutrinos**
Abinash Medhi, Prantik Sarmah, Moon Moon Devi, Sovan Chakraborty, **Debanjan Bose**,
XXV DAE-BRNS HEP Symposium, IISER Mohali, December 12-16, 2022
5. **Status and results of the prototype LST of CTA**
CTA Collaboration, *Proceedings of 37th ICRC, 872, 2021*
6. **PINGU Camera System to Study Properties of the Antarctic Ice**
D. Bose , M. Jeong, W. Kang, J. Kim, M. Kim, C. Rott,
Proceedings of 34th ICRC, 1145, 2015
7. **Bayesian Approach for a Neutrino Point Source Analysis**
D. Bose, L. Brayeur, M. Casier, K. D. de Vries, G. Golup and N. van Eijndhoven,
Proceedings of 33rd ICRC, 0097, 2013
8. **Multiwavelength observations of 1ES1426+428 May-June 2008**
E. Leonardo et al. (MAGIC Coll.), *Proceedings of 31st ICRC, 1153, 2009*
9. **Development of GaAsP HPDs for the MAGIC telescope project**
Takayuki Saito, **Dr. Debanjan Bose**, Prof. Maria Victoria Fonseca, Dr. Masaaki Hayashida, Dr. Eckart Lorenz, Prof. Karl Mannheim, Dr. Razmik Mirzoyan, Dr. Thomas Schweizer, Dr. Maxim shayduk, Prof. Masahiro Teshima, New Developments In Photodetection 2008, Aix-les-Bains, France, June 15-20, 2008
10. **MAGIC observations of Active Galactic Nuclei**
I.Oya, J.L.Contreras, D. Nieto, **D. Bose**, V. Fonseca
The meeting of the Spanish Astronomy Society(SEA), Santander, Spain, July , 2008
11. **Simultaneous multi-wavelength observations of the TeV Blazar Mrk 421 during February - March 2003: X-ray and NIR correlated variability**

Alok C. Gupta, B. S. Acharya, **Debanjan Bose**, Varsha R. Chitnis, Jun-Hui Fan *The Blazar Times*, published on 11th February 2008

12. **On Pulsed Emission of TeV -rays from Crab**

B. B. Singh, B. S. Acharya, **D. Bose**, V. R. Chitnis, P. R. Vishwanath, **OG2.2**, 29th ICRC, (2005)

13. **Simultaneous Multi-wavelength Variability of the TeV Blazar Mrk 421**

A. C. Gupta, B. S. Acharya, **D. Bose**, V. R. Chitnis, J. H. Fan, **OG2.3**, 29th ICRC, (2005)

14. **Observations of AGNs with PACT**

D. Bose, B. S. Acharya, V. R. Chitnis, B. B. Singh, P. R. Vishwanath, **OG2.3**, 29th ICRC, (2005)

15. **Observations of Mkn 421 with PACT**

D. Bose, B. S. Acharya, P. N. Bhat, V. R. Chitnis, K. S. Gothe, B. K. Nagesh, K. K. Rao , M. A. Rahman, B. B. Singh, S. S. Upadhy, National Space Science Symposium, (2004)

16. **Pachmarhi Array of Cerenkov Telescopes**

P. Majumdar, B.S. Acharya, P.N. Bhat, **D. Bose**, V.R. Chitnis, A.I.D'Souza, K.S.Gothe, B.K.Nagesh, M.S.Pose, P.N.Purohit, M.A. Rahman, K.K.Rao, S.K.Rao, S.K.Sharma, B.B. Singh, A.J.Stanislaus, P.V.Sudershanan, S.S. Upadhy, B.L.Venkateshmurthy and P.R. Vishwanath, *The Universe Viewed in Gamma-Rays* (Eds. R.Enomoto, M.Mori and S.Yanagita), Universal Academy Press, Tokyo, **Page 193**, (2003)

17. **Preliminary Results from the Crab Nebula with the PACT Array**

P. Majumdar, B.S. Acharya, P.N. Bhat, **D. Bose**, V.R. Chitnis, M.A. Rahman, B.B. Singh and P.R. Vishwanath, *The Universe Viewed in Gamma-Rays* (Eds. R.Enomoto, M.Mori and S.Yanagita), Universal Academy Press, Tokyo, **Page 193**, (2003)