

Publications of Faculty Associated with CESSI

CESSI Publications (1st April 2021 to 31st March 2022)

1. "Erratum:" A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo", 2021, Abbott, B. P. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Astrophysical Journal, Volume 923, Pages 279
2. "Erratum: "Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO", 2021, Abbott, B. P. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Astrophysical Journal, Volume 918, Issue 2, Pages 1-6
3. "Population properties of compact objects from the second LIGO–Virgo gravitational-wave transient catalog", 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical journal letters, Volume 913, Issue 1, Pages L7
4. "Diving below the spin-down limit: Constraints on gravitational waves from the energetic young pulsar PSR J0537-6910", 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical Journal Letters, Volume 913 Issue 2 Pages L27
5. "GWTC-2: compact binary coalescences observed by LIGO and Virgo during the first half of the third observing run", 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical Review X, Volume 11 Issue 2 Pages 021053
6. "Tests of general relativity with binary black holes from the second LIGO-Virgo gravitational-wave transient catalog", 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration)(including **Nayak, Rajesh K.**), Physical review D, Volume 103 Issue 12 Pages 122002
7. "Constraints on cosmic strings using data from the third Advanced LIGO–Virgo observing run", 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical review letters, Volume 126 Issue 24 Pages 241102

8. “Observation of gravitational waves from two neutron star–black hole coalescences”, 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical journal letters, Volume 915, Issue 1, Pages L5
9. “Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGO–Virgo Run O3a”, 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical Journal, Volume 915 Issue 2 Pages 86
10. “Upper limits on the isotropic gravitational-wave background from Advanced LIGO and Advanced Virgo’s third observing run”, 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical Review D, Volume 104 Issue 2 Pages 022004
11. “Search for anisotropic gravitational-wave backgrounds using data from Advanced LIGO and Advanced Virgo’s first three observing runs”, 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical Review D, Volume 104 Issue 2 Pages 022005
12. Erratum: “Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO” (2019, ApJ, 875, 122), 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical Journal, Volume 918 Issue 2 Pages 91
13. Erratum: “Searches for Continuous Gravitational Waves from Nine Young Supernova Remnants” (2015, ApJ, 813, 39), 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical Journal, Volume 918 Issue 2 Pages 90
14. “All-sky search for continuous gravitational waves from isolated neutron stars in the early O3 LIGO data”, 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical Review D, Volume 104, Issue 8, Pages 082004
15. “Searches for continuous gravitational waves from young supernova remnants in the early third observing run of Advanced LIGO and Virgo”, 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical Journal, Volume 921, Issue 1, Pages 80
16. “Constraints from LIGO O3 Data on Gravitational-wave Emission Due to R-modes in the Glitching Pulsar PSR J0537–6910”, Abbott, R. et al. (LIGO Scientific

Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical Journal, Volume 922, Issue 1, Pages 71

17. “Search for lensing signatures in the gravitational-wave observations from the first half of ligo–virgo’s third observing run”, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), The Astrophysical Journal, Volume 923, Issue 1, Pages 14
18. Erratum: “A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo” (Astrophysical Journal (2021) 909 (218), 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Astrophysical Journal, Volume 923 Issue 2 Pages 279
19. “All-sky search for short gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run”, 2021, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical Review D, Volume 104, Issue 12, Pages 122004
20. “Search for continuous gravitational waves from 20 accreting millisecond X-ray pulsars in O3 LIGO data”, 2022, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical Review D, Volume 105, Issue 2, Pages 022002
21. “Search for intermediate-mass black hole binaries in the third observing run of Advanced LIGO and Advanced Virgo”, 2022, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Astronomy & Astrophysics, Volume 659, Article Number A84
22. “Constraints on dark photon dark matter using data from LIGO’s and Virgo’s third observing run”, 2022, Abbott, R. et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, Rajesh K.**), Physical review D, Volume 105, Issue 6, Pages 063030
23. “Polarization signatures of Mars dust and clouds: Prospects for future spacecraft observations”, 2021, Bhavesh Jaiswal, G. Mahapatra, Anuj Nandi, M. Sudhakar, **K. Sankarasubramanian**, V. Sheel, Planetary and Space Science, Volume 201, 105193
24. “Experimental observation of the orbital Hall effect of light through pure orbit–orbit interaction for randomly and radially polarized vortex beams”, 2021, **Athira B S**, Sounak Mukherjee, Anuraj Laha, Koushik Bar, **Dibyendu Nandy**, and **Nirmalya Ghosh**, JOSA B, Volume 38, pp 2180-2186

25. “Stellar mid-life crisis: subcritical magnetic dynamos of solar-like stars and the breakdown of gyrochronology“, 2021, Bindesh Tripathi, **Dibyendu Nandy**, Soumitro Banerjee, Monthly Notices of the Royal Astronomical Society: Letters, Volume 506, Pages L50-L54
26. “Solar Cycle Evolution of Filaments over a Century: Investigations with the Meudon and McIntosh Hand-drawn Archives”, 2021, Rakesh Mazumder, Subhamoy Chatterjee, **Dibyendu Nandy**, **Dipankar Banerjee**, The Astrophysical Journal, Volume 919, pp 125
27. “Solar evolution and extrema: current state of understanding of long-term solar variability and its planetary impacts”, 2021, **Dibyendu Nandy**, Petrus CH Martens, Vladimir Obridko, **Soumyaranjan Dash**, Katya Georgieva, Progress in Earth and Planetary Science, Volume 8, pp 1-21
28. “Predictability of variable solar–terrestrial coupling”, 2021, Ioannis A Daglis, Loren C Chang, Sergio Dasso, Nat Gopalswamy, Olga V Khabarova, Emilia Kilpua, Ramon Lopez, Daniel Marsh, Katja Matthes, **Dibyendu Nandy**, Annika Seppälä, Kazuo Shiokawa, Rémi Thiéblemont, Qiugang Zong, Annales Geophysicae, Volume 39, pp 1013-1035
29. “Generalized framework of weak-value amplification in path interference of polarized light for the enhancement of all possible polarization anisotropy effects”, 2021, Niladri Modak, BS Athira, Ankit Kumar Singh, **Nirmalya Ghosh**, Physical Review A, Volume 103, pp 053518
30. “Investigating width distribution of slow and fast CMEs in solar cycles 23 and 24”, 2021, Pant, V.; Majumdar, S.; Patel, R.; Chauhan, A.; **Banerjee, Dipankar**; Gopalswamy, N., Frontiers in Astronomy and Space Sciences, Volume 8, id.73
31. “Characterizing Spectral Channels of Visible Emission Line Coronagraph of Aditya-L1”, 2021, Patel, Ritesh; Megha, A.; Shrivastav, Arpit Kumar; Pant, Vaibhav; Vishnu, M.; **Sankarasubramanian, K.**; **Banerjee, Dipankar**, Frontiers in Astronomy and Space Sciences, Volume 8, id.88
32. “An Insight into the Coupling of CME Kinematics in Inner and Outer Corona and the Imprint of Source Regions”, 2021, Majumdar, Satabdwa; Patel, Ritesh; Pant, Vaibhav; **Banerjee, Dipankar**, The Astrophysical Journal, Volume 919, Issue 2, id.115
33. “Solar Cycle Evolution of Filaments over a Century: Investigations with the Meudon and McIntosh Hand-drawn Archives”, 2021, Mazumder, Rakesh; Chatterjee,

Subhamoy; **Nandy, Dibyendu; Banerjee, Dipankar**, The Astrophysical Journal, Volume 919, Issue 2, id.125

34. “Magnetohydrodynamic Waves in Open Coronal Structures”, 2021, **Dipankar Banerjee** et al., Space Science Reviews, Volume 217, Issue 7, id.76
35. “Uncovering the process that transports magnetic helicity to coronal mass ejection flux ropes”, **Sanchita Pal**, Advances in Space Research, Nov 2021, ISSN 0273-117

CESSI Publications (1st April 2020 to 31st March 2021)

1. “Modelling the imposed magnetospheres of Mars-like exoplanets: star-planet interactions and atmospheric losses”, 2021, **Basak, Arnab., Nandy, Dibyendu.**, Monthly Notices of the Royal Astronomical Society, Volume 502, Issue 3
2. “Progress in Solar Cycle Predictions: Sunspot Cycles 24–25 in Perspective”, 2021, **Nandy, Dibyendu.**, Solar Physics, Volume 296, Article number 54
3. “Migration of Solar Polar Crown Filaments in the Past 100 Years”, 2021, Xu, Yan., **Banerjee, Dipankar.**, Chatterjee, Subhamoy., Pötzi, Werner., Wang, Ziran., Ruan, Xindi., Jing, Ju., Wang, Haimin., The Astrophysical Journal, Volume 909, Page 86
4. “Automated Detection of Accelerating Solar Eruptions Using Parabolic Hough Transform”, 2021, Patel, Ritesh., Pant, Vaibhav., Iyer, Priyanka., **Banerjee, Dipankar.**, Mierla, Marilena., West, Matthew J., Solar Physics, Volume 296, Article number 31
5. “Measurements of Solar Differential Rotation Using the Century-Long Kodaikanal Sunspot Data”, 2021, Jha, Bibhuti Kumar., Priyadarshi, Aditya., Mandal, Sudip., Chatterjee, Subhamoy., **Banerjee, Dipankar.**, Solar Physics, Volume 296, Article number 25
6. “Open data from the first and second observing runs of Advanced LIGO and Advanced Virgo”, 2021, Abbott, R. et al. (including **Nayak, Rajesh K.**), SoftwareX, Volume 13, Pages 100658
7. “Implementation of the dual foliation generalized harmonic gauge formulation with application to spherical black hole excision”, 2021, **Bhattacharyya, Maitraya K.**, Hilditch, David., **Nayak, Rajesh K.**, Renkhoff, Sarah., Rüter, Hannes R., Brüggemann, Bernd., Physical Review D, Volume 103, Issue 6, Article Id. 064072

8. “All-sky search in early O3 LIGO data for continuous gravitational-wave signals from unknown neutron stars in binary systems”, 2021, Abbott, R. et al. (including **Nayak, Rajesh K.**), Physical Review D, Volume 103, Issue 6, Article Id. 064017
9. “A gravitational-wave measurement of the Hubble constant following the second observing run of Advanced LIGO and Virgo”, 2021, Abbott, B. P. et al. (including **Nayak, Rajesh K.**), The Astrophysical Journal, Volume 909, Issue 2, Pages 218
10. “In-orbit Performance of UVIT over the past 5 years”, 2021, Ghosh, S. K., Joseph, P., Kumar, A., Postma, J., Stalin, C. S., Suramaniam, A., Tandon, S. N., Barve, I. V., Devraj, A., George, K., Girish, V., Hutchings, J. B., Kamath, P. U., Kathiravan, S., Lancelot, J. P., Leahy, D., Mahesh, P. K., Mohan, R., Nagabhushana, S., Pati, A. K., Rao, N. K., **Sankarasubramanian, K.**, Sreekumar, P., and Sriram, S., Journal of Astrophysics and Astronomy, Volume 42, Article number 20
11. “Characterizing Spectral Channels of Visible Emission Line Coronagraph of Aditya-L1”, 2021, Patel, R., Megha, A., Shrivastav, A., Pant, V., Vishnu, M., **Sankarasubramanian, K.**, **Banerjee, Dipankar.**, Frontiers in Astronomy and Space Sciences, Volume 8, Issue 88
12. “Chandrayaan-2 Large Area Soft X-ray Spectrometer (CLASS): Calibration, In-flight Performance and First results”, 2021, Netra S. Pillai, Narendranath, S., Vadodariya, K., Tadepalli, S. P., Radhakrishna, V., Tyagi, A., Yadav, R., Singh, B., Sharan, V., Athiray, P. S., Sreekumar, P., **Sankarasubramanian, K.**, Bhatt, M., Basu, S., Amit, Mithun, N. P. S., and Vadawale, S., ICARUS, Volume 363, Article number 14436
13. “Polarization Signatures of Mars Dust and Clouds: Prospects for Future spacecraft observations”, 2021, Jaiswal, B., Mahapatra, G., Nandi, A., Sudhakar, M., **Sankarasubramanian, K.**, Sheel, V., Planetary & Space Science, Volume 201, Article number 105193
14. “Does the mean-field α effect have any impact on the memory of the solar cycle?”, 2020, **Hazra, Soumitra.**, Brun, Allan Sacha., **Nandy, Dibyendu.**, Astronomy and Astrophysics, Volume 642, Article number A51
15. “Flux erosion of magnetic clouds by reconnection with the Sun's open flux”, 2020, **Pal, Sanchita.**, **Dash, Soumyaranjan.**, **Nandy, Dibyendu.**, Geophysical Research Letters, Volume 47, Issue 8

16. “Characteristics of interaction between gravitons and photons”, 2021, **B S, Athira.**, Mandal, Susobhan., Banerjee, Subhashish., European Physical Journal Plus, Pages 136-403
17. “Natural weak value amplification in Fano resonance and giant Faraday rotation in magneto-plasmonic crystal”, 2020, Guchhait, Shyamal., **B S, Athira.**, Modak, Niladri., Nayak, Jeeban Kumar., Panda, Anwasha., Pal Mandira., **Ghosh, Nirmalya.**, Scientific Reports, Volume 10, Article number 11464
18. “A statistical study of plasmoids associated with a post-CME current sheet”, 2020, Patel, Ritesh., Pant, Vaibhav., Chandrashekhar, Kalugodu., **Banerjee, Dipankar.**, Astronomy and Astrophysics, Volume 644, Article number A158
19. “Sunspot area catalogue revisited: Daily cross-calibrated areas since 1874”, 2020, Mandal, Sudip., Krivova, Natalie A., Solanki, Sami K., Sinha, Nimesh., **Banerjee, Dipankar.**, Astronomy and Astrophysics, Volume 640, Article number A78
20. “Connecting 3D Evolution of Coronal Mass Ejections to Their Source Regions”, 2020, Majumdar, Satabdwa., Pant, Vaibhav., Patel, Ritesh., **Banerjee, Dipankar.**, The Astrophysical Journal, Volume 899, Article number 1
21. “A Comparison Study of Extrapolation Models and Empirical Relations in Forecasting Solar Wind”, 2020, Kumar, Sandeep., Paul, Arghyadeep., **Vaidya, Bhargav.** Frontiers in Astronomy and Space Sciences, Volume 7
22. “Determination of maximum electric field amplitude sustained by electron acoustic solitary waves in an unmagnetized plasma with kappa-distributed electrons”, 2021, **Mukherjee, Arghya.**, AIP Advances, Volume 11, Issue 3
23. “Efficient beam multiplexing and improving efficiency of a spatial light modulator using an iterative algorithm”, 2020, **Chandra, Amar Deo., Banerjee, Ayan.**, Society of PhotoOptical Instrumentation Engineers (SPIE) Proceedings, Laser Beam Shaping XX, Volume 11486
24. “Rapid phase calibration of a spatial light modulator using novel phase masks and optimization of its efficiency using an iterative algorithm”, 2020, **Chandra, Amar Deo., Banerjee, Ayan.**, Journal of Modern Optics, Volume 67, Issue 7
25. “Solar Cycle Variation of Large Scale Plasma Flows”, 2020, **Lekshmi, B.**, In: Monteiro M.J.P.F.G., García R.A., Christensen-Dalsgaard J., McIntosh S.W. (eds)

Dynamics of the Sun and Stars. Astrophysics and Space Science Proceedings, Volume 57. Springer, Cham

26. “Analytical and numerical treatment of perturbed black holes in horizon-penetrating coordinates”, 2020, **Bhattacharyya, Maitraya K.**, Hilditch, David., **Nayak, Rajesh K.**, Rüter, Hannes R., Brüggmann, Bernd., Physical Review D, Volume 102, Issue 2
27. “GW190412: Observation of a binary-black-hole coalescence with asymmetric masses”, 2020, Abbott, R. et al. (including **Nayak, Rajesh K.**), Physical Review D, Volume 102, Issue 4
28. “Properties and astrophysical implications of the 150 M_⊙ binary black hole merger GW190521”, 2020, Abbott, R. et al.(including **Nayak, Rajesh K.**), The Astrophysical Journal Letters, Volume 900, Issue 1
29. “GW190521: A binary black hole merger with a total mass of 150 M_⊙”, 2020, Abbott, R. et al. (including **Nayak, Rajesh K.**), Physical Review Letters , Volume 125, Issue 10
30. “Gravitational-wave constraints on the equatorial ellipticity of millisecond pulsars”, 2020, Abbott, R. et al.(including **Nayak, Rajesh K.**), The Astrophysical Journal Letters, Volume 902, Issue 1
31. “VizieR Online Data Catalog: 2015-2017 LIGO obs. analysis for 221 pulsars”, 2020, Abbott, B.P. et al. (including **Nayak, Rajesh K.**), VizieR Online Data Catalog, Id. J/ApJ/879/10
32. “Coronal Elemental Abundance: New Results from Soft X-Ray Spectroscopy of the Sun”, 2020, Narendranath, Shyama, Sreekumar, P., Pillai, Netra S., Panini, Singam, **Sankarasubramanian, K.**, Huovelin, Juhani, Solar Physics, Volume 295, Article number 175
33. “Polarization model for the multi-application solar telescope at the Udaipur Solar Observatory”, 2020, Anche, Ramya M., Ranganathan, M., Mathew, Shibu K., **Sankarasubramanian, K.**, Anupama, G. C., Ramya, Bireddy, Prasad, Avijeet, Yadav, Rahul, Bayanna, Raja, Society of PhotoOptical Instrumentation Engineers (SPIE) Conference Series, Volume 11451
34. “Fast Iterative Techniques for Polarized Radiative Transfer in Spherically Symmetric Moving Media”, 2020, Megha, A., Sampoorna, M., Nagendra, K. N., Anusha, L. S., **Sankarasubramanian, K.**, The Astrophysical Journal, Volume 903, Issue 6

35. “Additional Calibration of the Ultraviolet Imaging Telescope on Board AstroSat”, 2020, Tandon, S. N., Postma, J., Joseph, P., Devaraj, A., Subramaniam, A., Barve, I. V., George, K., Ghosh, S. K., Girish, V., Hutchings, J. B., Kamath, P. U., Kathiravan, S., Kumar, A., Lancelot, J. P., Leahy, D., Mahesh, P. K., Mohan, R., Nagabhushana, S., Pati, A. K., Rao, N. Kameswara, **Sankarasubramanian, K.**, Sriram, S., Stalin, C. S., The Astronomical Journal, Volume 159, Article number 4
36. “Distinguishing between flaring and non-flaring active regions”, **Soumitra Hazra**, Gopal Sardar and Partha Chowdhury, Astronomy and Astrophysics, July 2020, Vol 639, Article Num: A44
37. “Solar Cycle Variation of Large Scale Plasma Flows”, **Lekshmi B**, Dynamics of the Sun and Stars (Conference Paper), Dec 2020, pp 139–140

CESSI Publications (1st April 2019 to 31st March 2020)

1. “Association of Calcium Network Bright Points with Underneath Photospheric Magnetic Patches”, 2019, Narang, Nancy., **Banerjee, Dipankar.**, Chandrasekhar, Kalugodu., Pant, Vaibhav., Solar Physics, Volume 294, Issue 4, article id. 40, pp.
2. “Can the long-term hemispheric asymmetry of solar activity result from fluctuations in dynamo parameters?”, 2019, Nepomnyashchikh, Alexander., Mandal, Sudip., **Banerjee, Dipankar.**, Kitchatinov, Leonid., Astronomy & Astrophysics, Volume 625, id.A37, pp.
3. “Study of Sunspot Penumbra to Umbra Area Ratio Using Kodaikanal White-light Digitised Data”, 2019, Jha, Bibhuti Kumar., Mandal, Sudip., **Banerjee, Dipankar.**, Solar Physics, Volume 294, Issue 6, article id. 72, pp.
4. “Signature of Extended Solar Cycles as Detected from Ca II K Synoptic Maps of Kodaikanal and Mount Wilson Observatory”, 2019, Chatterjee, Subhamoy., **Banerjee, Dipankar.**, McIntosh, Scott W., Leamon, Robert J., Dikpati, Mausumi., Srivastava, Abhishek K., Bertello, Luca., The Astrophysical Journal Letters, Volume 874, Issue 1, article id. L4, pp.
5. “Magnetic Field Dependence of Bipolar Magnetic Region Tilts on the Sun: Indication of Tilt Quenching”, 2020, Jha, Bibhuti Kumar., Karak, Bidya Binay., Mandal, Sudip., **Banerjee, Dipankar.**, The Astrophysical Journal Letters, Volume 899, id.L19.
6. “Simultaneous longitudinal and transverse oscillations in filament threads after a failed eruption”, 2020, Mazumder, Rakesh., Pant, Vaibhav., Luna, Manuel., **Banerjee, Dipankar.**, Astronomy & Astrophysics, Volume 633, id.A12, pp.

7. “Hemispheric asymmetry in meridional flow and the sunspot cycle”, 2019, **Lekshmi, B., Nandy, Dibyendu.**, Antia, H. M., Monthly Notices of the Royal Astronomical Society, Volume 489, Issue 1.
8. “Solar Filament Eruptions as Precursors to Flare—CME Events: Establishing the Temporal Connection”, 2019, **Sinha, Suvadip., Srivastava, Nandita., Nandy, Dibyendu.**, The Astrophysical Journal, Volume 880, Issue 2, article id. 84, pp.
9. “Prediction of the Sun’s Corona for the Total Solar Eclipse on 2019 July 2”, 2019, **Dash, Soumyaranjan., Bhowmik, Prantika., Nandy, Dibyendu.**, Research Notes of the American Astronomical Society, Volume 3, Issue 6, article id. 86.
10. “Modeling Star—Planet Interactions in Far-out Planetary and Exoplanetary Systems”, 2019, **Bharati Das, Srijan., Basak, Arnab., Nandy, Dibyendu., Vaidya, Bhargav.**, The Astrophysical Journal, Volume 877, Issue 2, article id. 80.
11. “The origin of parity changes in the solar cycle”, 2019, Hazra, Soumitra., **Nandy, Dibyendu.**, Monthly Notices of the Royal Astronomical Society, Volume 489, Issue 3, p.4329-4337.
12. “A 3D kinematic Babcock Leighton solar dynamo model sustained by dynamic magnetic buoyancy and flux transport processes”, 2019, Kumar, Rohit., Jouve, Laurene., **Nandy, Dibyendu.**, Astronomy & Astrophysics, Volume 623, id.A54, pp.
13. “Sunspot Cycle 25 is Brewing: Early Signs Herald its Onset”, 2020, **Nandy, Dibyendu., Bhatnagar, Aditi., Pal, Sanchitas** Volume 4, Issue 2, id.30.
14. “Polar flux imbalance at the sunspot cycle minimum governs hemispheric asymmetry in the following cycle”, **Bhowmik, Prantika.**, Astronomy & Astrophysics, Volume 632, id.A117, pp.
15. “The fate of self-aligned rolls in gravity modulated magnetoconvection”, 2019, **Basak, Arnab**, Physics Letters A, Volume 383, Issue 13.
16. “Properties of filaments in solar cycle 20-23 from McIntosh Archive”, 2019, **Mazumder, Rakesh**, Research in Astronomy and Astrophysics, Volume 19, Issue 6, article id. 080.
17. “Experimental probe of weak-value amplification and geometric phase through the complex zeros of the response function”, 2019, Pal, Mandira., Saha, Sudipta., **B S, Athira., Dutta Gupta, Subhasish., Ghosh, Nirmalya.**, Physical Review A, Volume 99, Issue 3, id.032123.
18. “Polarized Line Formation in Spherically Symmetric Atmospheres with Velocity Fields”, 2019, Megha, A., Sampoorana, M., Nagendra, K. N., Anusha, L. S., **Sankarasubramanian, K.**, The Astrophysical Journal, Volume 879, Issue 1, article id. 48, pp.

19. "On Doppler Shift and Its Center-to-limb Variation in Active Regions in the Transition Region", 2019, **Ghosh, Avyarthana.**, Klimchuk, James A., **Tripathi, Durgesh.**, The Astrophysical Journal, Volume 886, Issue 1, article id. 46, pp.
20. "Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), The Astrophysical Journal, Volume 875, Issue 2.
21. "Low-latency gravitational-wave alerts for multimessenger astronomy during the second Advanced LIGO and Virgo observing run", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), The Astrophysical Journal, Volume 875, Issue 2.
22. "Search for gravitational waves from a long-lived remnant of the binary neutron star merger GW170817", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), The Astrophysical Journal, Volume 875, Issue 2.
23. "First measurement of the Hubble Constant from a dark standard siren using the Dark Energy Survey galaxies and the LIGO/Virgo binary–black-hole merger GW170814", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), The Astrophysical Journal Letters, Volume 876, Issue 1.
24. "All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), Physical Review D, Volume 99, Issue 10.
25. "Searches for gravitational waves from known pulsars at two harmonics in 2015–2017 LIGO data", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), The Astrophysical Journal, Volume 879, Issue 1.
26. "Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), Physical Review D, Volume 99, Issue 12.
27. "Tests of general relativity with GW170817", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), Physical Review Letters, Volume 123, Issue 1.
28. "All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run", 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), Physical Review D, Volume 100, Issue 2.

29. “Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015-2017 LIGO Data”, 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K**), The Astrophysical Journal, Volume 879, Issue 1.
30. “GWTC-1: a gravitational-wave transient catalog of compact binary mergers observed by LIGO and Virgo during the first and second observing runs”, 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K**), Physical Review X, Volume 9, Issue 3.
31. Erratum:“Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015–2017 LIGO Data”, 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K**), The Astrophysical Journal, Volume 882, Issue 1, article id. 73,pp.
32. “Directional limits on persistent gravitational waves using data from Advanced LIGO’s first two observing runs”, 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K**), Physical Review D, Volume 100, Issue 6.
33. “Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during Their First and Second Observing Runs”, 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K**), The Astrophysical Journal, Volume 883, Issue 2, article id. 149, pp.
34. “Search for intermediate mass black hole binaries in the first and second observing runs of the Advanced LIGO and Virgo network”, 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K**), Physical Review D, Volume 100, Issue 6.
35. “Search for Substellar Mass Ultracompact Binaries in Advanced LIGO’s Second Observing Run, 2019”, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K**), Physical Review Letters, Volume 123, Issue 16.
36. “All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data”, 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration)(including **Nayak, R. K**), Physical Review D, Volume 100, Issue 2, id.024004
37. “Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo”, , 2019, B. P. Abbott et. al. (LIGO Scientific Collaboration and Virgo Collaboration)(including **Nayak, R. K**), The Astrophysical Journal Letters, Volume 882, Series 2, Pages L24.
38. “Search for Gravitational-wave Signals Associated with Gamma-Ray Bursts during the Second Observing Run of Advanced LIGO and Advanced Virgo”, 2019, B. P. Abbott et al.

(LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), *The Astrophysical Journal*, Volume 886, article id. 75, pp.

39. “Tests of general relativity with the binary black hole signals from the LIGO-Virgo catalog GWTC-1”, 2019, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), *Physical Review D*, Volume 100, Issue 10, id.104036.
40. “Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model”, 2019, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), *Physical Review D*, Volume 100, Issue 12, id.122002.
41. “Model comparison from LIGO–Virgo data on GW170817's binary components and consequences for the merger remnant”, 2020, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), *Classical and Quantum Gravity*, Volume 37, Issue 4, id.045006
42. “GW190425: Observation of a Compact Binary Coalescence with Total Mass $\sim 3.4 M_{\odot}$ ”, 2020, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), *The Astrophysical Journal Letters*, Volume 892, Issue 1, id.L3.
43. “A guide to LIGO-Virgo detector noise and extraction of transient gravitational-wave signals”, 2020, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **Nayak, R. K.**), *Classical and Quantum Gravity*, Volume 37, Issue 5, id.055002.
44. “A Joint Fermi-GBM and LIGO/Virgo Analysis of Compact Binary Mergers from the First and Second Gravitational-wave Observing Runs”, 2020, Hamburg, R et al.(including **Nayak, R. K.**), *The Astrophysical Journal*, Volume 893, Issue 2, id.100.

CESSI Publications (1st April 2018 to 31st March 2019)

1. “Swarm Intelligence to detect Gravitational Waves”, 2018, V Srivastava., A Samajhdar., **K Rajesh Nayak.** & S Bose, *Bulletin of the American Physical Society*.
2. “Off-equatorial Stable Circular Orbits for Spinning Particles”, 2018, Sajal Mukherjee & **K Rajesh Nayak**, 2018, *Physical Review D*, 98, 084023, Volume 98, Issue 8.
3. “Carter's Constant and Superintegrability”, Payel Mukhopadhyay. & **K Rajesh Nayak.**, 2018, *International Journal of Modern Physics D*, Volume 27, Issue 07, Pages 1850066
4. “Constraints on Cosmic Strings Using Data from the First Advanced LIGO Observing Run”, 2018, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **K Rajesh Nayak**), *Physical Review D*, Volume 97, Issue 10.

5. “Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background”, 2018, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **K Rajesh Nayak**), *Physical Review Letters*, Volume 120, Issue 20.
6. “Collisional Penrose Process and Jets in Kerr Naked Singularity”, 2018, Sajal Mukherjee & **Rajesh Kumble Nayak**, *Astrophysics and Space Science*, Volume 363.
7. “Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO’s First Observing Run”, 2018, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **K Rajesh Nayak**), *Physical Review Letters*, Volume 121, Issue 23.
8. “Properties of the Binary Neutron Star Merger GW170817”, 2019, B. P. Abbott et al. (LIGO Scientific Collaboration and Virgo Collaboration) (including **K Rajesh Nayak**), *Physical Review X*, Volume 9, Issue 1.
9. “Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube”, 2019, A. Albert et. al. (including **K Rajesh Nayak**), *The Astrophysical Journal*, Volume 870, Number 2
10. “Constraining the p -Mode-g -Mode Tidal Instability with GW170817”, 2019, B. P. Abbott et al. (including **K Rajesh Nayak**), *Physical Review Letters*, Volume 122, Issue 6.
11. “A Fermi Gamma-Ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-wave Candidates in Advanced LIGO’s First Observing Run”, Burns et al. (including **K Rakjesh Nayak**), *The Astrophysical Journal*, Volume 871, Issue 1.
12. “Energetics of small electron acceleration episodes in the solar corona from radio noise storm observations”, 2018, James, T. and **Subramanian, P.**, *Monthly Notices of the Royal Astronomical Society*, Volume 479, Issue 2, Pages 1603–1611
13. “The Extended Solar Cycle: Muddying the Waters of Solar/Stellar Dynamo Modeling Or Providing Crucial Observational Constraints?”, 2018, Srivastava Abhishek K., McIntosh Scott W., Arge N., **Banerjee Dipankar**, Dikpati Mausumi, Dwivedi Bhola N., Guhathakurta Madhulika, Karak B.B., Leamon Robert J., Matthew Shibu K., Munoz-Jaramillo Andres, **Nandy D.**, Norton Aimee, Upton L., Chatterjee S., **Mazumder Rakesh**, Rao Yamini K., Yadav Rahul., *Frontiers in Astronomy and Space Sciences*, Volume 5, Article No: 38.
14. “The Association of Filaments, Polarity Inversion Lines, and Coronal Hole Properties with the Sunspot Cycle: An Analysis of the McIntosh Database”, 2018, **Mazumder, R.** ,

Bhowmik, P. and Nandy, D., *The Astrophysical Journal*, Volume 868, Issue 1, Article No: 52.

15. "Dependence of Coronal Mass Ejection Properties on Their Solar Source Active Region Characteristics and Associated Flare Reconnection Flux", 2018, **Pal, S. , Nandy, D.**, Srivastava, N. , Gopalswamy, N. and Panda, S., *The Astrophysical Journal*, Volume 865, Issue 1, Article No: 4.
16. "Asymmetry in Solar Torsional Oscillation and the Sunspot Cycle", 2018, **Lekshmi, B. , Nandy, D.** and Antia, H.M., *The Astrophysical Journal*, Volume 861, Issue 2, Article No: 121.
17. "Prediction of the strength and timing of sunspot cycle 25 reveal decadal-scale space environmental conditions", 2018, **Bhowmik, P. and Nandy, D.**, *Nature Communications*, Volume 9, Article No :5209.
18. "A Magnetofrictional model for the solar corona", 2018, **Dash, S., and Nandy,D.;** *Proceedings of the International Astronomical Union*, 13(S340), 87-88.
19. "Study of starspots in fully convective stars using three dimensional MHD simulations", 2018, Basak, A., & Nandy, D., *Proceedings of the International Astronomical Union*, 13(S340), 303-304.
20. "Asymmetry in Solar Torsional Oscillation", 2018, **Lekshmi, B., Nandy, D., & Antia, H.M.**, *Proceedings of the International Astronomical Union*, 13(S340), 11-12.
21. "The activity evolution of Solar-like stars with age and its planetary impact", 2018, **Das, S., Basak, A., & Nandy, D.**, *Proceedings of the International Astronomical Union*, 13(S340), 240-241.
22. "A 3D kinematic Babcock Leighton solar dynamo model sustained by dynamic magnetic buoyancy and flux transport processes", 2019, Kumar, R., Jouve, L., & **Nandy D**, *Astronomy & Astrophysics*, Volume 623.
23. "Properties of Coronal Holes in Solar Cycle 21-23 using McIntosh archive", 2018, **Mazumder, Rakesh., Bhowmik, Prantika. & Nandy, Dibyendu.**, *Proceedings of the International Astronomical Union*, 13(S340), 187-188.
24. "The Association of Filaments, Polarity Inversion Lines, and Coronal Hole Properties with the Sunspot Cycle: An Analysis of the McIntosh Database", 2018, **Mazumder, Rakesh., Bhowmik, Prantika. & Nandy, Dibyendu.**, *The Astrophysical Journal*, Volume 868, Issue 1.
25. "Study of a periodically forced magnetohydrodynamic system using Floquet analysis and nonlinear Galerkin modelling", 2018, **Basak, A.**, *Nonlinear Dynamics*, Volume 94, Issue 4.

26. “A comprehensive design of rainfall simulator for the assessment of soil erosion in the laboratory”, 2018, Sushil N. Mhaske, Khanindra Pathak, **Arnab Basak.**, *CATENA*, Volume 172.
27. “The fate of self-aligned rolls in gravity modulated magnetoconvection”, 2019, **Arnab Basak**, *Physical Letters A*, Volume 383, Issue 13.
28. “Double Peaks of the Solar Cycle: An Explanation from a Dynamo Model”, 2018, Karak, Bidya Binay., Mandal, Sudip. & **Banerjee, Dipankar.**, *The Astrophysical Journal*, Volume 866, Issue 1.
29. “Onboard Automated CME Detection Algorithm for the Visible Emission Line Coronagraph on ADITYA-L1”, 2018, Patel, Ritesh., Amareswari, K., Pant, Vaibhav; **Banerjee, Dipankar.**, Sankarasubramanian, K. & Kumar, Amit, *Solar Physics*, Volume 293, Issue 7.
30. “Twisting/Swirling Motions during a Prominence Eruption as Seen from SDO/AIA”, 2018, Pant, V., Datta, A., **Banerjee, Dipankar.**, Chandrashekhar, K. & Ray, S., *The Astrophysical Journal*, Volume 860, Issue 1.
31. “Long-term variation of sunspot penumbra to umbra area ratio: A study using Kodaikanal white-light Digitized Data”, 2018, Jha, Bibhuti Kumar., Mandal, Sudip. & **Banerjee, Dipankar.**, *Proceedings of the International Astronomical Union*, 13(S340), 185-186
32. “Automated detection of Coronal Mass Ejections in Visible Emission Line Coronagraph (VELC) on-board ADITYA-L1”, 2018, Patel, Ritesh., Amareswari, K., Pant, Vaibhav., **Banerjee, Dipankar.** & Sankarasubramanian, K., *Proceedings of the International Astronomical Union*, 13(S340), 171-172.
33. “An Overview of Science Results Obtained From Kodaikanal Digitized White-Light Data Archive: 1921-2011”, 2018, Mandal, Sudip & Banerjee, Dipankar, 2018, *Proceedings of the International Astronomical Union*, 13(S340), 196-197.

(1st April, 2017 to 31st March, 2018)

1. “High-resolution Observations of H α Spectra with a Subtractive Double Pass”, Beck, C.; Rezaei, R.; Choudhary, D. P.; Gosain, S.; Tritschler, A.; **Louis, R. E.**; 2018, *Solar Physics*, Volume 293, Issue 2, Article No. 36.
2. “Variation of Supergranule Parameters with Solar Cycles: Results from Century-long Kodaikanal Digitized Ca II K Data”, Chatterjee, Subhamoy; Mandal, Sudip; **Banerjee, Dipankar**; 2017, *The Astrophysical Journal*, Volume 841, Issue 2, Article No. 70.

3. “Long-term Study of the Solar Filaments from the Synoptic Maps as Derived from H-alpha Spectroheliograms of the Kodaikanal Observatory”, Chatterjee, Subhamoy; Hegde, Manjunath; **Banerjee, Dipankar**; Ravindra, B.; 2017, The Astrophysical Journal, Volume 849, Issue 1, Article No. 44.
4. “Validation of the CME Geomagnetic Forecast Alerts Under the COMESEP Alert System”, Dumbović, Mateja; **Srivastava, Nandita**; Rao, Yamini, K.; Vršnak, Bojan; Devos, Andy; Rodriguez, Luciano; 2017, Solar Physics, Volume 292, Issue 8, Article No. 96.
5. “Small electron acceleration episodes in the solar corona”, James, Tomin; **Subramanian, Prasad**; Kontar, Eduard P.; 2017, Monthly Notices of the Royal Astronomical Society, Volume 471, Issue 1, Article No. 89.
6. “A Statistical Study on the Frequency-dependent Damping of the Slow-mode Waves in Polar Plumes and Interplumes”, Mandal, Sudip; Krishna Prasad, S.; **Banerjee, Dipankar**; 2018, The Astrophysical Journal, Volume 853, Issue 2, Article No. 134.
7. “Kodaikanal digitized white-light data archive (1921 - 2011): Analysis of various solar cycle features”, Mandal, Sudip; Hegde, Manjunath; Samanta, Tanmoy; Hazra, Gopal; **Banerjee, Dipankar**; Ravindra, B.; 2017, Astronomy & Astrophysics, Volume 601, Article No. A106.
8. “Latitude Distribution of Sunspots: Analysis Using Sunspot Data and a Dynamo Model”, Mandal, Sudip; Karak, Bidya Binay; **Banerjee, Dipankar**; 2017, The Astrophysical Journal, Volume 851, Issue 1, Article No. 70.
9. “Association of Supergranule Mean Scales with Solar Cycle Strengths and Total Solar Irradiance”, Mandal, Sudip; Chatterjee, Subhamoy; **Banerjee, Dipankar**; 2017, The Astrophysical Journal, Volume 844, Issue 1, Article No. 24.
10. “Hanle-Zeeman Scattering Matrix for Magnetic Dipole Transitions”, Megha, A.; Sampoorna, M.; Nagendra, K.N.; **Sankarasubramanian, K.**; 2017, The Astrophysical Journal, Volume 841, Issue 2, Article No. 129.
11. “Carter constant and angular momentum”, Mukherjee, Sajal; **Nayak, R. K.**; 2017, International Journal of Modern Physics D, Volume 27, Article No. 1750180.
12. “Carter’s constant and superintegrability”, Mukhopadhyay, P.; **Nayak, R. K.**; 2018, International Journal of Modern Physics D, Volume 27, Article No. 1850066.
13. “The Large-scale Coronal Structure of the 2017 August 21 Great American Eclipse: An Assessment of Solar Surface Flux Transport Model Enabled Predictions and Observations”, **Nandy, Dibyendu; Bhowmik, Prantika**; Yeates, Anthony R.;

Panda, Suman; Tarafder, Rajashik; Dash, Soumyaranjan; 2018, The Astrophysical Journal, Volume 853, Issue 1, Article No. 72.

14. “Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGO’s first observing run”, **Nayak, R. K.;** under LIGO Scientific Collaboration and Virgo Collaboration; 2018, Classical and Quantum Gravity, Volume 35, Issue 6, Article No. 065010.
15. “First search for nontensorial gravitational waves from known pulsars”, **Nayak, R. K.;** under LIGO Scientific Collaboration and Virgo Collaboration; 2018, Physical Review Letters, Volume 120, Article No. 031104.
16. “GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral”, **Nayak, R. K.; Samajdar, A.** under LIGO Scientific Collaboration and Virgo Collaboration; 2017, PRL, Volume 119, Article No. 161101.
17. “Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817”, **Nayak, R. K., Samajdar, A.** under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal Letters, Volume 851, Issue 1, Article No. L16.
18. “First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data”, **Nayak, R. K.; Samajdar, A.;** under LIGO Scientific Collaboration and Virgo Collaboration; 2017, Physical Review D, Volume 96, Article No. 122006.
19. "Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914", **Nayak, R. K.; Samajdar, A.;** under LIGO Scientific Collaboration and Virgo Collaboration; 2017, Physical Review D, 95, 062003.
20. “First low-frequency Einstein@ Home all-sky search for continuous gravitational waves in Advanced LIGO data”, **Nayak, R. K.; Samajdar, A.;** under LIGO Scientific Collaboration and Virgo Collaboration; 2017, Physical Review D, Volume 96, Article No. 122004.
21. “Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory”, **Nayak, R. K.; Samajdar, A.;** under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal Letters, Volume 850, Issue 2, Article No. L35.
22. “A gravitational-wave standard siren measurement of the Hubble constant”, **Nayak, R. K.; Samajdar, A.;** under LIGO Scientific Collaboration and Virgo Collaboration; 2017,

Nature, Volume 551, Issue 7678.

23. "GW170608: Observation of a 19 solar-mass binary black hole coalescence", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal Letters, Volume 851, Article No. L35.
24. "Gravitational waves and gamma-rays from a binary neutron star merger: GW170817 and GRB 170817A", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal Letters, Volume 848, Article No. L13.
25. "Multi-messenger Observations of a Binary Neutron Star Merger", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal Letters, Volume 848, Issue 2, Article No. L12.
26. "Estimating the contribution of dynamical ejecta in the kilonova associated with GW170817", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal Letters, Volume 850, Article No. L39.
27. "On the Progenitor of Binary Neutron Star Merger GW170817", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal Letters, Volume 850, Article No. L40.
28. "All-sky search for periodic gravitational waves in the O1 LIGO data", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, Physical Review D, Volume 96, Article No. 062002.
29. "GW170814: A three-detector observation of gravitational waves from a binary black hole coalescence", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, Physical Review Letters, Volume 119, Article No. 141101.
30. "Upper limits on gravitational waves from Scorpius X-1 from a model-based cross-correlation search in Advanced LIGO data", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, The Astrophysical Journal, Volume 847, Article No. 47.
31. "Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, Physical Review D, Volume 95, Article No. 122003.
32. "Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO", **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo

Collaboration; 2017, Physical Review D, Volume 96, Article No. 022001.

33. “Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544”, **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration; 2017, Physical Review D, Volume 95, 8, Article No. 082005.
34. “GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2”, **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration; 2017, Physical Review Letters, Volume 118, Issue 22, Article No. 221101.
35. “The basic physics of the binary black hole merger GW150914”, **Nayak, R. K.; Samajdar, A.**; under LIGO Scientific Collaboration and Virgo Collaboration; 2017, Annalen der Physik, Volume 529, Issue 1-2, Article No. 1600209.
36. “A Sun-to-Earth Analysis of Magnetic Helicity of the 2013 March 17–18 Interplanetary Coronal Mass Ejection”, **Pal, Sanchita;** Gopalswamy, Nat; **Nandy, Dibyendu;** Akiyama, Sachiko; Yashiro, Seiji; Makela, Pertti; Xie, Hong; 2017, The Astrophysical Journal, Volume 851, Issue 2, Article No. 123.
37. “First Imaging Observation of Standing Slow Wave in Coronal Fan Loops”, Pant, V.; Tiwari, A.; Yuan, D.; **Banerjee, D.**; 2017, The Astrophysical Journal Letters, Volume 847, Issue 1, Article No. 5.
38. “CME Dynamics Using STEREO and LASCO Observations: The Relative Importance of Lorentz Forces and Solar Wind Drag”, Sachdeva, Nishtha; **Subramanian, Prasad;** Vourlidas, Angelos; Bothmer, Volker; 2017, Solar Physics, Volume 292, Issue 9, Article No. 118.
39. “Projected constraints on the dispersion of gravitational waves using advanced ground- and space-based interferometers”, **Samajdar, Anuradha;** Arun, K. G.; 2017, Physical Review D, Volume 96, Issue 10, Article No. 104027.
40. “Effects of waveform model systematics on the interpretation of GW150914”, **Samajdar, Anuradha;** under LIGO Scientific Collaboration; 2017, Classical and Quantum Gravity, Volume 34, Issue 10, Article No. 104002.
41. “Search for Gravitational Waves Associated with Gamma - Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B”, **Samajdar, Anuradha;** under LIGO Scientific Collaboration; 2017, The Astrophysical Journal, Volume 841, Issue 2, Article No. 89.
42. “First Search for Gravitational Waves from Known Pulsars with Advanced LIGO”, **Samajdar, Anuradha;** under LIGO Scientific Collaboration; 2017, The Astrophysical Journal, Volume 839, Issue 1, Article No. 12.

43. “Simulating Coronal Loop Implosion and Compressible Wave Modes in a Flare Hit Active Region”, Sarkar, Aveek; Vaidya, Bhargav; **Hazra, Soumitra**; Bhattacharyya, Jishnu; 2017, The Astrophysical Journal, Volume 851, Issue 2, Article No. 120
44. “A Comparative Study of the Eruptive and Non-eruptive Flares Produced by the Largest Active Region of Solar Cycle 24”, Sarkar, Ranadeep; **Srivastava, Nandita**; 2018, Solar Physics, Volume 293, Issue 2, Article No. 16.
45. “Interplanetary and Geomagnetic Consequences of Interacting CMEs of 13 – 14 June 2012”, **Srivastava, Nandita**, Wageesh Mishra, and D. Chakrabarty; 2018, Solar Physics, Volume 293, Article No. 5.
46. “The Horizontal Branch Population of NGC 1851 as Revealed by the Ultraviolet Imaging Telescope (UVIT)”, Subramaniam, Annapurni; Sahu, Snehalata; Postma, Joseph E.; Côté, Patrick; Hutchings, J. B.; Darukhanawalla, N.; Chung, Chul; Tandon, S. N.; Kameswara Rao, N.; George, K.; Ghosh, S. K.; Girish, V.; Mohan, R.; Murthy, J.; Pati, A. K.; **Sankarasubramanian, K.**; Stalin, C. S.; Choudhury, S.; 2017, The Astronomical Journal, Volume 154, Issue 6, Article No. 233.
47. “In-orbit Calibrations of the Ultraviolet Imaging Telescope”, Tandon, S. N.; Subramaniam, Annapurni; Girish, V.; Postma, J.; **Sankarasubramanian, K.**; Sriram, S.; Stalin, C. S.; Mondal, C.; Sahu, S.; Joseph, P.; Hutchings, J.; Ghosh, S. K.; Barve, I. V.; George, K.; Kamath, P. U.; Kathiravan, S.; Kumar, A.; Lancelot, J. P.; Leahy, D.; Mahesh, P. K.; Mohan, R.; Nagabhushana, S.; Pati, A. K.; Kameswara Rao, N.; Sreedhar, Y. H.; Sreekumar, P.; 2017, The Astronomical Journal, Volume 154, Issue 3, Article No. 128.
48. “In-orbit Performance of UVIT and First Results”, Tandon, S. N.; Hutchings, J. B.; Ghosh, S. K.; Subramaniam, A.; Koshy, G.; Girish, V.; Kamath, P. U.; Kathiravan, S.; Kumar, A.; Lancelot, J. P.; Mahesh, P. K.; Mohan, R.; Murthy, J.; Nagabhushana, S.; Pati, A. K.; Postma, J.; Rao, N. Kameswara; **Sankarasubramanian, K.**; Sreekumar, P.; Sriram, S.; Stalin, C. S.; Sutaria, F.; Sreedhar, Y. H.; Barve, I. V.; Mondal, C.; Sahu, S.; 2017, Journal of Astrophysics and Astronomy, Volume 38, Issue 2, Article No. 28.
49. “The Solar Ultraviolet Imaging Telescope on-board Aditya-L1”, **Tripathi, Durgesh**; **Ramprakash, A. N.**; Khan, Aafaque; **Ghosh, Avyarthana**; Chatterjee, Subhamoy; **Banerjee, Dipankar**; Chordia, Pravin; Gandorfer, Achim; Krivova, Natalie; **Nandy, Dibyendu**; Rajarshi, Chaitanya; Solanki, Sami, K.; 2017, Current Science, 113, 4, 25.
50. “Investigating the Relation between Sunspots and Umbral Dots”, Yadav, Rahul; **Louis, Rohan E.**; Mathew, Shibu K.; 2018, The Astrophysical Journal, Volume 855, Issue 1, Article No. 8.

Books

1. “Living Around Active Stars” - Proceedings of the 328th Symposium of the International Astronomical Union at Maresias, Brazil. 17 – 21 October 2016. Cambridge University Press ISSN 1743-9213, **Nandy, D.**; Valio, A.; Petit, P.; 2017

(1st April, 2016 to 31st March, 2017)

1. “A Proposed Paradigm for Solar Cycle Dynamics Mediated via Turbulent Pumping of Magnetic Flux in Babcock-Leighton-type Solar Dynamos”, Hazra, Soumitra; Nandy, Dibyendu; 2016, Astrophysical Journal, Volume 832, Issue 1, Article Number : 9.
2. “Space Weather Research: Indian perspective”, Bhardwaj, Anil; Pant, Tarun Kumar; Choudhary, R. K.; Nandy, Dibyendu; Manoharan, P. K.; 2016, Space Weather, Volume 14, Issue 12.
3. “Spin Hall effect of Light by Tailoring Space varying Polarization”, Pal, Mandira and Athira, BS and Mishra, Jatadhari and Nandy, Dibyendu and Ghosh, Nirmalya in 13th International Conference on Fiber Optics and Photonics, OSA Technical Digest, 2016.
4. “The Solar Ultraviolet Imaging Telescope onboard Aditya-L1”, Ghosh, Avyarthana; Chatterjee, Subhamoy; Khan, Aafaque R.; Tripathi, Durgesh; Ramaprakash, A. N.; Banerjee, Dipankar; Chordia, Pravin; Gandorfer, Achim M.; Krivova, Natalie; Nandy, Dibyendu; Rajarshi, Chaitanya; Solanki, Sami K.; Sriram, S., 2016, Proceedings of the SPIE, Volume 9905, Article Number: 990503.
5. “Fan Loops Observed by IRIS, EIS, and AIA”, Ghosh, Avyarthana; Tripathi, Durgesh; Gupta, G. R.; Polito, Vanessa; Mason, Helen E.; Solanki, Sami K., 2017, Astrophysical Journal, Volume 835, Issue 2, Article Number : 244.
6. “On the Bright Loop Top Emission in Post-eruption Arcades”, Sharma, Rohit; Tripathi, Durgesh; Isobe, Hiroaki; Ghosh, Avyarthana, 2016, Astrophysical Journal, Volume 823, Issue 1, Article Number : 47.
7. “A hot companion to a blue straggler in ngc188 as revealed by the ultra-violet imaging telescope (uvit) on astrosat”, Annapurni, Subramaniam; Sindhu, N.; Tandon S., N.; Kameswara, Rao N.; Postma, J.; Patrick, Cot'e; Hutchings, J.; Ghosh S., K.; K., George; Girish, V.; Mohan, R.; Murthy, J.; Sankarasubramanian, K.; Stalin C.,S.; Sutaria,F.;Mondal, C.;Sahu, S.,2016,Astrophysical Journal Letters, Volume 833, Issue 2, Article Number : L27.

8. "Relative Contribution of the Magnetic Field Barrier and Solar Wind Speed in ICME-associated Forbush Decreases", Bhaskar A; Subramanian P; Vichare , 2016, Astrophysical Journal, Volume 828, Issue 2, Article Number : 104.
9. "Amplitude of solar wind density turbulence from 10 to 45 R_{\odot} ", Sasikumar Raja, K.; Ingale, Madhusudan; Ramesh, R.; Subramanian, Prasad; Manoharan, P. K.; Janardhan, P., 2017, J. Geophys. Res. Space Physics, Volume 121, Issue 11, Article Number : 619.
10. "On Understanding the Nature of Collisions of Coronal Mass Ejections Observed by STEREO", Mishra, Wageesh; Wang, Yuming; Srivastava, Nandita, 2016, Astrophysical Journal, Volume 831, Issue 1, Article Number : 99.
11. "Transient Weakening of Earth's Magnetic Shield Probed by a Cosmic Ray Burst", P. K. Mohanty, K. P. Arunbabu, T. Aziz, S. R. Dugad, S. K. Gupta, B. Hariharan, P. Jagadeesan, A. Jain, S. D. Morris, B. S. Rao, Y. Hayashi, S. Kawakami, A. Oshima, S. Shibata, S. Raha, P. Subramanian, and H. Kojima P., Physical Review Letters, Issue 17, Volume 117, Article Number : 171101.
12. "Reflection of Propagating Slow Magneto-acoustic Waves in Hot Coronal Loops: Multi-instrument Observations and Numerical Modeling", Mandal, Sudip; Yuan, Ding; Fang, Xia; Banerjee, Dipankar; Pant, Vaibhav; Van Doorselaere, Tom; 2016, Astrophysical Journal, Volume 828, Issue 2, Article Number : 72.
13. "The Effects of Transients on Photospheric and Chromospheric Power Distributions", Samanta, T.; Henriques, V. M. J.; Banerjee, D.; Krishna Prasad, S.; Mathioudakis, M.; Jess, D.; Pant, V., 2016, Astrophysical Journal, Volume 828, Issue 1, Article Number : 23.
14. "A Butterfly Diagram and Carrington Maps for Century-long CA II K Spectroheliograms from The Kodaikanal Observatory", Chatterjee, Subhamoy; Banerjee, Dipankar; Ravindra, B. 2016 Astrophysical Journal, Volume 827, Issue 1, Article Number : 87.
15. "Dynamics of Subarcsecond Bright Dots in the Transition Region above Sunspots and Their Relation to Penumbra Micro-jets", Samanta, Tanmoy; Tian, Hui; Banerjee, Dipankar; Schanche, Nicole, 2017, Astrophysical Journal Letters, Volume 835, Issue 2, Article Number : L19.
16. "Association of Plages with Sunspots: A Multi-Wavelength Study Using Kodaikanal Ca ii K and Greenwich Sunspot Area Data", Mandal, Sudip; Chatterjee, Subhamoy;

Banerjee, Dipankar, 2017, *Astrophysical Journal*, Volume 835, Issue 2, Article Number : 158.

17. “Solar Active Longitudes from Kodaikanal White-light Digitized Data”, Mandal, Sudip; Chatterjee, Subhamoy; Banerjee, Dipankar, 2017, *Astrophysical Journal*, Volume 835, Issue 1, Article Number : 62.
18. “Unravelling the Components of a Multi-thermal Coronal Loop using Magnetohydrodynamic Seismology”, Prasad, S. K.; Jess, D. B.; Klimchuk, J. A.; Banerjee, D., 2017, *Astrophysical Journal*, Volume 834, Issue 2, Article Number : 103.
19. “Automated Detection of Coronal Mass Ejections in STEREO Heliospheric Imager Data“, Pant, V.; Willems, S.; Rodriguez, L.; Mierla, M.; Banerjee, D.; Davies, J. A., 2016, *Astrophysical Journal*, Volume 833, Issue 1, Article Number : 80.
20. “Simultaneous Longitudinal and Transverse Oscillations in an Active-Region Filament“, 2016, Pant, Vaibhav; Mazumder, Rakesh; Yuan, Ding; Banerjee, Dipankar; Srivastava, Abhishek K., Shen, Yuandeng, *Solar Physics* Volume 291, Issue 11.
21. “Transverse Oscillations in a Coronal Loop Triggered by a Jet“, Sarkar, S.; Pant, V.; Srivastava, A. K.; Banerjee, D., 2016, *Solar Physics*, Volume 291, Issue 11. “Sunspot Sizes and the Solar Cycle: Analysis Using Kodaikanal White-light Digitized Data”, Mandal, Sudip; Banerjee, Dipankar, 2016, *Astrophysical Journal Letters*, Volume 830, Issue 2, Article Number : L33.
22. “Statistical Study of Network Jets Observed in the Solar Transition Region: a Comparison Between Coronal Holes and Quiet-Sun Regions”, Narang, Nancy; Arbacher, Rebecca T.; Tian, Hui; Banerjee, Dipankar; Cranmer, Steven R.; DeLuca, Ed E.; McKillop, Sean, 2016, *Solar Physics*, Volume 291, Issue 4.
23. “Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914”, Abbott, B. P. et. al., 2016, (LIGO Sci Collaboration including Rajesh Nayak), *Classical and Quantum Gravity*, Volume: 33, Issue: 13, Article Number: 134001.
24. “High-energy neutrino follow-up search of gravitational wave event GW150914 with ANTARES and IceCube”, Adrian-Martinez et. al., 2016, (LIGO Sci Collaboration

including Rajesh Nayak), Physical Review D, Volume: 93, Issue: 12, Article Number: 122010.

25. "Search for transient gravitational waves in coincidence with short-duration radio transients during 2007-2013 ", Abbott, B. P. et. al., 2016, (LIGO Sci Collaboration including Rajesh Nayak), Physical Review D, Volume: 93, Issue: 12, Article Number: 122008.
26. "GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence", Abbott, B. P. et. al., 2016, (LIGO Sci Collaboration including Rajesh Nayak), Physical Review Letters Volume: 116 Issue: 24, Article Number: 241103.
27. "Properties of the Binary Black Hole Merger GW150914", Abbott, B. P. et. al., 2016, (LIGO Sci Collaboration including Rajesh Nayak), Physical Review Letters, Volume: 116, Issue: 24, Article Number: 241102.
28. "GW150914: First results from the search for binary black hole coalescence with Advanced LIGO", Abbott, B. P. et. al., 2016, (LIGO Sci Collaboration including Rajesh Nayak), Physical Review D, Volume: 93, Issue: 12, Article Number: 122003.
29. "Observing gravitational-wave transient GW150914 with minimal assumptions", Abbott, B. P. et. al., 2016, (LIGO Sci Collaboration including Rajesh Nayak), Physical Review D, Volume: 93 Issue: 12, Article Number: 122004.
30. "Tests of General Relativity with GW150914", Abbott, B. P. et. al., 2016, (LIGO Sci Collaboration including Rajesh Nayak), Physical Review Letters, Volume: 116, Issue: 22, Article Number: 221101.
31. "Relationships between fluid vorticity, kinetic helicity and magnetic field at the small-scale (Quiet-Network) on the Sun", C.R. Sangeetha; S.P. Rajaguru, 2016, Astrophysical Journal, Volume 824, Issue 2, Article Number 120.
32. "Exploring the sensitivity of next generation gravitational wave detectors", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2017, Classical and Quantum Gravity, Volume 34, Issue 4, Article Number : 044001.

33. "The basic physics of the binary black hole merger GW150914", Abbott B. P. et. al (LSC including Rajesh Nayak and Anuradha Samajdar), 2017, *Annalen der Physik*, Volume 529, Issue 1.
34. "The rate of binary black hole mergers inferred from Advanced LIGO observations surrounding GW150914" Abbott et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, *Astrophysical Journal Letters*, Volume 833, Issue: 1, Article Number: L1.
35. "Upper limits on the rates of binary neutron star and neutron star–black hole mergers from advanced ligo’s first observing run", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, *Astrophysical Journal Letters*, Volume 832, Issue: 2, Article Number: L21.
36. "Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@ Home volunteer distributed computing project", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, *Physical Review D*, Volume 94, Issue: 10, Article Number: 102002.
37. "First targeted search for gravitational-wave bursts from core-collapse supernovae in data of first-generation laser interferometer detectors", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, *Physical Review D*, Volume 94, Issue 10, Article Number: 102001.
38. "Improved analysis of GW150914 using a fully spin-precessing waveform model", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, *Physical Review X*, Volume 6, Issue 4, Article Number: 041014.
39. "Binary black hole mergers in the first Advanced LIGO observing run", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, *Physical Review X*, Volume 6, Issue 4, Article Number: 041015.
40. "Directly comparing GW150914 with numerical solutions of Einstein’s equations for binary black hole coalescence", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, *Physical Review D*, Volume 94, Issue 6, Article Number: 064035.

41. "Comprehensive all-sky search for periodic gravitational waves in the sixth science run LIGO data", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, Physical Review D, Volume 94, Issue 4, Article Number: 042002.
42. "Localization and broadband follow-up of the gravitational-wave transient GW150914", Abbott B.P. et. al. (LSC including Rajesh Nayak and Anuradha Samajdar), 2016, Astrophysical Journal Letters, Volume 826, Issue 1, Article Number: L13.

(1st April, 2015 to 31st March, 2016)

1. "Understanding Space Weather to Shield Society: A Global Roadmap for 2015-2025 Commissioned by COSPAR and ILWS", Schrijver, C. et. al. 2015 (International Space Weather Roadmap team, Twenty-six members, including Dibyendu Nandy), Advances in Space Research, Volume 55, Page 2745.
2. "Observation of Gravitational Waves from a Binary Black Hole Merger", R Nayak with LIGO Scientific collaboration, 2016, Physical Review Letters, 116, 061102.
3. "Astrophysical Implications of the Binary Black Hole Merger GW150914", 2016, ApJ Letters, 818, L22.
4. "Searches for Continuous Gravitational Waves from Nine Young Supernova Remnants", R Nayak with LIGO Scientific collaboration, 2015, ApJ, 813, 39, 16 pp.
5. "Characterization of the LIGO detectors during their sixth science run" R Nayak with LIGO Scientific collaboration, 2015, Classical and Quantum Gravity, 32, 115012.
6. "Advanced LIGO", R Nayak, with LIGO Scientific collaboration, 2015, Classical and Quantum Gravity, 32, 074001.
7. CME Propagation: Where does Aerodynamic Drag "Take Over"? Sachdeva, Nishtha; Subramanian, Prasad; Colaninno, Robin; Vourlidis, Angelos 2015, Astrophysical Journal, vol 809, p. 158.
8. How are Forbush decreases related with interplanetary magnetic field enhancements? Arunbabu, K. P., Antia, H. M., Dugad, S. R., Gupta, S. K., Hayashi, Y., Kawakami, S., Mohanty, P. K., Oshima, A., and Subramanian, P. 2015, Astronomy and Astrophysics, vol 580, p A41.
9. The structure of solar radio noise storms Mercier, C., Subramanian, P., Chambe, G. and Janardhan, P. 2015, Astronomy and Astrophysics, vol 576, p A136.

10. Exploring the phase explosion of water using SOM-mediated micro-bubbles; Basudev Roy, Mayukh Panja, Subhrokoli Ghosh, Supratim Sengupta, Dibyendu Nandy and Ayan Banerjee. 2016, *New J. of Chemistry*, 40, 1048.
11. Modeling Solar Coronal Bright-point Oscillations with Multiple Nanoflare Heated Loops- Chadrashekhkar K., Sarkar Aweek; 2015, *ApJ*, 810, 163.
12. "Characterization of an Acousto - Optic Tunable Filter for Development of a Near - IR Spectrometer for Planetary Science", Prince Agrawal, A. Nandi, M. Sudhakar, B. Jaiswal, Anurag Tyagi, and K. Sankarasubramanian, 2015, *Experimental Astronomy*, 39, 445.
13. 'P-mode Interaction with Sunspots'; Cally, P.S., Moradi, H., Rajaguru, S.P. 2016 (to appear), *AGU Chapman Reviews*.
14. "Modeling Approaches in Helioseismology" in Book 'Extraterrestrial Seismology', Cambridge University Press, Rajaguru, S.P., Chapter 9; August 2015, isbn: 9781107041721, eds. Vincent C.H. Tong and Rafael A. Garcia.
15. Kinematics of interacting CMEs of 25 and 28 September 2012, 2015, *Journal of Geophysical Research: Space Physics*, Wageesh Mishra, Nandita Srivastava, and Talwinder Singh, Volume 120, Issue 12, pp. 10, 221-10, 236.
16. Heliospheric tracking of enhanced density structures of 2010 October 6 CME, 2015, *Journal of Space Weather and Space Climate*, Wageesh Mishra and Nandita Srivastava, Volume 5, id.A20, 12 pp.
17. Observations of Oppositely Directed Umbral Wavefronts Rotating in Sunspots Obtained from the New Solar Telescope of BBSO, Su, J. T.; Ji, K. F.; Cao, W.; Banerjee, D.; Priya, T. G.; Zhao, J. S.; Bai, X. Y.; Chen, J.; Zhang, M.; Ji, H. S., 2016, *ApJ*, 817, 117.
18. Detection of High-Frequency Oscillations and Damping from Multi-slit Spectroscopic Observations of the Corona, Samanta, T.; Singh, J.; Sindhuja, G.; Banerjee, D., 2016, *Solar Physics*, 291,155. doi: 10.1007/s11207-015-0821-x.
19. Interference of the Running Waves at Light Bridges of a Sunspot, Su, J. T.; Ji, K. F.; Banerjee, D.; Cao, W. D.; Priya, T. G.; Zhao, J. S.; Yu, S. J.; Ji, H. S.; Zhang, M., 2016, *ApJ*, 816, 30. doi:10.3847/0004-637X/816/1/30.
20. Propagating Disturbances in the Solar Corona and Spicular Connection, Samanta, Tanmoy; Pant, Vaibhav; Banerjee, Dipankar, 2015, *ApJL*, 815, L16. doi: 10.1088/2041-8205/815/1/L16.
21. Propagating disturbances along fan-like coronal loops in an active region, Mandal, Sudip; Samanta, Tanmoy; Banerjee, Dipankar; Krishna Prasad, S.; Teriaca, Luca, 2015, *RAA*, 15, 006. doi: 0.1088/1674-4527/15/11/006.

22. Forward Modeling of Standing Slow Modes in Flaring Coronal Loops, Yuan, D.; Van Doorselaere, T.; Banerjee, D.; Antolin, P., 2015, ApJ, 807, 98. doi:10.1088/0004-637X/807/1/98.
23. Dynamics of On-disk Plumes as Observed with the Interface Region Imaging Spectrograph, the Atmospheric Imaging Assembly, and the Helioseismic and Magnetic Imager, Pant, Vaibhav; Dolla, Laurent; Mazumder, Rakesh; Banerjee, Dipankar; Krishna Prasad, S.; Panditi, Vemareddy, 2015, ApJ, 807, 71. doi:10.1088/0004-637X/807/1/71.
24. Correlation Between Decay Rate and Amplitude of Solar Cycles as Revealed from Observations and Dynamo Theory, Hazra, Gopal; Karak, Bidya Binay; Banerjee, Dipankar; Choudhuri, Arnab Rai, 2015, Solar Physics, 290, 1851. doi: 10.1007/s11207-015-0718-8.
25. Quasi-periodic Oscillation of a Coronal Bright Point, Samanta, Tanmoy; Banerjee, Dipankar; Tian, Hui, 2015, ApJ, 806, 172. doi:10.1088/0004-637X/806/2/172.
26. Meridional Circulation in the Solar Convection Zone: Time-Distance Helioseismic Inferences from Four Years of HMI/SDO Observations, Rajaguru, S.P.; Antia, H.M. , 2015, ApJ, 813, 114. doi:10.1008/0004-637X/813/114.
27. 3D Simulations of Realistic Power Halos in Magnetohydrostatic Sunspot Atmospheres: Linking Theory and Observation, Rijs, S.; Rajaguru, S.P., Przybylski, D. et al. , 2016, ApJ, 817, 45. doi:10.3847/0004-637X/817/1/45.

(Before 1st April, 2015)

1. “A Stochastically Forced Time Delay Solar Dynamo Model: Self-consistent Recovery from a Maunder-like Grand Minimum Necessitates a Mean-field Alpha Effect”, Hazra, S., Passos, D., Nandy, D. 2014, Astrophysical Journal, Volume 789, Page 5.
2. “A Solar Dynamo Model Driven by Mean-Field Alpha and Babcock-Leighton Sources: Fluctuations, Grand-Minima-Maxima, and Hemispheric Asymmetry in Sunspot Cycles”, Passos, D., Nandy, D., Hazra, S & Lopes, I. 2014, Astronomy and Astrophysics, Volume 563, Page 18.
3. “The Solar-Stellar Connection” (Invited Review), Brun, A. S., García, R. A., Houdek, G., Nandy, D. & Pinsonneault, M. 2015, Space Science Reviews, Volume 196, Page 303 (doi: 10.1007/s11214-014-0117-8).

4. "The Relationship between Solar Coronal X-Ray Brightness and Active Region Magnetic Fields: A Study Using High Resolution Hinode Observations", Hazra, S., Nandy, D., Ravindra, B. 2015, Solar Physics, Volume 290, Page 771.
5. "Directed search for gravitational waves from Scorpius X-1 with initial LIGO data" R Nayak with LIGO Scientific collaboration, 2015, Physical Review D, 91, 062008.
6. "Searching for stochastic gravitational waves using data from the two collocated LIGO Hanford detectors", R Nayak with LIGO Scientific collaboration, 2015, Physical Review D, 91, 022003.
7. "Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data", R. Nayak with LIGO Scientific collaboration, 2015, Physical Review D, 91, 022004.
8. "Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube", R Nayak with LIGO Scientific collaboration, 2014, Physical Review D, 90, 102002.
9. "First all-sky search for continuous gravitational waves from unknown sources in binary systems", R Nayak with LIGO Scientific collaboration, 2014, Physical Review D, 90, 0620103.
10. "Search for gravitational waves associated with γ -ray bursts detected by the interplanetary network", R Nayak with LIGO Scientific collaboration, 2014, Physical review letters, 113, 0111022.
11. "Search for gravitational radiation from intermediate mass black hole binaries in data from the second LIGO-Virgo joint science run", R Nayak with LIGO Scientific collaboration, 2014, Physical Review D, 89, 122003.
12. "Methods and results of a search for gravitational waves associated with gamma-ray bursts using the GEO 600, LIGO, and Virgo detectors", R Nayak with LIGO Scientific collaboration, 2014, Physical Review D, 89, 122004.
13. "Implementation of an F -statistic all-sky search for continuous gravitational waves in Virgo VSR1 data", R Nayak with LIGO Scientific collaboration, 2014, Classical and quantum gravity, 31, 165014.
14. "Application of a Hough search for continuous gravitational waves on data from the fifth LIGO science run", R Nayak with LIGO Scientific collaboration, 2014, Classical and quantum gravity, 31, 085014.
15. "Improved Upper Limits on the Stochastic Gravitational- Wave Background from 2009–2010 LIGO and Virgo Data", R Nayak with LIGOScientificcollaboration, 2014, Physical review letters, 113, 231101.

16. “Search for gravitational wave ring downs from perturbed intermediate mass black holes in LIGO-Virgo data from 2005–2010”, R Nayak with LIGO Scientific collaboration, 2014, *Physical Review D*, 89, 102006.
17. “First searches for optical counterparts to gravitational- wave candidate events”, R Nayak with LIGO Scientific collaboration, 2014, *The Astrophysical Journal Supplement Series*”, 211, 7.
18. “The NINJA-2 project: detecting and characterizing gravitational wave forms modelled using numerical binary black hole simulations”, R Nayak with LIGO Scientific collaboration, 2014, *Classical and quantum gravity*, 31, 115004.
19. “Gravitational waves from known pulsars: results from the initial detector era”, R Nayak with LIGO Scientific collaboration, 2014, *The Astrophysical Journal*, 785, 119.
20. “Constraints on cosmic strings from the LIGO-Virgo gravitational-wave detectors”, R Nayak with LIGO Scientific collaboration, 2014, *Physical review letters*, 112, 131101.
21. “Properties of small-scale magnetism of stellar atmospheres”, O. Steiner, R. Salhab, B. Freytag, S.P. Rajaguru, W. Schaffnerberger and M. Steffen 2014, *Pub. Astron. Soc. of Japan*, 66 (SP1), S5.
22. “Low-frequency Waves in Space Plasmas.”, Banerjee, D., Krishna Prasad, S. Wiley/AGU monograph entitled , 2015, arXiv150504475B, MHD Waves in the coronal holes.
23. “Flows and Waves in Braided Solar Coronal Magnetic Structures”, Pant, V., Datta, A., Banerjee, D., 2015, *ApJ.*, 801, 2.
24. “Polar Network Index as a Magnetic Proxy for the Solar Cycle Studies”, Priyal, Muthu, Banerjee, Dipankar, Karak, Bidya Binay, Muñoz-Jaramillo, Andrés, Ravindra, B., Choudhuri, Arnab Rai, Singh, Jagdev, 2014, *ApJ*, 793, 4, Polar Network Index as a Magnetic Proxy for the Solar Cycle Studies.
25. “Frequency-dependent Damping in Propagating Slow Magneto-acoustic Waves”, Krishna Prasad, S., Banerjee, D., Van Doorselaere, T., 2014, *ApJ*, 789.
26. “Self-Similar Expansion Of Solar Coronal Mass Ejections: Implications For Lorentz Self-Force Driving” Prasad Subramanian, K. P. Arunbabu, Angelos Vourlidas and Adwiteey Mauriya, 2014, *The Astrophysical Journal* , 790:125 (7pp).
27. “Coronal turbulence and the angular broadening of radio sources – the role of the structure function”, M. Ingale, P. Subramanian, and Iver Cairns, 2015, *MNRAS* 447, 3486–3497.

28. Plasma β Scaling of Anisotropic Magnetic Field Fluctuations in the Solar Wind Flux Tube- Sarkar Aavek, Bhattacharjee Amitava, Ebrahimi Fatima; 2014, Astrophysical Journal, 783, 65.
29. “ASTROSAT Mission”, Singh, KP; Tandon, S. N.; Agrawal, P. C.; Antia, H. M.; Manchanda, R. K.; Yadav, J. S.; Seetha, S.; Ramadevi, M. C.; Rao, A. R.; Bhattacharya, D.; and 39 coauthors (K. Sankarasubramanian), 2014, SPIE, 9144, 1.
30. “Elemental Abundances in the Solar Corona as Measured by the X-ray Solar Monitor Onboard Chandrayaan-1”, Narendranath, S.; Sreekumar, P.; Alha, L.; Sankarasubramanian, K.; Huovelin, J.; Athiray, P. S., 2014, Solar Physics, 289, 1585.
31. Evolution and Consequences of Interacting CMEs of 2012 November 9-10 using STEREO/SECCHI and In Situ Observations Solar Physics, Wageesh Mishra, Nandita Srivastava and D. Chakrabarty, February 2015, Volume 290, Issue 2, pp 527-552.
32. Narrow-band imaging system for MAST at USO Solar Physics, A. Raja Bayanna, Shibu K. Mathew, P. Venkatakrisnan and Nandita Srivastava, Vol 289, Issue 10, 4007-4019, doi:10.1007/s11207-014-0557-z), 2014.
33. Morphological and kinematic evolution of three interacting CMEs of 2011 February 13-15, Wageesh Mishra and Nandita Srivastava., 2014, ApJ, 794 64. doi:10.1088/0004-637X/794/1/64.
34. A Comparison of Reconstruction Methods for the Estimation of Coronal Mass Ejections Kinematics Based on SECCHI/HI Observations, Wageesh Mishra, Nandita Srivastava, and Jackie A. Davies, 2014, The Astrophysical Journal, Volume 784, p. 135, 16pp, doi:10.1088/0004-637X/784/2/135.
35. “Directed search for continuous gravitational waves from the Galactic center”, 2013, Aasi, J., et al (including Nayak, Rajesh K.), Physical Review D, Volume 88, Number 10, Pages 102002.
36. “Search for long-lived gravitational-wave transients coincident with long gamma-ray bursts”, 2013, Aasi, J., et al (including Nayak, Rajesh K.), Physical Review D, Volume 88, Number 12, Pages 122004.