# Shouvik Roy Choudhury

**Distinguished Postdoctoral Fellow** | Academia Sinica Institute of Astronomy and Astrophysics (ASIAA), Taiwan

11F Astronomy-Mathematics Building, AS/NTU, No. 1, Sec. 4, Roosevelt Rd, Taipei 106319, Taiwan, R.O.C.
Email: shouvikroychoudhury@gmail.com | ORCID: 0000-0002-5589-3454

## RESEARCH OVERVIEW

My research focuses on **data-driven observational and phenomenological cosmology** at the interface of particle physics and cosmology, using precision observations to probe neutrino physics, dark energy, and beyond-Standard Model scenarios. I develop Bayesian and high-dimensional inference methods to extract robust constraints from cosmic microwave background and large-scale-structure data, with particular emphasis on systematics, parameter degeneracies, and cosmological tensions, especially the Hubble tension.

- **11 first-author contribution journal papers**; 5 first-author papers have 100+ citations.
- Published **four first-author papers (out of which two are single-author) in *Astrophysical Journal Letters* (Impact Facor: 11.1)**, including one single-author paper with 145 citations and one two-author paper with 198 citations.
- First-author JCAP paper arXiv:2012.07519 demonstrated that massive neutrino self-interactions cannot resolve the Hubble tension once Planck CMB polarization data are included, ruling out a prominent proposed solution.

## POSTDOCTORAL EXPERIENCE

**Total postdoctoral research experience:** approximately 6.7 years as of 28 October 2026.

**Distinguished Postdoctoral Fellow** 3 Jul 2023–present
Academia Sinica Institute of Astronomy and Astrophysics (ASIAA), Taiwan

**Postdoctoral Fellow** 1 Aug 2022–28 Jun 2023
Inter-University Centre for Astronomy and Astrophysics (IUCAA), India

**Postdoctoral Fellow** 19 Feb 2020–22 Jul 2022
Department of Physics, Indian Institute of Technology Bombay (IITB), India

## EDUCATION

**PhD in Physics, Harish-Chandra Research Institute (HRI), Allahabad, India** Jan 2016–Jan 2020
Part of Integrated MSc-PhD. Research area: Neutrino Cosmology.
Thesis advisor: Prof. Sandhya Choubey (KTH Royal Institute of Technology).
Thesis: *Neutrino Mass Bounds from Cosmology*. Defended: 29 Jan 2020; degree awarded: 4 Mar 2020.
Degree granting University: Homi Bhabha National Institute (HBNI), India

**Masters in Physics, Harish-Chandra Research Institute (HRI), Allahabad, India** Aug 2013–Dec 2015
Part of Integrated MSc-PhD. Final grade: 83.5%; Rank: 1st in the class.

**Bachelors in Electrical Engineering, Jadavpur University, Kolkata, India** Jul 2007–Jun 2011
Cumulative GPA: 8.5/10.

## SOFTWARE TOOLS AND RESEARCH SKILLS

- **Cosmology and inference:** Bayesian inference and sampling algorithms for high-dimensional probability distributions; MCMC and nested sampling; CosmoMC, Cobaya, MontePython; Boltzmann solvers CAMB and CLASS; modification of CAMB and CosmoMC to incorporate new physical models and parameters; CosmoChord/PolyChord for Bayesian evidences and model comparison.
- **High-performance computing:** HRI-HPC, Spacetime HPC at IIT Bombay, Grendel-Slurm at Aarhus University, and Tiara at ASIAA.
- **Machine learning/AI and scientific computing:** PyTorch, NumPy, SciPy, scikit-learn.
- **Programming:** Python, C, C++, Fortran, Bash. **Operating systems:** Linux/Ubuntu, macOS, Windows.
- **Other tools:** Mathematica, Gnuplot, Git, Vi, MPI, OpenMP, LaTeX.

## FUNDING, AWARDS, RECOGNITIONS, FELLOWSHIPS

**Research grant:** Sole PI of a research grant of USD 8000 per year for 4 years (total 32000 USD), attached to the Distinguished Postdoctoral Fellowship from ASIAA, Taiwan (3 Jul 2023–2 Jul 2027).

- Included in the Stanford–Elsevier Top 2% Scientists list (2026 edition), based on single-year citation impact in 2025.
- First-author publication arXiv:2409.13022, published in *ApJ Letters*, selected for Academia Sinica Research Highlights 2024.
- India Top Cited Paper Award 2024 from IOP Publishing in Astronomy and Astrophysics for *Updated constraints on massive neutrino self-interactions from cosmology in light of the H0 tension* (JCAP).
- AS Postdoctoral Fellowship from Academia Sinica, Taiwan, Jan 2024–Dec 2025.
- Distinguished Postdoctoral Fellowship from ASIAA, Taiwan, with research grant of USD 8000 per year for 4 years, 3 Jul 2023–2 Jul 2027.
- India Top Cited Paper Award 2021 from IOP Publishing in Astronomy and Astrophysics for *Updated bounds on sum of neutrino masses in various cosmological scenarios* (JCAP).
- HRI-INFOSYS Prize for distinction in research in particle physics, 15 Aug 2018.

- Senior Research Fellowship, HRI, funded by Department of Atomic Energy, Aug 2016–Feb 2020.
- Junior Research Fellowship, HRI, funded by Department of Atomic Energy, Aug 2014–Jul 2016.
- Ranked 16 nationally in CSIR-UGC NET Physics, Jun 2015.
- Ranked 67 nationally, 97.88 percentile, in JEST 2013.
- Ranked 305 among approximately 87,000 students, 99.65 percentile, in WBJEE Engineering and Technology 2007.

## PUBLICATIONS

**Publication summary**
15 published journal papers and 1 conference paper.
**Citations**
1910 INSPIRE; 1685 NASA ADS; 1915 Google Scholar; h-index: 14.
**Average impact**
Average citations per published paper: 127.0

**First-author record**
First-author contributions and corresponding-author role for 11 journal papers and 1 conference paper.
**First-author citations**
1036 INSPIRE citations; average citations per first-author-contribution publication: 94.2
**ADS normalized citation count**
519.3

The five most important publications are marked with an asterisk. Citation counts for individual papers are quoted from INSPIRE as of 28 October 2026.

FIRST AUTHOR JOURNAL PUBLICATIONS (11): #1, #2 ,#3, #4, #5, #9, #11, #12, #14, #15, #16
FIRST AUTHOR CONFERENCE PAPER (1) : #7

**16.** **Shouvik Roy Choudhury**, "Updated 1.1% Precision Values of the Hubble Constant with Corrected Pantheon+ and Dark Energy Survey (DES)-DOVEKIE Type Ia Supernovae," 2026 *ApJL* **1008** L50, arXiv:2607.24443. Citations: 4.
Quartile: Q1, Journal Impact Factor: 11.1

**15. *** **Shouvik Roy Choudhury**, Teppei Okumura, Keiichi Umetsu, "Cosmological constraints on nonphantom dynamical dark energy with DESI Data Release 2 Baryon Acoustic Oscillations: A 3σ+ lensing anomaly," *ApJL* 994 L26 (2025), arXiv:2509.26144. Citations: 57.
Quartile: Q1, Journal Impact Factor: 11.1

**14. *** **Shouvik Roy Choudhury**, "Cosmology in Extended Parameter Space with DESI Data Release 2 Baryon Acoustic Oscillations: A 2-sigma+ Detection of Nonzero Neutrino Masses with an Update on Dynamical Dark Energy and Lensing Anomaly," *ApJL* 986 L31 (2025), arXiv:2504.15340. Citations: 145.
Quartile: Q1, Journal Impact Factor: 11.1

**13.** Eleonora Di Valentino, Jackson Levi Said, Adam Riess, ..., **Shouvik Roy Choudhury** et al., "The CosmoVerse White Paper: Addressing observational tensions in cosmology with systematics and fundamental physics," *Phys. Dark Univ.* 101965 (2025), arXiv:2504.01669. Citations: 704.
Quartile: Q1, Journal Impact Factor: 7.4

**12. *** **Shouvik Roy Choudhury**, Teppei Okumura, "Updated Cosmological Constraints in extended parameter space with Planck PR4, DESI Baryon Acoustic Oscillations, and Supernovae: Dynamical dark energy, neutrino masses, lensing anomaly, and the Hubble tension," *ApJL* 976 L11 (2024), arXiv:2409.13022. Citations: 198.
Quartile: Q1, Journal Impact Factor: 11.1

**11.** Nilay Bostan, **Shouvik Roy Choudhury**, "First constraints on non-minimally coupled Natural and Coleman-Weinberg inflation and massive neutrino self-interactions with Planck+BICEP/Keck," *JCAP* 07 (2024) 032, arXiv:2310.01491. Citations: 23.
Quartile: Q1, Journal Impact Factor: 6.4

**10.** Ruchika, Himansh Rathore, **Shouvik Roy Choudhury**, Vikram Rentala, "A gravitational constant transition within cepheids as supernovae calibrators can solve the Hubble tension," *JCAP* 06 (2024) 056, arXiv:2306.05450. Citations: 46.
Quartile: Q1, Journal Impact Factor: 6.4

**9.** **Shouvik Roy Choudhury**, Steen Hannestad, Thomas Tram, "Massive neutrino self-interactions and inflation," *JCAP* 10 (2022) 018, arXiv:2207.07142. Citations: 53.
Quartile: Q1, Journal Impact Factor: 6.4

**8.** Stefano Gariazzo, Martina Gerbino, Thejs Brinckmann, Massimiliano Lattanzi, Olga Mena, Thomas Schwetz, **Shouvik Roy Choudhury**, Katherine Freese, Steen Hannestad, Christoph A. Ternes, Mariam Tortola, "Neutrino mass and mass ordering: No conclusive evidence for normal ordering," *JCAP* 10 (2022) 010, arXiv:2205.02195. Citations: 71.
Quartile: Q1, Journal Impact Factor: 6.4

**7.** **Shouvik Roy Choudhury**, Steen Hannestad, Thomas Tram, "Massive Neutrino Self-interactions and the Hubble Tension," *J. Phys.: Conf. Ser.* 2156 (1), 012016 (2022), doi:10.1088/1742-6596/2156/1/012016. Citations: 5.

**6.** Azadeh Moradinezhad Dizgah, Garrett K. Keating, Kirit S. Karkare, Abigail Crites, **Shouvik Roy Choudhury**, "Neutrino Properties with Ground-Based Millimeter-Wavelength Line Intensity Mapping," *ApJ* 926 137 (2022), arXiv:2110.00014. Citations: 48.
Quartile: Q1, Journal Impact Factor: 5.7

5. * **Shouvik Roy Choudhury**, Steen Hannestad, Thomas Tram, "Updated constraints on massive neutrino self-interactions from cosmology in light of the H0 tension," *JCAP* 03 (2021) 084, arXiv:2012.07519. Citations: 142.
   Quartile: Q1, Journal Impact Factor: 6.4
4. * **Shouvik Roy Choudhury** and Steen Hannestad, "Updated results on neutrino mass and mass hierarchy from cosmology with Planck 2018 likelihoods," *JCAP* 07 (2020) 037, arXiv:1907.12598. Citations: 188.
   Quartile: Q1, Journal Impact Factor: 6.4
3. **Shouvik Roy Choudhury** and Sandhya Choubey, "Constraining light sterile neutrino mass with the BICEP2/Keck Array 2014 B-mode polarization data," *Eur. Phys. J. C* 79 (2019) 557, arXiv:1807.10294. Citations: 30.
   Quartile: Q1, Journal Impact Factor: 4.9
2. **Shouvik Roy Choudhury** and Abhishek Naskar, "Strong Bounds on Sum of Neutrino Masses in a 12 Parameter Extended Scenario with Non-Phantom Dynamical Dark Energy ($w(z) \geq -1$)," *Eur. Phys. J. C* 79 (2019) 262, arXiv:1807.02860. Citations: 44.
   Quartile: Q1, Journal Impact Factor: 4.9
1. **Shouvik Roy Choudhury** and Sandhya Choubey, "Updated Bounds on Sum of Neutrino Masses in Various Cosmological Scenarios," *JCAP* 09 (2018) 017, arXiv:1806.10832. Citations: 152.
   Quartile: Q1, Journal Impact Factor: 6.4

## LANGUAGES, SERVICE, MENTORING, TEACHING

- **Languages:** English: Fluent; Bengali: Native; Hindi: Fluent.
- **Referee work at Journals:** Nature Astronomy, Journal of High Energy Physics (JHEP), Journal of Cosmology and Astroparticle Physics (JCAP), Monthly Notices of the Royal Astronomical Society (MNRAS), Journal of High Energy Astrophysics (JHEAP), and European Physical Journal C (EPJC).
- **Research guidance:** Mentored two summer students under the ASIAA Summer Student Program (July–August 2025) on Bayesian inference of cosmological model parameters, including dark energy, neutrinos, and inflation, using contemporary observational datasets. Work is being prepared for publication.
- **Teaching assistant:** General Relativity, IIT Bombay, Jan–May 2022; General Relativity, HRI, Aug–Dec 2017; Numerical Methods, HRI, Jan–May 2019.

## TALKS

Invited talks are marked with "Invited."

1. (Invited) Cosmology in 2026: Dynamical Dark Energy, Neutrino Masses, Hubble tension, and the Curvature, Presidency University, Kolkata, India, Sep 2026
2. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Indian Institute of Science Education and Research (IISER) Pune, Pune, India, Aug 2026.
3. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India, Aug 2026.
4. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Institute of Physics, Bhubaneswar, India, Mar 2026.
5. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Indian Institute of Science (IISc), Bengaluru, India, Mar 2026.
6. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, S. N. Bose National Centre for Basic Sciences, Kolkata, India, Dec 2025.
7. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Indian Association for the Cultivation of Science, Kolkata, India, Nov 2025.
8. (Invited) Dark Energy and Neutrino Masses circa 2025, New Frontiers in Observational Cosmology with Gravitational Waves and Cosmic Microwave Background (GW-CMB 2025), National Central University, Taoyuan, Taiwan, Nov 2025.
9. Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, TeV Particle Astrophysics (TeVPA) 2025, Valencia, Spain, Nov 2025.
10. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, National Tsing Hua University, Hsinchu, Taiwan, Sep 2025.
11. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Saha Institute of Nuclear Physics, Kolkata, India, Aug 2025.
12. Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Cosmic Connections: Bridging the Early and Late Universe, IMSc, Chennai, India, Jul–Aug 2025.
13. Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Cosmology from Home 2025, Jun 2025.
14. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, National Yang Ming Chiao Tung University, Hsinchu, Taiwan, Apr 2025.

15. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, IIT Kanpur, Kanpur, India, Apr 2025.
16. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Presidency University, Kolkata, India, Apr 2025.
17. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, National Tsing Hua University, Hsinchu, Taiwan, Feb 2025.
18. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Academia Sinica Institute of Physics, Taipei, Taiwan, Jan 2025.
19. Cosmology in an extended parameter space: new constraints with DESI BAO, Kashiwa-no-ha Dark Matter and Cosmology Symposium, Kavli IPMU, Japan, Nov 2024.
20. (Invited) Probing Particle Physics Frontiers with CMB-S4: Unveiling Cosmic Secrets, PPC 2024, IIT Hyderabad, India, Oct 2024. Talk given on behalf of CMB-S4 collaboration.
21. (Invited) Neutrino Cosmology, School of Physical Sciences, Jawaharlal Nehru University, New Delhi, India, Oct 2024.
22. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, IISc, Bengaluru, India, Sep 2024.
23. (Invited) Cosmology in an extended parameter space: new constraints on dark energy and neutrino masses with DESI BAO, Raman Research Institute, Bengaluru, India, Sep 2024.
24. Neutrino mass and mass ordering: no conclusive evidence for normal ordering, Cosmology from Home 2024, Jun 2024.
25. Massive Neutrino Self-interactions and the Hubble Tension, The Future is Flavourful, National Tsing Hua University, Hsinchu, Jun 2024.
26. Neutrino Self-interactions in Cosmology, Neutrinos from Home 2024, May 2024.
27. (Invited) Neutrinos in Cosmology, Indian Statistical Institute, Kolkata, India, Apr 2024.
28. (Invited) Neutrinos in Cosmology, ICTS-TIFR, Bengaluru, India, Apr 2024.
29. (Invited) Massive Neutrino Self-interactions and the Hubble Tension, Raman Research Institute, Bengaluru, India, Apr 2024.
30. Massive Neutrino Self-interactions and the Hubble Tension, Gravitation and Cosmology 2024, Yukawa Institute of Theoretical Physics, Kyoto, Japan, Feb 2024.
31. (Invited) Massive Neutrino Self-interactions and the Hubble Tension, 2023 NCTS Annual Theory Meeting, Taipei, Taiwan, Dec 2023.
32. (Invited) Massive Neutrino Self-interactions and the Hubble Tension, Institute of Physics, Academia Sinica, Taipei, Taiwan, Dec 2023.
33. First constraints on non-minimally coupled Natural and Coleman-Weinberg inflation in light of massive neutrino self-interactions and Planck+BICEP/Keck, Large-scale Parity Violation Workshop, ASIAA, Taipei, Taiwan, Dec 2023.
34. (Invited) Neutrinos in Cosmology, IISc, Bengaluru, India, Jul 2023.
35. (Invited) Neutrino Self-Interactions, Hubble Tension, and Inflation, HRI, Prayagraj, India, May 2023.
36. Neutrino Self-Interactions, Hubble Tension, and Inflation, Largest Cosmological Surveys and Big Data Science, ICTS-TIFR, Bengaluru, India, May 2023.
37. (Invited) Neutrino Self-Interactions, Hubble Tension, and Inflation, Majorana-Raychaudhuri Seminar, INFN & University Salerno, Italy, and PAMU, Indian Statistical Institute, Kolkata, India, Apr 2023.
38. Massive Neutrino Self-Interactions and Inflation, Less Travelled Path to the Dark Universe, ICTS-TIFR, Bengaluru, India, Mar 2023.
39. Neutrino Self-Interactions, Hubble Tension, and Inflation, CERN Neutrino Platform Pheno Week 2023, Geneva, Switzerland, Mar 2023.
40. (Invited) Neutrinos in Cosmology, ASIAA, Taipei, Taiwan, Feb 2023.
41. Massive Neutrino Interactions and Inflation, Dark Side of the Universe DSU 2022, UNSW Sydney, Australia, Dec 2022.
42. Neutrino Self-interactions, Hubble Tension, and Inflation, Cosmology from Home 2022, Jul 2022.
43. Massive Neutrino Self-interactions and The Hubble Tension, TAUP 2021, Valencia, Spain, Aug 2021.
44. Massive Neutrino Self-interactions and The Hubble Tension, Phenomenology 2021 Symposium, University of Pittsburgh, United States, May 2021.
45. Updated Constraints on the Massive Neutrino self-interactions in light of the Hubble tension, A (Hubble) Tension Headache, University of Southampton, United Kingdom, Mar 2021.
46. Strong Neutrino self-interactions and the Hubble tension, TMCC2021, Shahid Beheshti University, Feb 2021.
47. (Invited) Neutrinos in cosmology, Institute of Mathematical Sciences, Chennai, India, Jan 2021.
48. Neutrino mass and mass hierarchy from cosmology, UChicago-2020: Cosmology with CMB-S4, Aug 2020.
49. Neutrinos in cosmology: mass and mass hierarchy, CosmoGold IAP 2019, Institut Astrophysique de Paris, France, Jun 2019.
50. (Invited) Neutrino masses in cosmology, Tata Institute of Fundamental Research, Mumbai, India, Apr 2019.
51. (Invited) Constraints on Neutrino Masses from Cosmology, Aarhus University, Aarhus, Denmark, Nov 2018.

## CONFERENCES, WORKSHOPS, AND SCHOOLS ATTENDED

1. New Frontiers in Observational Cosmology with Gravitational Waves and Cosmic Microwave Background (GW-CMB 2025), Taoyuan, Taiwan, 6–7 Nov 2025.
2. TeV Particle Astrophysics (TeVPA) 2025, Valencia, Spain, 3–7 Nov 2025.
3. Cosmic Connections: Bridging the Early and Late Universe, Chennai, India, 28 Jul–1 Aug 2025.
4. Cosmology from Home 2025, 16–27 Jun 2025.
5. Kashiwa-no-ha Dark Matter and Cosmology Symposium, Kashiwa-no-ha, Japan, 28 Oct–1 Nov 2024.
6. COSMO 2024, Kyoto, Japan, 21–25 Oct 2024.
7. PPC 2024: XVII International Conference on Interconnections between Particle Physics and Cosmology, Hyderabad, India, 14–18 Oct 2024.
8. Cosmology from Home 2024, 17–28 Jun 2024.
9. The Future is Flavourful, Hsinchu, Taiwan, 4–6 Jun 2024.
10. Neutrinos from Home 2024, 23 Apr–1 May 2024.
11. Gravitation and Cosmology 2024, Kyoto, Japan, 5–9 Feb 2024.
12. 2023 NCTS Annual Theory Meeting, Taipei, Taiwan, 15–17 Dec 2023.
13. Large-scale Parity Violation Workshop, Taipei, Taiwan, 4–7 Dec 2023.
14. Largest Cosmological Surveys and Big Data Science, Bengaluru, India, 9–12 May 2023.
15. Less Travelled Path to the Dark Universe, Bengaluru, India, 13–24 Mar 2023.
16. 32nd Indian Association for General Relativity and Gravitation meeting, Kolkata, India, 19–21 Dec 2023.
17. Dark Side of the Universe DSU 2022, Sydney, Australia, 5–9 Dec 2022.
18. Cosmology from Home 2022, 4–15 Jul 2022.
19. ICTP Summer School on Cosmology 2022, Trieste, Italy, 4–15 Jul 2022.
20. Topics in Astroparticle and Underground Physics (TAUP) 2021, Valencia, Spain, 26 Aug–3 Sep 2021.
21. Phenomenology 2021 Symposium, Pittsburgh, USA, 24–26 May 2021.
22. A (Hubble) Tension Headache, Southampton, UK, 1–3 Mar 2021.
23. Tehran Meeting on Cosmology at the Crossroads 2021, Iran, 22–25 Feb 2021.
24. Physics of the Early Universe - An Online Precursor, Bengaluru, India, 31 Aug–3 Sep 2020.
25. UChicago-2020: Cosmology with CMB-S4, 10–14 Aug 2020.
26. CosmoGold IAP 2019: The golden age of cosmology from Planck to Euclid, Paris, France, 24–28 Jun 2019.
27. SANGAM @ HRI 2018, Allahabad, India, 5–9 Mar 2018.
28. Nu HoRIzons VII, Allahabad, India, 21–23 Feb 2018.
29. Post-Planck Cosmology: Enigma, Challenges and Visions, Pune, India, 9–12 Oct 2017.
30. Invisibles17 Workshop, Zurich, Switzerland, 12–16 Jun 2017.
31. Invisibles17 School, Murten, Switzerland, 6–10 Jun 2017.
32. SERC School in Theoretical High Energy Physics, Kalyani, India, 9–28 Jan 2017.
33. Nu HoRIzons VI, Allahabad, India, 17–19 Mar 2016.
34. SANGAM @ HRI 2016, Allahabad, India, 15–19 Feb 2016.

## ORGANIZATION OF CONFERENCES AND WORKSHOPS

- Organizer of the instructional workshop in particle physics, SANGAM @ HRI 2016 and 2018, HRI, Allahabad.
- Organizer of the neutrino physics conferences Nu HoRIzons VI (2016) and Nu HoRIzons VII (2018), HRI, Allahabad, India.

## ACADEMIC VISITS

| | |
|---|---|
| 23 Sep – 12 Oct 2026 | Aarhus University, Denmark with Profs. Steen Hannestad and Thomas Tram. |
| 11–23 Sep 2026 | CERN, Geneva, Switzerland, with the CERN Theory Department. |
| 23 Aug–06 Sep 2026 | Presidency University, Kolkata, India, with Prof. Ritaban Chatterjee. |
| 14–22 Aug 2026 | Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India, with Prof. Surhud More. |
| 3–10 Aug 2025 | Saha Institute of Nuclear Physics, Kolkata, India, with Prof. Pratik Majumdar. |
| 15–29 Jun 2025 | CERN, Geneva, Switzerland, with the CERN Theory Department. |
| 17–26 Apr 2025 | IIT Kanpur, Kanpur, India, with Prof. Pankaj Jain. |
| 31 Mar–16 Apr 2025 | Presidency University, Kolkata, India, with Prof. Ritaban Chatterjee. |
| 29 Sep–6 Oct 2024 | Jawaharlal Nehru University, New Delhi, India, with Prof. Poonam Mehta. |
| 22–29 Sep 2024 | Raman Research Institute, Bangalore, India, with Prof. Shiv Sethi. |
| 14–28 Apr 2024 | Indian Statistical Institute, Kolkata, India, with Prof. Supratik Pal. |
| 7–14 Apr 2024 | ICTS-TIFR, Bangalore, India, with Prof. Rajesh Gopakumar. |
| 31 Mar–7 Apr 2024 | Raman Research Institute, Bangalore, India, with Prof. Shiv Sethi. |
| 4 Jun–6 Jul 2019 | Aarhus University, Aarhus, Denmark, with Prof. Steen Hannestad. |
| 27 Oct–29 Nov 2018 | Aarhus University, Aarhus, Denmark, with Prof. Steen Hannestad. |
| 31 Aug–17 Sep 2018 | Indian Statistical Institute, Kolkata, India, with Dr. Ujjaini Alam. |

## REFERENCES


- **Prof. Steen Hannestad**, Professor, Department of Physics and Astronomy, Aarhus University, Ny Munkegade 120, DK8000 Aarhus C, Denmark. Email: steen@phys.au.dk
- **Prof. Keiichi Umetsu**, Research Fellow (equivalent to Full Professor), ASIAA, Taipei 106319, Taiwan. Email: keiichi@asiaa.sinica.edu.tw
- **Prof. Thomas Tram**, Associate Professor, Department of Physics and Astronomy, Aarhus University, Ny Munkegade 120, DK8000 Aarhus C, Denmark. Email: thomas.tram@phys.au.dk