Suchetha Cooray

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APPOINTMENTS

- **Stanford University, KIPAC Fellow** — California, USA
  Kavli Institute for Particle Astrophysics and Cosmology — *May 2024 - Present*

- **Nagoya University, Postdoctoral Researcher** — Nagoya, Japan
  Kobayashi-Maskawa Institute for the Origin of Particle and the Universe — *Apr 2024*

- **National Astronomical Observatory of Japan, JSPS Postdoctoral Fellow** — Tokyo, Japan
  Division of Science — *Apr 2023 - March 2024*

EDUCATION

- **Nagoya University, Doctor of Science** — Nagoya, Japan
  Division of Particle & Astrophysical Science, Graduate School of Science — *Oct 2020 - Mar 2023*

- **Nagoya University, Master of Science** — Nagoya, Japan
  Division of Particle & Astrophysical Science, Graduate School of Science — *Oct 2018 - Sep 2020*

- **Nagoya University, Bachelor of Science** — Nagoya, Japan
  Fundamental & Applied Physics Program, School of Science — *Oct 2014 - Sep 2018*

FELLOWSHIPS & AWARDS

- **Kavli Institute for Particle Astrophysics and Cosmology Postdoctoral Fellowship, 2024**: Stanford University & SLAC National Accelerator Laboratory
- **Barry M. Lasker Data Science Postdoctoral Fellowship, 2024 (declined)**: Space Telescope Science Institute
- **Dunlap Postdoctoral Fellowship, 2024 (declined)**: Dunlap Institute for Astronomy and Astrophysics, University of Toronto
- **Doctoral Thesis, March 2023**: Accepted without revision
- **Ph.D. Professional Toryumon 2023**: *Summa Cum Laude*
- **JSPS Research Fellow (DC1), Apr 2021 - Mar 2024**: Japan Society for Promotion of Science grant number JP21J23611. Research budget: ¥2,200,000. Stipend of ¥2,400,000 per annum.
- **Ph.D. Professional Toryumon, Oct 2020 - Mar 2023**: Program for Leading Graduate Schools, Nagoya University. Research budget: ¥700,000. Stipend of ¥2,400,000 per annum.
- **Japan Student Services Organization Scholarship, Oct 2020**: ¥1,584,000

SCIENTIFIC COLLABORATIONS

- Roman Galaxy Redshift Survey Project Infrastructure Team
- Roman Science Collaboration Cosmology Science Group
- Roman Science Collaboration Galaxy and Quasar Science Group
- Subaru PFS Cosmology Mock Group
- UniverseTBD
- CO Multi-line Imaging of Nearby Galaxies (COMING)
- SKA-Japan Galaxy Evolution Science Working Group
- SKA-Japan Faraday Tomography Engineering Working Group
- Cosmology and Astrophysics with MachinE Learning Simulations (CAMELS)

Scientific Contributions

- Referee for ApJ and A&A
- Author of CRAFT, UniverseMachine DR2, and SEDUniverseMachine codes.
- Maintainer of stellar population synthesis libraries for Differentiable Stellar Population Synthesis (link)
- Organizer of the Astro Students' Gathering at Nagoya University and KIPAC social gathering at Stanford University.

Teaching

- Python Data Science Tutorial, 9th East Asia School and Workshop on Laboratory, Space, and Astrophysical Plasmas (50+ international participants, master's to postdoctoral level)
- Teaching Assistant, Physics Laboratory 1, Fall 2021, Nagoya University
- Teaching Assistant, Physics Laboratory 1, Fall 2020, Nagoya University
- Teaching Assistant, Physics Laboratory 2, Spring 2020, Nagoya University
- Teaching Assistant, Physics Laboratory 2, Spring 2019, Nagoya University
- Teaching Assistant, Fundamental Physics Tutorial 2a, Spring 2019, Nagoya University
- Teaching Assistant, Fundamental Physics Tutorial 1a, Fall 2018, Nagoya University

Technical Expertise

- Languages: English (bilingual), Japanese (professional working proficiency), Sinhala (bilingual)
- Programming: Python, C, Fortran, R, IDL, shell scripting
- Frameworks: PyTorch, JAX, NumPy, SciPy, scikit-learn, Astropy
- HPC & Computing: Supercomputing facilities, parallel computing, GPU programming, version control
- Data Analysis: Simulation-based inference, Bayesian statistics

References (Alphabetical Order)

Tom Abel, Professor, Stanford University | tabel@slac.stanford.edu

Peter Behroozi, Associate Professor, University of Arizona | behroozi@arizona.edu

Andrew P. Hearin, Physicist, Argonne National Laboratory | ahearin@anl.gov

Shu-ichiro Inutsuka, Professor, Nagoya University | inutsuka.shu-ichiro.i2@f.mail.nagoya-u.ac.jp

Naoshi Sugiyama, President, Nagoya University | naoshi@nagoya-u.jp

Tsutomu T. Takeuchi, Associate Professor, Nagoya University | tsutomu.takeuchi.ttt@gmail.com

Risa Wechsler, Professor, Stanford University | rwechsler@stanford.edu