Kevin F.S. Pardede

Employment

NASA Jet Propulsion Laboratory (JPL) — Pasadena
Postdoctoral Researcher — Nov., 2025 – Current

Istituto Nazionale di Fisica Nucleare (INFN) Parma — Parma
Postdoctoral Researcher — Nov., 2023 – Oct., 2025

Education

Scuola Internazionale Superiore di Studi Avanzati (SISSA) — Trieste
Ph.D in Astroparticle Physics — Oct., 2019 – Sept., 2023
Thesis: 'Toward Precision Cosmology with the Galaxy Bispectrum'
Advisor: Prof. Emiliano Sefusatti

International Centre for Theoretical Physics (ICTP) — Trieste
Postgraduate Diploma in High Energy, Cosmology and Astroparticle Physics — Sept., 2018 – Aug., 2019

Institut Teknologi Bandung (ITB) — Bandung
M.Sc in Physics — Aug., 2017 – Jul., 2018

Institut Teknologi Bandung (ITB) — Bandung
B.Sc in Physics — Aug., 2013 – Jul., 2017

Professional activities

- **Member of *Euclid* Consortium** — 2020 –
- **Journal referee**: Physical Review D (2023 –), The AstroPhysical Journal (2024 –), JCAP (2025 –)
- **Local organizer**: New Physics from Galaxy Clustering III (Parma, 4–8 November 2024)

Teaching experiences

- **Lecturer** at Summer School on Astrophysics, Petnica Summer Institute — 2023
  Course: Large-scale structure
- **Co-supervision and mentor** (2 bachelor students and 1 master student)

Scholarships and Awards

- Joint International ICTP/SISSA PhD Programme in Physics Fellowship (SISSA, Trieste) — 2019 – 2023
- Postgraduate Diploma Programme Scholarship (ICTP, Trieste) — 2018 – 2019
- Fast-track Scholarship for Master Program (ITB, Bandung) — 2017 – 2018
- Best Undergraduate in the Physics Department (ITB, Bandung) — 2016

List of Publications

1. M. Guidi *et al.* (incl. K. Pardede), "Euclid preparation. Full-shape modelling of 2-point and 3-point correlation functions in real space", June 2025. arXiv: 2506.22257 [astro-ph.CO].
2. M. S. Cagliari, M. Barberi-Squarotti, K. Pardede, E. Castorina, and G. D'Amico, "Bispectrum constraints on Primordial non-Gaussianities with the eBOSS DR16 quasars", JCAP, vol. 07, p. 043, 2025. arXiv: 2502.14758 [astro-ph.CO].
3. F. J. Castander *et al.* (incl. K. Pardede), "Euclid. V. The Flagship galaxy mock catalogue: a comprehensive simulation for the Euclid mission", Astron. Astrophys., vol. 697, A5, 2025. arXiv: 2405.13495 [astro-ph.CO].
4. G. Rácz *et al.* (incl. K. Pardede), "Euclid preparation. Simulations and nonlinearities beyond ΛCDM. 2. Results from non-standard simulations", Astron. Astrophys., vol. 695, A232, 2025. arXiv: 2409.03523 [astro-ph.CO].
5. M. Marinucci, K. Pardede, and M. Pietroni, "Bootstrapping Lagrangian perturbation theory for the large scale structure", JCAP, vol. 10, p. 051, 2024. arXiv: 2405.08413 [astro-ph.CO].
6. A. Pezzotta *et al.* (incl. K. Pardede), "Euclid preparation. XLI. Galaxy power spectrum modelling in real space", Astron. Astrophys., vol. 687, A216, 2024. arXiv: 2312.00679 [astro-ph.CO].
7. K. Pardede, E. Di Dio, and E. Castorina, "Wide-angle effects in the galaxy bispectrum", JCAP, vol. 09, p. 030, 2023. arXiv: 2302.12789 [astro-ph.CO].
8. F. Rizzo, C. Moretti, K. Pardede, A. Eggemeier, A. Oddo, E. Sefusatti, C. Porciani, and P. Monaco, "The halo bispectrum multipoles in redshift space", JCAP, vol. 01, p. 031, 2023. arXiv: 2204.13628 [astro-ph.CO].
9. K. Pardede, F. Rizzo, M. Biagetti, E. Castorina, E. Sefusatti, and P. Monaco, "Bispectrum-window convolution via Hankel transform", JCAP, vol. 10, p. 066, 2022. arXiv: 2203.04174 [astro-ph.CO].
10. K. Pardede, A. Suroso, and F. P. Zen, "Nonlinear matter terms in general scalar–tensor braneworld cosmology", Int. J. Mod. Phys. D, vol. 28, no. 11, p. 1950138, 2019. arXiv: 1908.06574 [gr-qc].

Overview paper

1. Y. Mellier *et al.* (incl. K. Pardede), "Euclid. I. Overview of the Euclid mission", May 2024. arXiv: 2405.13491 [astro-ph.CO].

Conference proceeding

1. K. Pardede, A. Suroso, and F. P. Zen, "Modified Friedmann equations in braneworld scenario", J. Phys. Conf. Ser., vol. 988, no. 1, p. 012 007, 201

Selected talks

1. Tokyo, Japan. *Beyond two-point statistics meets survey systematics.* September 2025.
2. Padova, Italy. *Universum VI.* April 2025.
3. Parma, Italy. *New Physics from Galaxy Clustering III.* November 2024.
4. Split, Croatia. *Cosmology in the Adriatic – From PT to AI.* July 2024.
5. Trieste, Italy. *New Physics from Galaxy Clustering II.* November 2023.
6. Orsay, France. *Paris-Saclay Astroparticle Symposium 2022.* November 2022.
7. Trieste, Italy. *IFPU Focus Week: Controlling systematics in the Euclid spectroscopic sample.* September 2022.
8. Madrid, Spain. *A Cosmic Window to Fundamental Physics: PNG and beyond.* September 2022.
9. Vipolže, Slovenia. *Berkeley Center of Cosmological Physics (BCCP) workshop: Vipolže 2022.* July 2022.
10. Bandung, Indonesia. *13th Conference on Theoretical Physics and Nonlinear Phenomena.* August 2017.

Miscellaneous

- **Programming languages**: `Python`, `Mathematica`, `C/C++`
- **Codes**: `PBJ` (**P**ower spectrum and **B**ispectrum **J**oint analysis): C. Moretti, et al. (incl. K. Pardede)

Version: October 27, 2025