Pranjal Ralegankar

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Education

Doctor of Philosophy | ***Particle Physics and Cosmology*** — Aug. 2017 – May 2022 (expected)
University of Illinois at Urbana Champaign
Advisors: Jessie Shelton and Peter Adshead

Master of Science | ***Quantum fields and fundamental forces*** — Oct. 2016 – Sep. 2017
Imperial College London
Dissertation Advisor: Carlo Contaldi
Qualification: Distinction

Bachelor of Technology | ***Mechanical Engineering*** | ***Minor in Physics*** — Jul. 2012 – May 2016
Indian Institute of Technology Bombay

Honors and Awards

Dissertation completion Fellowship, UIUC — 2021-2022
18 students selected across all departments for full scholarship
to support last year of PhD.

Mavis Future Faculty Fellowship, UIUC — 2020-2021
Provides a series of workshops, seminars and activities to
prepare fellows for an academic career.

Imperial India Foundation Fellowship — 2016-2017
2 students selected from all Indian applicants for full Scholarship
to pursue Masters at Imperial College London.

DAAD WISE scholarship — 2015
Scholarship for pursuing summer research internship in Germany.

Publications

Author listing in alphabetical order

*Adrienne L. Erickcek, Pranjal Ralegankar, and Jessie Shelton. "Cannibalism's lingering imprint on the matter power spectrum", arXiv:2106.09041.

*Adrienne L. Erickcek, Pranjal Ralegankar, and Jessie Shelton. "Cannibal domination and the matter power spectrum", Phys. Rev. D 103, 103508 (2021), arXiv:2008.04311.

*Peter Adshead, Gilbert Holder, and Pranjal Ralegankar. "BBN constraints on dark radiation isocurvature", Journal of Cosmology and Astrophysics JCAP09(2020)016, arXiv:2006.01165.

*Peter Adshead, Pranjal Ralegankar, and Jessie Shelton. "Reheating in two-sector cosmology", Journal of High Energy Physics JHEP08(2019)151, arXiv:1906.02755.

Jatan Buch, Pranjal Ralegankar, and Vikram Rentala. "Late decaying 2-component dark matter scenario as an explanation of the AMS-02 positron excess", Journal of Cosmology and Astrophysics JCAP10(2017)028, arXiv:1609.04821.

* denotes papers with primary authorship.

Presentations

High energy physics seminar, IIT Bombay	Aug. 2021
Poster presentation (virtual), COSMO conference	Aug. 2021
High energy phenomenology seminar (virtual), IACS Kolkata	21st July 2021
Cosmology from Home conference (virtual)	25th Aug. 2020
Theoretical Advanced Study Institute (TASI) student talk (virtual)	16th Jun. 2020
Graduate student seminar, UIUC	26th Sep. 2019
High energy phenomenology seminar, UIUC	26th Sep. 2018

Conferences and Summer schools

COSMO conference 2021 (virtual)	Aug. 2021
Cosmology from Home conference (virtual)	Sep. 2020
Theoretical Advanced Study Institute (TASI) (virtual)	June 2020

Teaching Experience

Teaching assistant for Particle Physics (graduate level)	Spring 2020, Spring 2021
Teaching assistant for Particle physics of the early universe (graduate level)	Fall 2020
Teaching assistant for Quantum Physics (senior level)	Fall 2017, Spring 2018, Fall 2018
Teaching assistant for Modern physics (freshman level)	Spring 2019, Fall 2019

Outreach

Illinois GPM (Graduate Peer Mentoring) mentor	Aug. 2018 – May 2020
Illinois GPS (Guidance for Physics Students) mentor	Jan. 2018 – May 2019