

Pratik J. Gandhi

pjgandhi@ucdavis.edu | ORCID: 0000-0003-0965-605X
Department of Physics & Astronomy, University of California - Davis

EDUCATION

Ph.D. in Physics (Astrophysics) – University of California, Davis	Sep '18 – Present
B.S. in Astrophysics – Yale University	Aug '14 - May '18

RESEARCH

Graduate Student Researcher | UC Davis

Advisor: Prof. Andrew Wetzel	Sep '18 - Present
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- Characterising the near-far probe of reionization using the FIRE simulations

Advisor: Prof. Maruša Bradač	Sep '18 - Present
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- Strong and weak lensing analysis of Frontier Fields galaxy cluster Abell S1063

Summer Undergraduate Researcher | U. of Copenhagen

Advisor: Dr. Claudio Grillo	Summer '16
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- Gravitational lens modelling Frontier Fields galaxy cluster MACS J1149.5+2223

Undergraduate Researcher | Yale University

Advisor: Prof. C. Megan Urry	Aug '17 - May '18
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- Modelling the X-ray AGN luminosity function: a multi-survey approach

Advisor: Prof. Marla Geha	Summer '17
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- Finding ultra-faint dwarf galaxies: predictions for the WFIRST mission

Advisor: Prof. Frank van den Bosch	Aug '16 - May '17
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- Modelling the dynamics of dark matter subhalos in a host galaxy potential

PUBLICATIONS

[1] **Gandhi, P. J.**, Wetzel, A., Hopkins, P. F., Shappee, B. J., Wheeler, C., 2022, “Exploring metallicity-dependent rates of Type Ia supernovae and their impact on galaxy formation”, MNRAS, submitted.

[2] Lemaux, B. C., Fuller, S., Bradač, M., Pentericci, L., Hoag, A., et al. (including **Gandhi, P. J.**), “The size and pervasiveness of ly-UV spatial offsets in star-forming galaxies at $z \sim 6$ ”, arXiv:2007.01310, MNRAS, 504, 3.

[3] Pelliccia, D., Strait, V., Lemaux, B. C., Bradač, M., Coe, D., et al. (including **Gandhi, P. J.**), “RELICS-DP7: Spectroscopic confirmation of a dichromatic primeval galaxy at $z \sim 7$ ”, arXiv:2011.08857, ApJ, 908, 2.

AWARDS & FELLOWSHIPS

APS WiP Grant (on behalf of UCD Diversity & Inclusion in Phys/Astro)	Jan '21 - Jan '23
Graduate Program Research Fellowship (UC Davis)	Jan '21 - Apr '21
Paul Brady & Charles Soderquist Graduate Fellowship (UC Davis)	Sep '18 - Aug '19
Pierson College Mellon Forum Award (Yale U.)	Aug '17 - May '18
Tetelman Fellowship for Summer International Research (Yale U.)	Summer 2016
Pierson College Richter Fellowship (Yale U.)	Summer 2016
Freshman Summer Research Fellowship (Yale U.)	Summer 2015

PRESENTATIONS

<i>Invited science talk</i> , FIRE collaboration seminar	Dec '21
<i>Conference talk</i> , SAZERAC SIP: Galaxy formation near and far	Dec '21
<i>Conference talk</i> , ISM 2021: Structures, Scales, and Star formation	May '21
<i>Invited public talk</i> , Mt. Diablo Astronomical Society	July '20
<i>Senior thesis talk</i> , Yale Mellon Forum	Feb '18
<i>Poster presentation</i> , 231st AAS (Winter) Meeting	Jan '18
<i>Poster presentation</i> , Ivy League Undergraduate Research Symposium	Nov '17
<i>Research talk</i> , Yale Summer Astronomy Symposium	Sep '16

TEACHING

Lead Teaching Assistant | UC Davis

- Galactic & Extragalactic Astrophysics Winter '22
- Undergraduate Astronomy Lab Spring '19
- Introduction to Astronomy Fall '19

Teaching Assistant | UC Davis

- Physics for Life Sciences II Winter '19, Summer '19, Winter '20, Spring
- Physics for Life Sciences I Fall '18

Volunteer | Sacramento School District Astronomy Olympiad Jan '19, Jan '20

OUTREACH

<i>Writer & DEI Committee co-chair</i> , Astrobites blog funded by AAS	Dec '20 - Present
<i>Organizer</i> , Astronomy on Tap, Davis (science cafe)	May '20 - Present

SERVICE

<i>Chair</i> , UCD Diversity & Inclusion in Physics & Astronomy	Sep '21 - Present
<i>Graduate student rep</i> , UCD Physics/Astronomy Graduate Admissions	Sep '21 - Present
<i>Graduate student rep</i> , UCD Physics/Astronomy Climate Survey	Aug '20 - Apr '21
<i>Member</i> , UCD Diversity & Inclusion in Physics & Astronomy	Sep '19 - Aug '21

PROGRAMMING

Languages: python, C, Java, Unix/Linux/MacOS/Windows, slurm

Software/packages: astropy, MPI, OpenMP, Gizmo, Lenstool, SWUnited, DS9