

Pratik J. Gandhi

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Department of Physics & Astronomy, University of California - Davis

EDUCATION

Ph.D. in Physics (Astrophysics) – University of California, Davis	Sep '18 – Present
M.S. in Physics (Astrophysics) – University of California, Davis	Sep '18 – June '20
B.S. in Astrophysics – Yale University	Aug '14 – May '18

RESEARCH

Graduate Student Researcher | UC Davis

Advisor: Prof. Andrew Wetzel Sep '18 - Present

- Characterising the near-far probe of reionization using the FIRE simulations

Advisor: Prof. Maruša Bradač Sep '18 - Present

- Strong and weak lensing analysis of Frontier Fields galaxy cluster Abell S1063

Summer Undergraduate Researcher | U. of Copenhagen

Advisor: Dr. Claudio Grillo Summer '16

- Gravitational lens modelling Frontier Fields galaxy cluster MACS J1149.5+2223

Undergraduate Researcher | Yale University

Advisor: Prof. C. Megan Urry Aug '17 - May '18

- Modelling the X-ray AGN luminosity function: a multi-survey approach

Advisor: Prof. Marla Geha Summer '17

- Finding ultra-faint dwarf galaxies: predictions for the WFIRST mission

Advisor: Prof. Frank van den Bosch Aug '16 - May '17

- 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

Frontera Computational Science Fellowship TACC ¹	Jun '22 - May '23
APS WiP Grant for 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

<i>Lead Teaching Assistant</i> UC Davis	
• Galactic & Extragalactic Astrophysics	Winter '22
• Undergraduate Astronomy Lab	Spring '19
• Introduction to Astronomy	Fall '19
<i>Teaching Assistant</i> UC Davis	
• Physics for Life Sciences II	Winter '19, Summer '19, Winter '20, Spring
• Physics for Life Sciences I	Fall '18
<i>Volunteer</i> 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

¹Texas Advanced Computing Center