VEDANT CHANDRA

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Professional Appointments

Graduate Student, Center for Astrophysics | Harvard & Smithsonian — September, 2021 onwards

Research Intern, Space Telescope Science Institute — June, 2020–May, 2021

Research Assistant, Johns Hopkins University — November, 2018–May, 2021

Education

Harvard University — September, 2021 onwards

- A.M., Ph.D. Astronomy & Astrophysics (intended)

Johns Hopkins University — 2017–present

- B.S. Physics & Applied Mathematics, minor in Space Sciences

Awards & Honors

James Mills Peirce Fellowship, Harvard University — 2021

Chambliss Medal, American Astronomical Society — 2021

$\Sigma \Pi \Sigma$ — 2020

Summer Student Fellowship, JHU IDIES — 2020

Provost's Undergraduate Research Award, JHU — 2019

Dean's Undergraduate Research Award, JHU — 2019

Dean's List 7/7 Semesters, JHU — 2017-2020

Grant Allocations

STScI JWST Discretionary Fund ($42,740) — 2020

- "The Initial Mass Function of Resolved Stellar Populations in the Local Group"
- PI: Mario Gennaro, Co-I: Vedant Chandra

Various Undergraduate Research Grants ($13,500) — 2019-2020

- PI: Vedant Chandra, Co-Is: Nadia Zakamska, Hsiang-Chih Hwang, Kevin C. Schlaufman

Selected Press Coverage

ScienceNews Magazine — August, 2020

- "Paradoxically, white dwarf stars shrink as they gain mass"

JHU Press Release — July, 2020

- "Johns Hopkins astrophysicists observe long-theorized quantum phenomena"

Invited Talks

Summer Symposium, Space Telescope Science Institute — July, 2020

- "Fitting the Stellar Birth Function of Resolved Stellar Populations with Approximate Bayesian Computation", 19:30 onwards.

Summer Symposium, Space Telescope Science Institute — August, 2019

- "White Dwarf Spectroscopy with Machine Learning", 21:00 onwards.

Annual Symposium, Maryland Space Grant Consortium July, 2019
- "White Dwarf Astronomy with Machine Learning".

Poster Presentations

237th Meeting of the American Astronomical Society January, 2021
- "Resolved Stellar Populations in the Era of JWST and Roman", iPoster

IDIES and MINDS Annual Symposium October, 2020
- "Hunting for Metal-Poor Main-Sequence Stars in SDSS", awarded Best Poster.

NASA HRP Investigators Workshop January, 2020
- "Multivariate Analysis of Human Health and Performance in Spaceflight Simulation"

IDIES Annual Symposium October, 2019
- "Characterizing White Dwarf Spectra with Neural Networks"

JHU DREAMS Conference April, 2019
- "Hunting for Binary White Dwarf Stars with Spectroscopic Analysis"

Observatory Allocations

As Principal Investigator:

Gemini Observatory, GMOS, 4.5 hours 2021
- "Double White Dwarf Binaries from SDSS-V"

Apache Point Observatory 3.5 m, DIS, 23 hours 2021
- "Peculiar Hypervelocity Stars from Gaia EDR3"

Apache Point Observatory 3.5 m, DIS, 10 hours 2020
- "Time-resolved Radial Velocities of Massive White Dwarfs in Close Binary Systems"

As Co-Investigator (totals):

Gemini Observatory, GMOS, 8 hours 2020

Apache Point Observatory 3.5 m, DIS, 10 hours 2020

Undergraduate Research Mentorship

John Magardino (JHU Physics & Astronomy) Summer, 2020

Felix Yu (JHU Physics & Astronomy) Summer, 2020

Rebecca Mosier (JHU Human Spaceflight Lab) 2019-2020

Jessica Nguyen (JHU Human Spaceflight Lab) 2019-2020

Teaching

Teaching Assistant, 360.133 Great Books at Hopkins, JHU Fall, 2018

Teaching Assistant, 171.101 General Physics I, JHU Summer, 2018

Professional Service

Member, Sloan Digital Sky Survey V 2020-Present

Outreach

Head of Logistics, JHU MedHacks Hackathon	2018-2019
Volunteer, JHU Physics Spring Fair	2018-2019
Contributing Writer, space.stackexchange.com	2014-2018

References

Professor Nadia L. Zakamska, Johns Hopkins University	(zakamska@jhu.edu)
Dr Mario Gennaro, Space Telescope Science Institute	(gennaro@stsci.edu)
Professor Kevin C. Schlaufman, Johns Hopkins University	(kschlaufman@jhu.edu)
Professor Charlie Conroy, Harvard University	(cconroy@cfa.harvard.edu)

Peer-Reviewed Publications

3. **Chandra, V.** & Schlaufman, K.C. 2021, "Searching for Low-mass Population III Stars Disguised as White Dwarfs", *The Astronomical Journal, 161, 197*

2. **Chandra, V.**, Hwang, H.-C., Zakamska, N.L. & Cheng, S. 2020, "A Gravitational Redshift Measurement of the White Dwarf Mass–Radius Relation", *The Astrophysical Journal, 899, 146*

1. **Chandra, V.**, Hwang, H.-C., Zakamska, N.L. & Budavari, T. 2020, "Computational Tools for the Spectroscopic Analysis of White Dwarfs", *Monthly Notices of the Royal Astronomical Society, 497, 2688*

Co-Authored Publications

1. Petrosky, E., Hwang, H.C., Zakamska, N.L., **Chandra, V.** & Hill, M. 2021, "Variability, periodicity and contact binaries in WISE", *Monthly Notices of the Royal Astronomical Society, 503, 3975*

Other Published Works

astrobites September, 2020

- "Measuring the White Dwarf Mass-Radius Relation using Thousands of Stars"