

VEDANT CHANDRA

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Professional Appointments

Graduate Student, Center for Astrophysics Harvard & Smithsonian	September, 2021–Present
Research Intern, Space Telescope Science Institute	June, 2020–May, 2021
Research Assistant, Johns Hopkins University	November, 2018–May, 2021

Education

Harvard University	2021–Present
• A.M., Ph.D. Astronomy & Astrophysics (intended)	
Johns Hopkins University	2017–2021
• 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	2017-2021

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. Schlafman	

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)	2021
• “A Short-period Double White Dwarf Binary from SDSS-V”, 3 hours.	
• “Monitoring a Dynamic Gaseous Debris Disk around a White Dwarf”, 2 hours.	
• “Double White Dwarf Binaries from SDSS-V”, 5 hours.	

Apache Point Observatory 3.5 m (DIS, ARCTIC)	2020-2021
• “Monitoring Circumstellar Debris around a Runaway SN Ia Donor”, 12 hours.	
• “Peculiar Hypervelocity Stars from Gaia EDR3”, 23 hours.	
• “Time-resolved Radial Velocities of Massive White Dwarfs in Close Binary Systems”, 10 hours.	

As Co-Investigator/Observer:

Apache Point Observatory 3.5 m, 25 hours	2020-2021
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Neils Gehrels Swift Observatory, 1 hour	2021
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Gemini Observatory, 8 hours	2020
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Undergraduate Research Mentorship

John Magardino (JHU Physics & Astronomy)	Summer, 2020
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Felix Yu (JHU Physics & Astronomy)	Summer, 2020
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Rebecca Mosier (JHU Human Spaceflight Lab)	2019-2020
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Jessica Nguyen (JHU Human Spaceflight Lab)	2019-2020
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Teaching

Teaching Assistant, 360.133 Great Books at Hopkins, JHU	Fall, 2018
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Teaching Assistant, 171.101 General Physics I, JHU	Summer, 2018
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Professional Service

Member, Sloan Digital Sky Survey V	2020-Present
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Outreach

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

Professor Charlie Conroy, Harvard University	(cconroy@cfa.harvard.edu)
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Professor Nadia L. Zakamska, Johns Hopkins University	(zakamska@jhu.edu)
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Dr Mario Gennaro, Space Telescope Science Institute	(gennaro@stsci.edu)
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Peer-Reviewed Publications

4. **Vedant Chandra**, Hsiang-Chih Hwang, Nadia L. Zakamska, Boris T. Gänsicke, J.J. Hermes, Axel Schwöpe, Carles Badenes, Gagik Tovmassian, Evan B. Bauer, Dan Maoz, Matthias R. Schreiber, Odette F. Toloza, Keith P. Inight, Hans-Walter Rix & Warren R. Brown (2021)
“A 99-minute Double-lined White Dwarf Binary from SDSS-V”
The Astrophysical Journal, *in press*
3. **Vedant Chandra** & Kevin C. Schlaufman (2021)
“Searching for Low-mass Population III Stars Disguised as White Dwarfs”
The Astronomical Journal, *161*, 197
2. **Vedant Chandra**, Hsiang-Chih Hwang, Nadia L. Zakamska & Sihao Cheng (2020)
“A Gravitational Redshift Measurement of the White Dwarf Mass–Radius Relation”
The Astrophysical Journal, *899*, 146
1. **Vedant Chandra**, Hsiang-Chih Hwang, Nadia L. Zakamska & Tamás Budavári (2020)
“Computational Tools for the Spectroscopic Analysis of White Dwarfs”
Monthly Notices of the Royal Astronomical Society, *497*, 2688

Co-Authored Publications

1. Evan Petrosky, Hsiang-Chih Hwang, Nadia L. Zakamska, **Vedant Chandra** & Matthew Hill (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”