

Benjamin R. Roulston

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| Predoctoral Fellow | Ph.D. Candidate | Phone: (518) 928-0062 |
| High Energy Astrophysics Division | Department of Astronomy | E-mail: broulston@cfa.harvard.edu |
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| Cambridge, MA 02138 | Boston, MA 02215 | |

Education

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| Ph.D., Astronomy | Anticipated 08/2021 |
| Boston University, Boston, MA | |
| Thesis Title: "Forged by Giants: Understanding the Dwarf Carbon Stars" | |
| Thesis Advisors: Dr. Paul Green & Prof. JJ Hermes | |
| M.A., Astronomy | 05/2018 |
| Boston University, Boston, MA | |
| B.S. (Honors), Physics | 05/2016 |
| Clarkson University, Potsdam, NY | |

Research Appointments

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| Predoctoral Fellowship | 01/2019 – Present |
| Smithsonian Astrophysical Observatory, Advisor: Dr. Paul Green | |
| Visting Student | 07/2018 – 12/2018 |
| Smithsonian Astrophysical Observatory, Advisor: Dr. Paul Green | |
| Graduate Research Assistant | 05/2017 – 09/2017 |
| Boston University Center for Space Physics, Advisor: Prof. Wen Li | |
| Undergraduate Researcher | 05/2014 – 06/2016 |
| Clarkson University, Advisor: Prof. Joshua Thomas | |

Teaching Appointments

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| Teaching Fellow, Boston University | |
| AS203 Principles of Astronomy II, for astronomy majors | Spring 2018 |
| AS202 Principles of Astronomy I, for astronomy majors | Fall 2017 |
| AS101 The Solar System, for non-science majors | Spring 2017 |
| AS202 Principles of Astronomy I, for astronomy majors | Fall 2016 |
| Teaching Assistant, Clarkson University | |
| PH132 Physics II, for physical science majors | Spring 2016 |
| PH131 Physics I, for physical science majors | Fall 2015 |
| PH131 Physics I, for physical science majors | Spring 2015 |

Awards & Honors

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| SDSS Travel Grant | June 2019 |
| <i>SDSS 2019 Collaboration Meeting, Ensenada, Mexico</i> | |
| Clarkson University Physics Department Outstanding Senior Award | May 2016 |

Awarded Telescope Proposals

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| 2020, 100ks, Cycle 22, <i>Chandra X-ray Telescope</i> : ACIS-S | [Co-I, Program 22200008] |
| 2020, 2 orbits, Cycle 28, <i>Hubble Space Telescope</i> : WFC3, ACS | [Co-I, Program 16392] |
| 2020, 3.0 nights FLWO 1.2m, KeplerCam Imaging | [PI 2020C] |
| 2020, 0.5 nights 6.5m MMT, Optical Spectroscopy | [PI 2020B] |
| 2020, 3.0 nights 6.5m Magellan Telescopes, Optical Spectroscopy | [PI 2020B] |
| 2020, 5.0 nights FLWO 1.2m, KeplerCam Imaging | [PI 2020B] |
| 2020, 0.5 nights FLWO 1.2m, KeplerCam Imaging | [PI-DDT 2020A] |
| 2020, 0.5 nights 6.5m MMT, Optical Spectroscopy | [PI-DDT 2020A] |
| 2019, 121.5ks, Cycle 21, <i>Chandra X-ray Telescope</i> : ACIS-S | [Co-I, Program 21200072] |
| 2019, 1.5 nights 6.5m MMT, Optical Spectroscopy | [PI 2019C] |
| 2019, 1.5 nights 6.5m Magellan Telescopes, Optical Spectroscopy | [PI 2019B] |
| 2019, 1.5 nights 6.5m MMT, Optical Spectroscopy | [PI 2019B] |
| 2019, 0.5 nights 6.5m MMT, Optical Spectroscopy | [PI 2019A] |
| 2017, 2.0 nights 1.8m Perkins Telescope, Infrared Spectroscopy | [11/2017] |
| 2015, 2.0 nights 1.6m Mont Mégantic Observatory, Optical Spectroscopy | [07/2015] |

Invited Talks and Seminars

1. “The Time-Domain Spectroscopic Survey”
SDSS 2019 Collaboration Meeting, Ensenada, Mexico
June 24 — June 28, 2019

Contributed Talks

4. “Detection and Spectral Typing of Binaries from Optical Spectra with PyHammerSB2”
AAS235, Honolulu, USA
January 4 – January 8, 2020
3. “Stellar Variables in the Time-Domain Spectroscopic Survey”
SDSS 2019 Collaboration Meeting, Ensenada, Mexico
June 24 — June 28, 2019
2. “The Time-Domain Spectroscopic Survey: Orbital Separations of Dwarf Carbon Stars”
AAS233, Seattle, USA
January 6 – January 10, 2019
1. “The Time-Domain Spectroscopic Survey: Radial Velocity Variability in Dwarf Carbon Stars”
Cool Stars 20, Boston, USA
July 29 – August 3, 2018

First-author Refereed Publications

2. **Roulston, Benjamin R.**; Green, Paul J.; Kesseli, Aurora Y.; 2020, ApJS, 249, 34, *Classifying Single Stars and Spectroscopic Binaries Using Optical Stellar Templates*
1. **Roulston, Benjamin R.**; Green, Paul J.; Ruan, John J.; MacLeod, Chelsea L.; Anderson, Scott F.; Badenes, Carles; Brownstein, Joel R.; Schneider, Donald P.; Stassun, Keivan G.; 2019, ApJ, 877, 44, *The Time-Domain Spectroscopic Survey: Radial Velocity Variability in Dwarf Carbon Stars*

Other Refereed Publications

1. Green, Paul J.; Montez, Rodolfo; Mazzoni, Fernando; Filippazzo, Joseph; Anderson, Scott F.; De Marco, Orsola; Drake, Jeremy J.; Farihi, Jay; Frank, Adam; Kastner, Joel H.; Miszalski, Brent; **Roulston, Benjamin R.**; 2019, ApJ, 881, 49, *A Chandra Study: Are Dwarf Carbon Stars Spun Up and Rejuvenated by Mass Transfer?*

Professional Service

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| AAS Congressional Visit Day Participant | 2020 |
| LOC Member Cool Stars 20 | 2018 |

Outreach

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| ADA Job Shadow, Center for Astrophysics Harvard & Smithsonian | October 2020 |
| Python Hour with SAO Latino Initiative Program | Summer 2019, Summer 2020 |
| Boston University Center for Space Physics Science for Kids Day | June 2018 |
| Boston University Observatory Public Nights | Fall 2016 – Present |
| Clarkson University Roller Coaster Camp, Counselor | Summer 2014, Summer 2015 |
| Clarkson University Observatory Public Nights | Fall 2014 – Spring 2016 |

Professional References

Dr. Paul J. Green

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Prof. JJ Hermes

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Prof. Scott F. Anderson

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