


HODARI-SADIKI JAMES

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Department of Physics and Astronomy, Georgia State University

25 Park Place, 605 ◊ Atlanta, GA 30302

RESEARCH INTERESTS

Stellar Astrophysics, Stellar Spectroscopy, Ages & Properties of Late Type Stars, and Astrobiology

EDUCATION

Ph.D. in Astronomy <i>Georgia State University</i>	<i>Spring 2023 (Expected)</i> Atlanta, GA
M.S. in Physics with Astronomy Concentration <i>Georgia State University</i>	<i>2020</i> Atlanta, GA
M.S. in Biomedical Engineering <i>University of Cincinnati</i>	<i>2014</i> Cincinnati, OH
B.A. in Physics minor Biology <i>Berea College</i>	<i>2012</i> Berea, KY

WORK EXPERIENCE

CHIRON Data Manager, CTIO/SMARTS 1.5m Georgia State University	<i>Dec 2018 - Present</i> Atlanta, GA
Graduate Teaching/Research Assistant Georgia State University	<i>Aug 2017 - Present</i> Atlanta, GA
GRE and SAT Instructor Educational Testing Consultants/University of Georgia	<i>Jan 2019 - Jan 2020</i> Athens, GA
Lab Technologist Labsolutions	<i>Mar 2017 - Aug 2017</i> Atlanta, GA
Biomedical Engineer Castle Medical	<i>Mar 2015 - Dec 2016</i> Smyrna, GA
Graduate Teaching/Research Assistant University of Cincinnati	<i>Aug 2012 - Dec 2014</i> Cincinnati, OH
Physics Teaching Assistant Berea College	<i>Aug 2009 - May 2012</i> Berea, KY

GRANTS, SCHOLARSHIPS AND AWARDS

SREB Dissertation Year Award (\$20,000) Southern Regional Education Board	2022-2023
Provost's Dissertation Fellowship (\$15,000) Georgia State University	2022-2023
Beth Brown Memorial Award (Honorable Mention) National Society of Black Physicists (NSBP)	Nov. 2022

Chambliss Astronomy Achievement Award at AAS 240
American Astronomical Society

Jun. 2022

Graduate Student Scholarship
Georgia State University Alumni Association

2020

Most Inspirational Alumnus Award
Berea College African Students Association

2016


University of Cincinnati SEED Grant recipient
University of Cincinnati

2014

Waldemar Noll Prize in Physics
Berea College

2012

REFEREED PUBLICATIONS * *

 **ORCID:0000-0003-4568-2079**

1. The Solar Neighborhood L: Spectroscopic Discovery of K Dwarfs Younger than 1 Gyr and New Binaries within 30 Parsecs
Hubbard-James, H.-S., Lesley, D.X., Henry, T.J., et al., 2022, AJ 164 174.**
2. Visual Orbits of Spectroscopic Binaries with the CHARA Array. IV. HD 61859, HD 89822, HD 109510, and HD 191692
Lester K. V., Schaefer G. H., ... **Hubbard-James, H.-S.**, et al., 2022, AJ, 164, 228.
3. The Solar Neighborhood XLVIII: Nine Giant Planets Orbiting Nearby K Dwarfs, and the CHIRON Spectrograph's Radial Velocity Performance
Paredes L. A., Henry T. J., Quinn S. N., Gies D. R., Hinojosa-Goni R., **James H.-S.**, Jao W.-C., et al., 2021, AJ, 162, 176.
4. Mapping out the Stellar Populations of IC 2602 and IC 2391
Nisak, A.H., White, R.J., Yep, A., ... **James, H.-S.**, et al., 2022, AJ, 163, 278.
5. TOI 564 b and TOI 905 b: Grazing and Fully Transiting Hot Jupiters Discovered by TESS
Davis A. B., Wang S., Jones M., Eastman J. D., ... **James, H.-S.**, et al., 2020, AJ, 160, 229.
6. TOI 694b and TIC 220568520b: Two Low-mass Companions near the Hydrogen-burning Mass Limit Orbiting Sun-like Stars
Mireles I., Shporer A., Grieves N., Zhou G. ... **James, H.-S.**, et al., 2020, AJ, 160, 133.
7. KELT-25 b and KELT-26 b: A Hot Jupiter and a Substellar Companion Transiting Young A Stars Observed by TESS
Rodríguez Martínez R., Gaudi B. S., ... **James, H.-S.**, et al., 2020, AJ, 160, 111.
8. A Well-aligned Orbit for the 45 Myr-old Transiting Neptune DS Tuc Ab
Zhou G., Winn J. N., Newton E. R., Quinn S. N., ... **James, H.-S.**, et al., 2020, ApJL, 892, L21.
9. TESS Spots a Hot Jupiter with an Inner Transiting Neptune
Huang C. X., Quinn S. N., Vanderburg A., ... **James, H.-S.**, et al., 2020, ApJL, 892, L7.
10. MASCARA-4 b/bRing-1 b: A retrograde hot Jupiter around a bright A-type star
Dorval P., Talens G. J. J., Otten G. P. P. L., ... **James, H.-S.**, et al., 2020, A&A, 635, A60.
11. TESS discovery of an ultra-short-period planet around the nearby M dwarf LHS 3844
Vanderspek R., Huang C. X., Vanderburg A., Ricker G. R., Latham D. W., Seager S., Winn J. N., ... **James, H.-S.**, et al., 2019, ApJL, 871, L24.

Variations of my name in literature include: **James, H.S., **James, H-S**, **Hodari-Sadiki, J.**, and **Hubbard-James, H.-S.**

12. HD2685 b: A Hot-Jupiter orbiting an early F-type star detected by TESS
Jones M. I., Brahm R., Espinoza N., Wang S., ... **James, H.-S.**, et al., 2019, A&A, 625, A16.
13. HD 202772A b: A Transiting Hot Jupiter around a Bright, Mildly Evolved Star in a Visual Binary Discovered by TESS
Wang S., Jones M., Shporer A., Fulton B. J., ... **James, H.-S.**, et al., 2019, AJ, 157, 51.
14. Rare earth doped downshifting glass ceramics for photovoltaic applications
Leonard, R.L., Gray, S.K., **James, H.-S.**, et al., 2013, Journal of non-crystalline solids, 366, pp.1-5.

RESEARCH EXPERIENCE

Spectral Characterization of K dwarfs

Aug 2017- Present

Advisor: Dr. Todd J. Henry

Atlanta, GA

- Spectroscopic determination of K dwarf stellar properties, including age, activity, metallicity, & temperature using high resolution (R=80,000) CHIRON spectra.

Biomedical Engineer and Research Scientist

Mar 2015 - Nov 2016

Castle Medical

Smyrna, GA

- Lead validation studies of the Golden Gate/InCCA Clinical Chemistry Photo-Analyzers.

Thermo-responsive Polymers for Cell-Based Therapeutic Applications

Aug 2012- Dec 2014

Advisor: Dr. Daria Narmoneva

Cincinnati, OH

- In-vitro production of intact human cell sheets for improvement of Diabetic Wound healing outcomes.

TEACHING EXPERIENCE

Joint Instructor

Spring 2022

Georgia State University

Atlanta, GA

- Co-Lecturer for a Synchronous (Online and In-Person Instruction) Introductory Astronomy Course ASTR 1000 (Introduction to the Universe)
- Gave twelve (12) lectures over the semester, on topics such as, the Solar System, Astrobiology and Life in the Universe, and Stellar Evolution.

Graduate Teaching Assistant

Aug 2017 - Jul 2021

Georgia State University

Atlanta, GA

- Instructor for Introductory Astronomy Lab ASTR 1010 (Astronomy of the Solar System)
Fall 2017, 2018, 2019, & 2020, Spring 2019, & 2021
- Instructor for Introductory Astronomy Lab ASTR 1020 (Stellar and Galactic Astronomy)
Fall 2020, Spring 2018, & 2020

GRE and SAT Instructor

Jan 2019 -Jan 2020

Educational Testing Consultants/ University of Georgia

Athens, GA

- Instructor for GRE Test Prep course at the University of Georgia
Spring 2019, & Summer 2019
- Instructor for SAT Test Prep course at the University of Georgia
Spring 2019, Summer 2019, & Fall 2020

Graduate Teaching Assistant

University of Cincinnati

Aug 2012 - May 2014

Cincinnati, OH

- Instructor for Biomedical Engineering Labs, Basic Electrical Circuits, & BME Senior Capstone I Fall 2012, & 2013, Spring 2013, & 2014

Lecturer

University of Cincinnati

Fall 2013

Cincinnati, OH

- Lecturer for a Basic Electrical Circuits course (BME 3071) in the Biomedical Engineering department at the University of Cincinnati.

SERVICE & OUTREACH

CHIRON Data Manager

Georgia State University

Dec 2018 - Present

- Organize, process, and distribute all calibration and scientific data acquired using the CHIRON echelle spectrometer. CHIRON is mounted on the CTIO/SMARTS 1.5m telescope which is operational for upwards of 300 nights per year. Since December 2017, CHIRON data has been used to publish over 70 peer-reviewed articles and contributed to the completion of 7 dissertations.

Invited Talk at the Bradley Observatory Open House

Agnes Scott College

Dec. 2022

- Presented talk titled, *The Search for Habitable Environments Around Nearby Stars (K Dwarfs)* to a public audience at Agnes Scott College.

Grad Life at Georgia State Panelist

Georgia State University

Aug 2022

- Invited as the College of Arts & Sciences representative for a Georgia State University graduate orientation panel discussing life as a grad student.

STEM Hands Summer Camp

Georgia Outreach Team for Space (GOT Space)

Jun 2022

- Presented and Lead activities for a group of ~15 high school students who are either deaf or hard of hearing.

NASA Science Activation Planetary Reach Workshop

Arizona State University

Apr 2022

- Participated in a workshop and an outreach event focused on engaging audiences in planetary science and exploration, with an explicit focus on Latinx and Black communities.

Astronomy Curriculum Committee Member

Georgia State University

Sept 2021 - Present

- Graduate student representative on the Physics and Astronomy department's Curriculum Committee that discusses new courses and any changes to the current course catalog.

AstroPal Grad-Student Association

Georgia State University

Aug 2020 - Present

- Mentoring 1st and 2nd year graduate students in the Physics & Astronomy Department.

Hard Labor Creek Observatory Open House

Georgia State University

Aug 2017 - Jan 2020

- Helped set up telescopes for public to view of several astronomical objects during the open house.

Volunteer Lecturer & Mentor

Aug 2015 - Aug 2019

Freedom University

- Math and SAT instructor for students at Freedom University.

MENTORING

Sebastian Carrasco Gaxiola - Graduate Student, Georgia State University.	Aug 2022 - Present
Tim Johns - Graduate Student, Georgia State University.	May 2022 - Present
D. Xavier Lesley - Graduate Student, Southern Connecticut State University.	Jan 2021 - Present
Dan Johns (AstroPal Mentee) - Graduate Student, Georgia State University.	Sep 2020 - May 2022
Andrey Brevett - Undergraduate Student, Berea College.	Aug 2018 - Aug 2022
Edgar Ortiz - High School Student, Freedom University.	Aug 2015 - Aug 2016
Chukwuemeka Chikelu - Graduate Student, University of Cincinnati.	Aug 2014 - Aug 2015

PROFESSIONAL AFFILIATIONS

Southern Regional Education Board (SREB)	Aug 2022 - Present
American Astronomical Society (AAS)	Oct 2017 - Present
National Society of Black Physicists (NSBP)	Aug 2021 - Present
Biomedical Engineering Society (BMES)	May 2015 - May 2017

TECHNICAL PROFICIENCY

Programming Language

- Expert: Python, Matlab, bash
- Intermediate Proficiency: IDL, R, HTML/CSS
- Limited Proficiency: C++, Julia

Software and Packages

- Astronomy: Astropy, IRAF/PyRAF, TOPCAT, DS9
- Telescope Operation: CTIO 1.5 telescope (computerized), CTIO 0.9 telescope (computerized), Multiple Tripod & Table Top Telescopes (manual)
- Others: LaTeX, MS Office, Git Repository

NON-REFEREED ABSTRACTS AND CONFERENCE PROCEEDINGS

1. Spectroscopic Identification of Young and Active K Dwarfs Within 25 Parsecs
Hubbard-James, H.-S., Lesley, D.X., Henry, T.J., Paredes, L. A., Nisak, A., 2022, Poster presentation, American Astronomical Society 240th Meeting Abstracts.
2. A Kinematic and Spectroscopic Analysis of the Nearest K Dwarfs
Lesley, D.X., **Hubbard-James, H.-S.**, Henry, T.J., Paredes, L. A., Nisak, A., 2022, Oral presentation, American Astronomical Society 240th Meeting Abstracts.

3. Spectroscopic Identification of Young and Active K Dwarfs Within 25 Parsecs
Hubbard-James, H.-S., Lesley, D.X., Henry, T.J., Paredes, L. A., Nisak, A., 2022, Oral presentation, 2022 Astrobiology Science Conference (AbSciCon 2022).
4. Spectroscopic Identification of Five K Dwarfs Younger than 1 GYR Within 30 parsecs
Hubbard-James, H.-S., Lesley, D.X., Henry, T.J., 2021, Oral presentation, 2021 National Society of Black Physicists Conference.
5. A Kinematic and Spectroscopic Analysis of the Nearest K Dwarf Stars
Lesley, D.X., **Hubbard-James, H.-S.**, Henry, T.J., 2021, Oral presentation, 2021 National Society of Black Physicists Conference.
6. Solar System Realms: Stars Taking Up Space Where Planets Could Be
Henry, T. J., Jao, W., Paredes, L. A., Vrijmoet, E. H., **James, H.-S.**, et al., 2021, In: American Astronomical Society Meeting Abstracts.
7. A Radial Velocity Survey of the Complete Sample of K Dwarfs within 25 Parsecs.
Paredes, L. A., Henry, T. J., Jao, W., **James, H.-S.**, et al. In: American Astronomical Society Meeting Abstracts. Vol. 53. Jan. 2021, p. 332.02