

JUSTIN H. ROBINSON – CURRICULUM VITAE

CONTACT INFORMATION

Department of Physics & Astronomy
Georgia State University
25 Park Place, Suite 605
Atlanta, GA 30303-2911

Email: jrob@astro.gsu.edu
Office: 25 Park Place, Suite 605
Phone: (404)-413-2000
Website: astro.gsu.edu/~jrob

EDUCATION

Georgia State University (GSU) Ph.D., Astronomy Advisor: Dr. Misty Bentz	Expected 2022
GSU M.S., Physics Advisor: Dr. Misty Bentz	2020
Saint Mary's College of California (SMC) B.S. in Physics with Astrophysics Concentration Advisors: Dr. Ronald Olowin, Dr. Brian Hill GPA/Major GPA: 3.47/3.29	2017

RESEARCH INTERESTS

HI 21 cm emission line diagnostics; relationships between galaxies and supermassive black holes; active galactic nucleus host galaxies; extragalactic distance determinations; galaxy baryonic/dynamical/dark matter mass determinations; supermassive black hole mass measurements.

PROFESSIONAL AFFILIATIONS

Georgia Space Grant Consortium (GSGC)	2018-Present
American Astronomical Society (AAS) Member	2017-Present
Arecibo Legacy Fast ALFA (ALFALFA)	2014-2017
Arecibo Pisces-Perseus Supercluster Survey (APPSS)	2014-2017

LEADERSHIP POSITIONS

Astronomy Graduate Lab Coordinator, GSU	2019-Present
AstroPAL (Peer Advising Leader), GSU	2019-Present
Georgia Outreach Team for Space (GOT Space) Graduate Lead, GSGC	2018-Present
Graduate Student Liaison, AstroPAL & Physics Graduate Student Association, GSU	2018-2019
ALFALFA Undergraduate Research Leader, SMC	2017

WORKSHOPS

Single Dish Training Workshop Observational training and data analysis tools for the 100 meter Green Bank Telescope (GBT)	2018
Undergraduate ALFALFA Workshop Study of galaxy detections from radio spectrum, acquisition of detection characteristics and behavior from radio emission at the Green Bank Observatory	2016

CURRENT POSITION

Astronomy Graduate Lab Coordinator GSU	2019-Present
GOT Space Graduate Lead GSGC	2018-Present
Graduate Teaching Assistant GSU	2017-Present

PREVIOUS EMPLOYMENT

Mathematics Tutorial Teacher Taught pre-calculus and calculus tutorial classes at SMC	2016-2017
Laboratory Assistant Assisted in the astronomy lab course at SMC	2015-2017

SKILLS

Galfit: galaxy surface brightness modeling software.
BusyFit: analytical modeling of emission line profiles.
IDL, Python, L^AT_EX
Green Bank Telescope GBTIDL: IDL suite for reduction and analysis of GBT spectral data.
Remote observing, GBT
IRAF, DS9
Arecibo Radio Telescope IDL_LBW: IDL suite for reduction and analysis of Arecibo spectral data.
Remote observing, Arecibo Telescope

PUBLIC OUTREACH

Scientific Consultant for “Race Through Space: Galaxy Edition” App Selected galaxies, provided physical information, and calculated distance scales for Science ATL and Atlanta Science Festival’s app Click here for the app homepage	2020
GSU Publicity & Outreach Committee Member Reporting of outreach events and student groups in the GSU official newsletter.	2020-Present
GOT Space Graduate Lead GOT Space Program lead ambassador in association with the GSGC Click here for GOT Space’s website	2018-Present

EVENTS

GOT Space Virtual Presentations: Flat Shoals Elementary School Presented for 2 classes	2020
GOT Space Virtual Presentations: Jean Childs Young Middle School Organized virtual presentations for 6 classes	2020
10th Georgia NASA STEM Conference Presented professional development workshop to Georgia STEM teachers	2020
GOT Space Virtual Presentations: Maynard Holbrook Jackson High School Organized virtual presentations for 3 classes	2020
Virtual GOT Space Public Talk Hosted virtual talk and Q&A: “Building M87’s Supermassive Black Hole Image” Recording available, click here	2020
Atlanta Science Festival “Imagining the Future” Event Presented for 4 classes at Jean Childs Young Middle School	2020

NASA National Space Grant 30th Anniversary Event on Capitol Hill	2020
1 of 3 representatives of Georgia outreach and GSGC; ran virtual and augmented reality demonstrations; met with 2 Georgia representatives to discuss impact and future funding	
Trip Elementary School STEM Night	2020
Organized science demonstrations and telescope observations, answered questions for several hundred students	
GOT Space Presentations: Maynard Holbrook Jackson High School	2020
Organized presentations for 6 classes	
Carver Early College Science & Engineering Fair	2019
Organized 3 GOT Space ambassadors and I's participation as science fair judges	
GOT Space presentations: Maynard Holbrook Jackson High School	2019
Organized presentations for 6 classes	
STEM Undergraduate Ambassador Training Co-Facilitator	2019
1 of 2 graduate lead facilitators for training of 18 undergraduate GOT Space ambassadors	
Atlanta Race Through Space 5K	2019
Ran GSGC sponsor tent	
GOT Space presentations: Lanier High School	2019
Organized presentations for 3 classes	
Trip Elementary School STEM Night	2019
Ran science demonstrations and answered questions for several hundred students	
GOT Space presentations: Maynard Holbrook Jackson High School	2019
Organized presentations for 4 classes	
GOT Space presentations: Alpharetta High School	2018
Lead presentation for Alpharetta Astronomy Club meeting	
GOT Space presentations: Cristo Rey Jesuit High School	2018
Organized presentations for 5 classes	
Hard Labor Creek Observatory Volunteer	2018-Present
Operate telescopes & answer public questions during open houses	
SMC On-campus APPSS Research Display	
SMC Physics Outreach Program Member	2015-2017
Research presentations at Saint Mary's High School, Stockton CA and Athenian High School, Danville CA	
SMC Physics & Engineering Program Recruitment	2015-2017
Represented the physics department on preview days for prospective students	

CONFERENCE TALKS

236th AAS Meeting, Talk Number 225.03	2020
"Fundamental Properties of Active Galaxies: Distances and Masses of Nearby Seyferts,"	
J. Robinson, M. Bentz	
Recording available, click here	
7th Perimeter Astronomy Conference	2019
"Connecting AGN Host Galaxies to the Cosmic Distance Ladder"	
Georgia Regional Astronomers Meeting	2018
"HI Spectroscopy of Reverberation-Mapped Active Galactic Nuclei"	
Recording available, click here	
6th Perimeter Astronomy Conference	2018
"HI Spectroscopy of Reverberation-Mapped Active Galactic Nuclei"	
Recording available, click here	

ACCEPTED PROPOSALS

“HI Spectroscopy of Active Galaxies with Direct Black Hole Mass Measurements”

GBT Project ID: GBT18B-258

Hours allocated: 208.25

PEER-REVIEWED PUBLICATIONS

“HI Spectroscopy of Reverberation-Mapped Active Galactic Nuclei”, Justin H. Robinson, Misty C. Bentz, Megan C. Johnson, Hélène M. Courtois, Benjamin Ou-Yang 2019, ApJ, 880, 68

RESEARCH EXPERIENCE

Undergraduate Research Mentor, GSU 2019

Trained and mentored undergraduate in ongoing research project; calibration of galaxy distance measurement method

SMC ALFALFA Research Leader 2017

Independent leader and trainer of 7 undergraduates from SMC and University of San Francisco (USF)

Data reduction and analysis of galaxy detections from radio frequency

APPSS Research Poster 2016

Poster presentation at SMC Research Symposium

APPSS Independent Research 2015-2016

NSF grant funded project; Statistical analysis of blank-field galaxy target outliers from APPSS

APPSS SMC Undergraduate Team Research 2015

NSF grant funded project; galaxy classification, analysis, and cross-reference through use of radio and optical detections of targets

Country-wide collaboration with participating schools such as Cornell University, Union College, USF, West Texas A&M, and others

OBSERVING EXPERIENCE

100m GBT: Green Bank Observatory, Green Bank WV

305m Arecibo Telescope: Arecibo Observatory, Arecibo PR

3.5m A.R.C. Telescope: Apache Point Observatory, Sunspot NM

0.5m A.R.C.S.A.T. Telescope: Apache Point Observatory, Sunspot NM

20m Green Bank Telescope: Green Bank Observatory, Green Bank WV

0.60m Miller Telescope: Hard Labor Creek Observatory, Rutledge GA

0.4m Meade Schmidt-Cassegrain Telescope: Geissberger Observatory, Moraga CA

TEACHING EXPERIENCE

Online Instruction Material Development 2020

Built online curriculum for 1010 and 1020 introductory astronomy labs

GSU Substitute Lecturer 2019

Taught 7 astronomy lectures as a substitute instructor

Astronomy Lab Instructor 2017-Present

1010 and 1020 labs for introductory astronomy courses at GSU

Mathematics Tutorial Teacher 2016-2017

Paid student teacher of pre-calculus & calculus tutorial classes at SMC Mathematics Private Tutor	2016-2017
Paid student tutor at SMC SMC Substitute Lecturer	2016-2017
Taught 2 astronomy lectures as a substitute instructor Teaching Assistant, Astronomy	2015-2017
Mathematics Private Tutor	2013-2015

REFERENCES

Professor Misty Bentz, Ph.D.
 Advisor, Department of Physics and Astronomy, GSU
 bentz@astro.gsu.edu

Professor Rebecca Koopmann, Ph.D.
 Department of Physics and Astronomy, Union College
 koopmanr@union.edu

Professor Edward Boyda-Vikander, Ph.D.
 Department of Physics and Astronomy, SMC
 ekb2@stmarys-ca.edu

Professor Jessica Kintner, Ph.D.
 Department of Physics and Astronomy, SMC
 jkintner@stmarys-ca.edu

Professor Brian Hill, Ph.D.
 Department of Physics and Astronomy, SMC
 brh3@stmarys-ca.edu

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