JUSTIN H. ROBINSON – CURRICULUM VITAE

CONTACT INFORMATION

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CURRENT POSITION

Lecturer 2024-Present
Georgia State University (GSU)

EDUCATION

GSU 2022
Ph.D., Astronomy
Advisor: Dr. Misty Bentz

GSU 2020
M.S., Physics
Advisor: Dr. Misty Bentz

Saint Mary's College of California (SMC) 2017
B.S. in Physics with Astrophysics Concentration
Advisors: Dr. Ronald Olowin, Dr. Brian Hill

PREVIOUS EMPLOYMENT

Visiting Lecturer 2023-2024
GSU

Tenure Track Assistant Professor 2021-2023
Troy University (TU)

Graduate Research Assistant 2017-2022
GSU

Astronomy Graduate Lab Coordinator 2019-2021
GSU

Mathematics Tutorial Teacher 2016-2017
Taught pre-calculus and calculus tutorial classes at SMC

Laboratory Assistant 2015-2017
Assisted in the astronomy lab course at SMC

PROFESSIONAL AFFILIATIONS

Astronomy on Tap (AoT)	2024-Present
Troy Astronomical Society (TAS)	2021-Present
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

SKILLS

Proficient in IDL, Python, LaTeX, IRAF, DS9, MacOS, Windows, Linux, Microsoft Office Suite
iCollege instructor and proficiency certification
Canvas instructor and proficiency certification
Knowledgeable in MaximDL
CARAMEL: geometric and dynamical modeling software of reverberation mapping data.
Galfit: galaxy surface brightness modeling software.
BusyFit: analytical modeling of emission line profiles.
Green Bank Telescope (GBT) GBTIDL: IDL suite for reduction and analysis of GBT spectral data.
Remote observing, GBT
Arecibo Radio Telescope IDL_LBW: IDL suite for reduction and analysis of Arecibo spectrral data.
Remote observing, Arecibo Telescope

LEADERSHIP POSITIONS

GSU Affiliate Director, GSGC	2024-Present
Georgia Outreach Team for Space (GOT Space) Faculty Lead, GSGC	2023-Present
Three Taverns Astrophysics Lecture Series Director	2023-Present
GSU Research Experience for Undergraduates (REU) Program Mentor	2024
Interim GSU Affiliate Director, GSGC	2023-2024
Research Committee Chair, Faculty Senate, TU	2023
Faculty Senate, TU	2022-2023
TAS President, TU	2022-2023
TAS Vice President, TU	2021-2022
Astronomy Graduate Lab Coordinator, GSU	2019-2021
AstroPAL (Peer Advising Leader), GSU	2019-2021
GOT Space Graduate Lead, GSGC	2018-2021
Graduate Student Liaison, AstroPAL & Physics Graduate Student Association, GSU	2018-2019
ALFALFA Undergraduate Research Leader, SMC	2017

COURSES DEVELOPED AND TAUGHT

ASTR-1000K "Introduction to the Universe"
Undergraduate science course, GSU

ASTR-1010K "Astronomy of the Solar System"
Undergraduate lab science course, GSU

ASTR-1020K "Stellar and Galactic Astronomy"
Undergraduate lab science course, GSU

ASTR-3301 "Extragalactic Astronomy"
Undergraduate upper-division astronomy & astrophysics course, TU

SCI-1110 "Exploring the Solar System"
Undergraduate lab science course, TU

SCI-L110 "Exploring the Solar System Lab"
Undergraduate science lab, TU

SCI-1110 ONLINE "Exploring the Solar System "
Online undergraduate lab science course, TU

SCI-L110 ONLINE "Exploring the Solar System Lab"
Online undergraduate science lab, TU

SCI-2240 "Principles of Astronomy: Stars, Galaxies, and Cosmology"
Undergraduate lab science course, TU

SCI-L240 "Principles of Astronomy: Stars, Galaxies, and Cosmology Lab"
Undergraduate science lab, TU

SCI-2240 ONLINE "Principles of Astronomy: Stars, Galaxies, and Cosmology"
Online undergraduate lab science course, TU

SCI-L240 ONLINE "Principles of Astronomy: Stars, Galaxies, and Cosmology Lab"
Online undergraduate science lab, TU

PHYS-1111K "Introductory Physics I"
Undergraduate, algebra-based physics lab science course, GSU

PHYS-2211K "Principles of Physics I"
Undergraduate, calculus-based physics lab science course, GSU

SCI-L233 "Physical Science Laboratory"
Undergraduate science lab, TU

PREVIOUS TEACHING EXPERIENCE

GSU Substitute Lecturer - Graduate 2024
Taught 3 lectures and contributed curricula to ASTR-8400K "Extragalactic Astronomy" and ASTR-8200K "Galactic Structure" graduate courses

GSU Substitute Lecturer - Undergraduate 2019
Taught 7 undergraduate astronomy lectures

Astronomy Lab Instructor 2017-2020
Taught 1010 and 1020 labs for introductory astronomy courses at GSU

Mathematics Tutorial Teacher 2016-2017
Taught pre-calculus & calculus tutorial classes at SMC

Mathematics Tutor 2016-2017
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

UNDERGRADUATE STUDENTS ADVISED (ACADEMIC)

Nicole Eikmeier, BS in physics, astronomy & astrophysics minor, TU	2023-Present
Elizabeth Alexander, BS in physics, astronomy & astrophysics minor, TU	2023-Present
Veronica Lahue, BS in physics, astronomy & astrophysics minor, TU	2022-Present
Thomas Kay, BS in physics, astronomy & astrophysics minor, TU	2022-2024
Aster Hamaker, BS in physics, astronomy & astrophysics minor, TU	2022-2023
Mystic Wilkes, BS in physics, astronomy & astrophysics minor, TU	2022-2023
Austen Hensley, BS in physics, TU	2021

UNDERGRADUATE STUDENTS ADVISED (RESEARCH)

Mahitha Ramachandran, BS in astronomy & astrophysics (REU Student), University of Pittsburgh	2024
Ishita Chintala, BS in physics (REU Student), GSU	2024
Veronica Lahue, BS in physics, astronomy & astrophysics minor, TU	2022-Present
Thomas Kay, BS in physics, astronomy & astrophysics minor, TU	2022-2024
Naveen Ali, BS in aerospace engineering, Georgia Institute of Technology	2023-2024
Atul Gautam, BS in physics, GSU	2023-2024
Bradley Clemons, BS in physics (PHYS4900K student), GSU	2023-2024
Thomas Gregoire, BS in physics (PHYS4900K student), GSU	2023

AWARDS AND HONORS

Nominee, Ingalls Award for Excellence in Classroom Teaching, TU 2023

RESEARCH INTERESTS

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

PEER-REVIEWED PUBLICATIONS

"*Investigating the Narrow Line Region Dynamics in Nearby Active Galaxies*", Beena Meena, D. Michael Crenshaw, Henrique R. Schmitt, Mitchell Revalski, Zo Chapman, Travis C. Fischer, Steven B. Kraemer, **Justin H. Robinson**, Julia Falcone, Garrett E. Polack 2023, ApJ, 943, 98
Click here for the abstract

"*Tully-Fisher Distances and Dynamical Mass Constraints for 24 Host Galaxies of Reverberation-Mapped AGN*", **Justin H. Robinson**, Misty C. Bentz, Hélène M. Courtois, Megan C. Johnson, D. M. Crenshaw, Beena Meena, Garrett E. Polack, Michele L. Silverstein, Dading Chen 2021, ApJ, 912, 160
Click here for the abstract

"*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
Click here for the abstract

ACCEPTED PROPOSALS

"HI Spectroscopy of Active Galaxies with Direct Black Hole Mass Measurements"
GBT Project ID: GBT18B-258
Hours allocated: 208.25

GRANTS

"Georgia State University - GSGC Fellowship" (x2)
Amount Allocated: $10,000

"Georgia State University - GSGC Visiting Observer Program" (x2)
Amount Allocated: $4,000

"The Georgia Outreach Team for Space"
Amount Allocated: $10,000

Total: $38,000

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

CONFERENCE TALKS AND POSTERS

242nd AAS Meeting, Poster Number 341.23 2023
"On the Tully-Fisher Relation for AGN Host Galaxies"
J. Robinson, M. Revalski, T. Kay, V. Lahue, M. Menon

240th AAS Meeting, Talk Number 335.04D 2022
"Distances & Black Hole Masses of Nearby Seyferts"
J. Robinson, M. Bentz

237th AAS Meeting, Talk Number 209.01 2021
"Dynamical Masses for the Host Galaxies of Reverberation-Mapped AGN"
J. Robinson, M. Bentz

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

5th Perimeter Astronomy Conference 2017
"The Radio View of Galaxies in the Nearby Universe"

INVITED TALKS AND COLLOQUIA

Space Telescope Science Institute Galaxies and AGNs Journal Club Guest Presenter 2024
"On the Tully-Fisher Relation for AGN Host Galaxies"

Bradley Observatory at Agnes Scott College Open House 2023
"Building the Real Images of Supermassive Black Holes"

Charlie Elliott Astronomy Club 2022
"Probing Nearby Active Galaxies: Distances, Masses, Dark Matter, and Black Holes"

University of Alabama at Birmingham Physics Colloquium 2022
"Probing Nearby Active Galaxies: Distances, Masses, Dark Matter, and Black Holes"

Von Braun Astronomical Society 2022
"Probing Nearby Active Galaxies: Distances, Masses, Dark Matter, and Black Holes"

Space Telescope Science Institute Galaxies and AGNs Journal Club Guest Presenter 2021
"Distances and Masses for 24 Host Galaxies of Reverberation-Mapped AGN"

United States Naval Observatory Journal Club Guest Presenter 2021
"Tully-Fisher Distances and Dynamical Mass Constraints for 24 Host Galaxies of Reverberation-Mapped AGN"

Bradley Observatory at Agnes Scott College Open House 2021
"Probing Nearby Active Galaxies: Distance, Masses, Dark Matter, and Black Holes"
Recording available, click here

WORKSHOPS

Learning Science Through the Lens of Astronomy 2021
Hosted professional development workshop for Georgia STEM teachers; interactive K-12 STEM presentations of astronomy-themed topics
Recording available, click here

Single Dish Training Workshop 2018
Observational training and data analysis tools for the 100 meter GBT

Undergraduate ALFALFA Workshop 2016
Study of galaxy detections from radio spectrum, acquisition of detection characteristics and behavior from radio emission at the Green Bank Observatory

ASTRONOMY SERVICE

Subject-matter expert reviewer in a NASA peer review 2023
Referee for *The Astrophysical Journal (ApJ)* 2022-Present

UNIVERSITY SERVICE

Physics & Astronomy Undergraduate Advisor, TU 2021-2023
Faculty Senate, TU 2022-2023

COMMITTEES

Chair, Research Committee 2023
Executive Committee 2023
Athletic Advisory Committee 2022-2023
Academic Affairs Committee 2022-2023

IMPACT Faculty Representative, TU 2022
Representative of Chemistry & Physics Department for new student orientation session

Commencement Faculty Representative, TU 2022

Trojan Day Faculty Representative, TU 2021, 2022
Representative of Chemistry & Physics Department for prospective students

COLLEGE SERVICE

Astronomy & Astrophysics Colloquium Director, TU 2022-2023
Curate and manage invited speakers for the astronomy & astrophysics colloquium series for the College of Arts and Sciences at TU

HOSTED SPEAKERS

Dr. Mitchell Revalski
"How Galaxies are Shaped by Supermassive Black Hole Winds" 2022

Dr. Michelle Wooten
"Light Pollution at Home in the South: How it Affects Us and What We Can Do" 2022

Dr. Eliot Vrijmoet
"One Big Picture of M Dwarf Binary Star Orbits" 2023

DEPARTMENT SERVICE

HyperPhysics Committee, GSU 2023-Present
Management and updating of HyperPhysics

Research Experience for Undergraduates (REU) Committee, GSU 2023-Present
Selection of accepted REU applicants, management of REU program

Departmental Evaluations Committee, GSU 2023-Present
Curate and update student learning outcomes and end-of-semester evaluations for ASTR1010K and ASTR1020K courses

PHYS4900K Research Project Mentor, GSU 2023
Mentor of research projects for 2 undergraduate physics majors

Physics Faculty Search Committee, TU 2023
Oversee recruitment, interviewing, and hiring of physics faculty member

New Astronomy Course Development, TU 2022-Present
"Extragalactic Astronomy" 2022-2023
"Stellar Evolution" 2023-Present
"Astronomy Capstone" 2022-Present

Student Recruitment to Physics Major, TU 2022-2023
Students recruited: 7

Astronomy & Astrophysics Minor Development, TU 2022-Present
Develop requirements and material included in new Astronomy & Astrophysics minor

Online Instruction Material Development, GSU 2020
Built online curriculum for 1010 and 1020 introductory astronomy labs

Workshop Development for Graduate Students Through AstroPAL, GSU 2019-2021
Developed material for 1st and 2nd year graduate students (qualifying exam preparation, coding, scientific writing, etc.)

PUBLIC OUTREACH

Three Taverns Astrophysics Lecture Series Director 2023-Present
Curate and manage GSU graduate student and faculty talks for monthly series at Three Taverns Brewery and Three Taverns Imaginarium

EVENTS

October Event: Dr. Justin Robinson 2023

November Event: Mary Geer Dethero and Katherine Shepard 2023

December Event: Dr. Viacheslav Sadykov 2023

January Event: Dr. Justin Robinson 2024

February Event: Zachary Way 2024

March Event: Dr. Sebastien Lepine 2024

April Event: Dr. Russel White 2024

May Event: Julia Falcone 2024

June Event: Emma Galligan and Maura Shea 2024

July Event #1: Andrew Couperus 2024

July Event #2: Dr. Justin Robinson 2024

GOT Space Faculty Lead 2023-Present
GOT Space Program faculty lead in association with the GSGC
Click here for GOT Space's website

EVENTS

GOT Space Presentations

Drew Charter School 2023

A. L. Burress Elementary 2023

Usher-Collier Elementary 2023

Booker T. Washington High School 2024

Hard Labor Creek Observatory Volunteer 2023-Present

Charlie Elliott Astronomy Club Invited Talk 2022

Von Braun Astronomical Society Invited Talk 2022

TAS President 2022-2023
Curation and preparation of club presentations and invited speakers; director of observing sessions

STEMapalooza Conference 2021
Presented GOT Space presentations and demonstrations to Georgia STEM teachers; ran virtual and augmented reality demonstrations

10th Georgia NASA STEM Conference 2020
Presented professional development workshop to Georgia STEM teachers

Scientific Consultant for "Race Through Space: Galaxy Edition" App 2020
Selected galaxies, provided physical information, and calculated distance scales for Science ATL and Atlanta Science Festival's app
Click here for the app homepage

GSU Publicity & Outreach Committee Member 2020-2022
Reporting of outreach events and student groups in the GSU official newsletter.

GOT Space Graduate Lead 2018-2021
GOT Space Program lead ambassador in association with the GSGC

EVENTS

GOT Space Virtual Presentations

Frederick Douglass High School 2021

Trip Elementary School 2021

Northside Elementary School 2021

Wolf Creek Elementary School 2020

Stone Mountain Middle School 2020

Flat Shoals Elementary School 2020

Jean Childs Young Middle School 2020

Maynard Holbrook Jackson High School 2020

GOT Space Presentations

Maynard Holbrook Jackson High School 2020

Maynard Holbrook Jackson High School 2019

Lanier High School 2019

Maynard Holbrook Jackson High School 2019

Alpharetta High School 2018

Cristo Rey Jesuit High School 2018

Virtual GOT Space Public Talk 2020
Hosted virtual talk and Q&A: "Building M87's Supermassive Black Hole Image"
Recording available, click here

Atlanta Science Festival "Imagining the Future" Event 2020
Presented for 4 classes at Jean Childs Young Middle School

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

Carver Early College Science & Engineering Fair 2019
Organized 3 GOT Space ambassadors and I's participation as science fair judges

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

Trip Elementary School STEM Night 2019
Ran science demonstrations and answered questions for several hundred students

Hard Labor Creek Observatory Volunteer 2018-2022
Operate telescopes & answer public questions during open houses

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

REFERENCES

Professor Govind Menon, Ph.D.
Chair, Department of Chemistry and Physics, TU
gmenon@troy.edu

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

Lori Skillings
Program Manager, GSGC
lskillings@gatech.edu

Professor D. Michael Crenshaw, Ph.D.
Department of Physics and Astronomy, GSU
dcrenshaw@gsu.edu

Professor Hélène M. Courtois, Ph.D.
Department of Physics, University of Lyon
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Megan Johnson, Ph.D.
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