# Yasmeen Asali

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#### **RESEARCH INTERESTS**

Low-mass galaxy formation and evolution, star formation, stellar-halo mass relation

### **EDUCATION**

Yale University, New Haven, CT

2020 - Present

Ph.D. in Astronomy

M.S., M.Phil. in Astronomy (2022)

Columbia University, New York, NY

2016 - 2020

**B.A.** in Astrophysics

Departmental Honors in Physics

Dean's List Spring 2017, Fall 2017, Spring 2018, Spring 2019

#### RESEARCH APPOINTMENTS

**Graduate Researcher** 

September 2020 - Present

New Haven, CT, USA

Yale Astronomy Department
Thesis Advisor: Marla Geha

**Undergraduate Researcher** 

September 2017 - August 2020

New York, NY, USA

Advisors: Szabi Marka, Zsuzsa Marka

Columbia Astronomy Department

**Summer Undergraduate Researcher** 

June 2019 - April 2020

Dutch National Institute for Subatomic Physics (Nikhef)

Amsterdam, The Netherlands

University of Florida's International REU Program in Gravitational Physics

Advisor: Chris Van Den Broeck

**Summer Undergraduate Researcher** 

June 2018 - August 2018

Santiago, Chile

Instituto de Astrofísica, Pontificia Universidad Católica de Chile

Advisors: Germán Gómez-Vargas, Andreas Reisenegger

# **PUBLICATIONS**

#### First-author:

1. **Y. Asali**, P. T. H. Pang, A. Samajdar, and C. Van Den Broeck. Probing resonant excitations in exotic compact objects via gravitational waves. Phys. Rev. D, 102(2):024016, July 2020

## Second- or third-author:

 A. G. Sullivan, Y. Asali, Z. Márka, D. Sigg, S. Countryman, I. Bartos, K. Kawabe, M. D. Pirello, M. Thomas, T. J. Shaffer, K. Thorne, M. Laxen, J. Betzwieser, K. Izumi, R. Bork, A. Ivanov, D. Barker, C. Adams, F. Clara, M. Factourovich, and S. Márka. Timing system of LIGO discoveries. Phys. Rev. D, 108(2):022003, July 2023

#### Other co-author:

1. R. Abbasi and IceCube Collaboration (incl. Y. Asali). IceCube Search for Neutrinos Coincident with Gravitational Wave Events from LIGO/Virgo Run O3. ApJ, 944(1):80, Feb. 2023

#### Non-Refereed Publications:

- A. Polzin, Y. Asali, S. Bhimani, M. Brady, M. C. Chen, L. DeMarchi, M. Gurevich, E. Lichko, E. Louden, J. Malewicz, S. Pagan, M. Rice, Z. Shen, E. Simon, C. Stauffer, J. Luna Zagorac, K. Auchettl, K. Breivik, H.-W. Chen, D. Coppejans, S. Kolwa, R. Margutti, P. Natarajan, E. Nelson, K. L. Page, S. Toonen, K. E. Whitaker, and I. Zhuravleva. Astronomy as a Field: A Guide for Aspiring Astrophysicists. arXiv e-prints, page arXiv:2312.04041, Dec. 2023
- 1. **Y. Asali**, K. Gerbig, A. Ghosh, C. Lindsay, Z. Shen, and M. Geha. A Standardized Framework for Collecting Graduate Student Input in Faculty Searches. *Bulletin of the AAS*, 54(1), December 2022. https://baas.aas.org/pub/2022i091

# Included on the following author lists:

LIGO Scientific Collaboration Author List

- incl. 45 publications
- approved Oct. 2019 for Feb. 2020 revision, removed Dec. 2022

LIGO O3 Detector Author List

- incl. 12 publications
- approved Oct. 2019 for Dec. 2019 revision, removed Dec. 2022

#### **PRESENTATIONS**

#### Research Talks:

CCA Galactic Frontiers: Dwarf Galaxies in the Local Volume and Beyond, July 2023. Star Formation Histories of SAGA Satellites

#### Research Poster Presentations:

APS Conference for Undergraduate Women in Physics, Yale University, Jan. 2020

235th Meeting of the American Astronomical Society, Honolulu, HI, Jan. 2020

Conference for Undergraduate Women in Astronomy, West Virginia University, Nov. 2019

Undergraduate Research Showcase, Columbia University, Oct. 2019

Astrofest, Columbia University, Sept. 2019 (2nd Place Prize)

233rd Meeting of the American Astronomical Society, Seattle, WA, Jan. 2019

Astrofest, Columbia University, Sept. 2018

# Poster Presentations:

- 5. D. Veske, IceCube Collaboration, Z. Marka, S. Countryman, Y. Asali, and A. Silva Oliveira. Multi-messenger searches via IceCube's high-energy neutrinos and gravitational-wave detections of LIGO/Virgo. In *37th International Cosmic Ray Conference*, page 950, Mar. 2022
- 4. A. Beck, **Y. Asali**, E. Cully, Z. Marka, and GECO (Columbia Experimental Gravity Group) Team. Probing the Statistical Relationship Between Binary Black Hole Mergers and Active Galactic Nuclei. In *APS April Meeting Abstracts*, volume 2022 of *APS Meeting Abstracts*, page F01.009, Apr. 2022
- 3. D. Veske, S. Countryman, **Y. Asali**, Z. Marka, I. Bartos, and S. Marka. Searching for joint gravitational-wave and high energy neutrino events with LLAMA. In *APS April Meeting Abstracts*, volume 2021 of *APS Meeting Abstracts*, page B09.007, Jan. 2021
- 2. **Y. Asali**, P. Pang, and C. Van Den Broeck. Probing Resonant Modes in Exotic Compact Objects via Gravitational Waves. In *American Astronomical Society Meeting Abstracts #235*, volume 235 of *American Astronomical Society Meeting Abstracts*, page 107.05, Jan. 2020

1. **Y. Asali**, G. Gomez-Vargas, and A. Reisenegger. Dark Matter Annihilation in the Galactic Center. In *American Astronomical Society Meeting Abstracts #233*, volume 233 of *American Astronomical Society Meeting Abstracts*, page 350.02, Jan. 2019

#### TEACHING EXPERIENCE

Yale Poorvu Center for Teaching and Learning, McDougal Graduate Fellow	May 2022 - Present
Warrior Scholar Project, Research Project Leader	June 2023
La Serena School for Data Science, Teaching Assistant	August 2021, August 2022
Reading Team Math, Teacher and Group Leader	September 2017 - June 2021
Yale University, Teaching Fellow	
Research Methods in Astrophysics, Astronomy Department	Fall 2022
Current Research in Astrophysics, Astronomy Department	Fall 2021
Frontiers & Controversy in Astrophysics, Astronomy Department	Spring 2021
Introduction to General Relativity and Black Holes, Astronomy Department	Fall 2020
Columbia University, Teaching Assistant	
Theories of the Universe, Astronomy Department	Spring 2020
Weapons of Mass Destruction, Physics Department	Spring 2018, Spring 2019
Stars and Atoms, Astronomy Department	Fall 2018

# AWARDS, SCHOLARSHIPS AND GRANTS

Teaching Innovation Project Grant	2023
Flipped Science Fair, First Place Presenter	2023
Dean's Fund for Seminars and Colloquia, Yale Graduate School of Arts and Sciences	2023
GPPD Career Grant, POD Network	2022
Columbia University Office of Academic Affairs Conference Fund	2018, 2020
ACM-W Scholarship for Women in Computing	2019
Sigma Xi Grant in Aid of Research	2019
Columbia University Senior Thesis Research Fund	2018
Columbia University C.S. Wu Fund for Women in Physics	2018

### **OUTREACH**

### Invited Public Outreach Talks:

Yale Pathways Summer Program, July 2022. Exploring the Milky Way Galaxy and its Satellites

Astronomy on Tap NYC, November 2021. Cosmic Happy Hour: Exotic Compact Objects

Columbia Center for Undergraduate Global Engagement, November 2019. Global Spotlight Panel Discussion: So You Think You Can Research Abroad

Columbia University Public Outreach Lecture for Skt. Josef's School, April 2019. Gravitational Wave Astrophysics with LIGO

Open Labs at Yale, Scientist Volunteer	February 2023 - Present
AAS Astronomy Ambassadors Program, Outreach Ambassador	January 2022 - Present
Skype a Scientist, Scientist Volunteer	March 2020 - Present
Letters to a Pre-Scientist, Scientist Volunteer	August 2019 - June 2021
SCiMMA Education and Public Outreach, Contributor	April 2020 - September 2020
Columbia BlueShift Astronomy Society, President and Senior Advisor	January 2018 - May 2020
Columbia Astronomy Public Outreach, Volunteer	February 2017 - May 2020

## **MENTORING**

Research Advising:

• • •	September 2019 - May 2021 May 2020 - September 2020
Yale Astro Sibs Program, <i>Grad Student Mentor &amp; Head Coordinator</i> Yale Graduate Affiliate for Ezra Stiles College, <i>Graduate Affiliate</i>	September 2020 - Present September 2022 - Present
AWARDED OBSERVING PROPOSALS	
Palomar Observatory (CWI) - 7 nights awarded (PI)  The Mass Functions of Satellites around Milky Way Analogs	Yale 2024A
Perkins Telescope Observatory (PRISM) - 4 nights awarded (CoI) Star Formation in Dwarf Galaxies as a Function of Environment	BU/PTO 2023B
Palomar Observatory (CWI) - 6 nights awarded (PI; Highest Ranked in 2023B Cycle The Mass Functions of Satellites around Milky Way Analogs	Yale 2023B
OBSERVING EXPERIENCE	
Hale Telescope (5.1 m), CWI - Palomar Observatory, California Hale Telescope (5.1 m), DBSP - Palomar Observatory, California Anglo-Australian Telescope (3.9 m), 2dF - Siding Spring Observatory, Coonabarab Hiltner Telescope (2.4 m) - MDM Observatory, Arizona	16 nights 17 nights ran 3 nights 4 nights
SERVICE	
Professional:	
Yale Astronomy Student Council, <i>Elected Representative</i> Yale Astronomy Committee on Diversity and Climate, <i>Steering Committee</i> Yale Data Science X Astronomy & Astrophysics Seminar, <i>Organizer</i> Yale GSAS Orientation, <i>Community Values Orientation Leader</i> Physics Department Faculty Hiring Committee, <i>Graduate Representative</i> Columbia Alumni Representative Committee, <i>Prospective Student Interviewer</i> AAS 237 Chambliss Poster Competition, <i>Judge</i>	2021 - Present 2022 - Present 2021 - Present 2023 2023 2021 - 2023 2021
Community:	
New Haven Science Fair, Judge	May 2023
MEDIA COVERAGE	
A Grad Student Seat at the Faculty Hiring Table, astrobites Senior Spotlight: Yasmeen Asali, the Blue and White Magazine	January 2023 May 2020
PROFESSIONAL SOCIETIES	
Astronomical Society of the Pacific (ASP)  American Astronomical Society (AAS)  American Physical Society (APS)  POD Network  Sigma Xi: The Scientific Research Honor Society	2022 - Present 2019 - Present 2019 - Present 2022 - 2023 2019 - 2021
Sigma Xi: The Scientific Research Honor Society	2019 - 2021

Association for Computing Machinery

2020 - 2021