

Jonathan Cohn

Mailing Address

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College Station, TX 77843-4242

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The Mitchell Institute for
Fundamental Physics and
Astronomy — (MIST) 313
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EDUCATION

Ph.D., Astronomy

2022 (expected)

Texas A&M University
Department of Physics and Astronomy
4242 TAMU
College Station, TX 77843-4242
Advisor: Dr. Jonelle Walsh

M.S., Astronomy

May 2019

Texas A&M University
Department of Physics and Astronomy
4242 TAMU
College Station, TX 77843-4242
Advisor: Dr. Kim-Vy Tran

B.S., Physics, *Magna Cum Laude*

May 2016

The University of Texas at Dallas
800 W Campbell Rd
Richardson, TX 75080
Advisors: Dr. Michael Kesden, Dr. Lindsay King

EXPERIENCE

Research Assistant

Summer 2017 & 2018, Spring 2019 – present

Department of Physics and Astronomy, Texas A&M University

Observations for Large Program

28 Jan – 2 Feb 2020

2.7m telescope, VIRUS-W, McDonald Observatory, Fort Davis, Texas

ALMA data reduction workshop

13 – 15 Mar 2019

National Radio Astronomy Observatory, Charlottesville, VA

Observations for MASSIVE survey

9 – 12 Apr 2018

2.7m telescope, VIRUS-P, McDonald Observatory, Fort Davis, Texas

Other observations

13 Apr 2018

2.7m telescope, VIRUS-W, McDonald Observatory, Fort Davis, Texas

Teaching Assistant — Instructor of Record

Summer 2017 – Spring 2018

Astronomy 102: Observational Astronomy
Department of Physics and Astronomy, Texas A&M University

Teaching Assistant

Fall 2016 – Spring 2017, Fall 2018

Astronomy 101: Basic Astronomy

Department of Physics and Astronomy, Texas A&M University

Undergraduate Teaching Assistant

Fall 2015 – Spring 2016

Weather & Climate

Department of Physics, The University of Texas at Dallas

Undergraduate Research Assistant

Summer 2015

Department of Physics, The University of Texas at Dallas

Peer-led Team Learning Super Leader

Fall 2015 – Spring 2016

PLTL Leader and Coordinator, General Chemistry I & II

Student Success Center, The University of Texas at Dallas

Peer-led Team Learning Leader

Fall 2013 – Spring 2016

PLTL Leader, General Chemistry I & II

Student Success Center, The University of Texas at Dallas

AWARDS

Undergraduate Research Award

2014 – 2015

The University of Texas at Dallas

STEM Columbia Crew Memorial Scholarship

2014 – 2015

Texas Space Grant Consortium

Academic Excellence Scholarship, Honors

2012 – 2016

The University of Texas at Dallas

PUBLICATIONS

- *Black Hole Mass Measurements of Radio Galaxies NGC 315 and NGC 4261 Using ALMA CO Observations*
B. D. Boizelle, J. L. Walsh, A. J. Barth, D. A. Buote, A. J. Baker, J. Darling, L. C. Ho, **J. Cohn**, K. M. Kabasares
The Astrophysical Journal (2021), 908, 19
- *MOSEL: Strong [OIII] 5007 Å Emitting Galaxies at ($3 < z < 4$) from the ZFOURGE Survey*
K-v H. Tran, B. Forrest, L.Y. Alcorn, T. Yuan, T. Nanayakkara, **J. Cohn**, and 10 additional authors
The Astrophysical Journal (2020), 898, 45
- *A giant galaxy in the young Universe with a massive ring*
T. Yuan, A. Elagali, I Labbé, G. G. Kacprzak, C. del P. Lagos, L. Y. Alcorn, **J. Cohn**, and 8 additional authors
Nature Astronomy (2020), 4, 957
- *MOSEL Survey: Tracking the Growth of Massive Galaxies at $2 < z < 4$ Using Kinematics and the IllustrisTNG Simulation*
A. Gupta, K-v. H. Tran, **J. Cohn**, and 13 additional authors
The Astrophysical Journal (2020), 893, 23
- *A Tale of Two Clusters: An Analysis of Gas-phase Metallicity and Nebular Gas Conditions in Proto-cluster Galaxies at $z \sim 2$*

- L. Y. Alcorn, A. Gupta, K-V. H. Tran, G. G. Kacprzak, T. Yuan, **J. Cohn**, and 9 additional authors
The Astrophysical Journal (2019), 883, 153
- ZFOURGE: *Extreme 5007 Å emission may be a common early-lifetime phase for star-forming galaxies at $z > 2.5$*
J. Cohn, J. Leja, K-v. H. Tran, and 12 additional authors
The Astrophysical Journal (2018), 869, 141
 - ZFOURGE: *Using Composite Spectral Energy Distributions to Characterize Galaxy Populations at $1 < z < 4$*
B. Forrest, K-v.H. Tran, A. Broussard, **J. Cohn**, and 11 additional authors
The Astrophysical Journal (2018), 863, 131
 - *Detecting binarity of GW150914-like lenses in gravitational microlensing events*
D.H. Eilbott, A.H. Riley, **J.H. Cohn**, M.H. Kesden, L.J. King
Monthly Notices of the Royal Astronomical Society Letters (2017), 467 (1)

CONFERENCES AND PRESENTATIONS

- 237th Meeting of the American Astronomical Society 14 Jan 2021
Talk: *Gas-dynamical mass measurement of the Supermassive Black Hole in UGC 2698 with ALMA*
Virtual Meeting
- Supermassive Black Holes 2020 7 – 11 Dec 2020
Talk: *Gas-dynamical mass measurement of the SMBH in UGC 2698 with ALMA*
Virtual Meeting, hosted from Universidad de Concepción, Chile
- 2020 Texas A&M Astronomy Symposium 17 Aug 2020
Talk: *Gas-dynamical mass measurement of the Supermassive Black Hole in UGC 2698*
Virtual Meeting, hosted from Texas A&M University, College Station, TX
- IAU Symposium 359: GALFEED 2 – 6 Mar 2020
(Galaxy Evolution and Feedback Across Different Environments)
Poster and flash talk: *Gas-dynamical mass of the supermassive black hole in UGC 2698*
Bento Gonçalves, Rio Grande do Sul, Brazil
- 2019 Frank N. Bash Symposium 21 – 23 Oct 2019
Poster and flash talk: *Gas-dynamical mass of the supermassive black hole in UGC 2698*
The University of Texas at Austin, Austin, TX
- 2019 Texas A&M Astronomy Symposium 23 Aug 2019
Talk: *Estimating the masses of supermassive black holes in compact elliptical galaxies*
Texas A&M University, College Station, TX
- Understanding emission-line galaxies for the next generation of cosmological surveys 5 Sept 2018
Talk: *ZFOURGE: Extreme 5007 Å emission may be a common early-lifetime phase for star-forming galaxies at $z > 2.5$*
Centro de Estudios de Física del Cosmos de Aragón, Teruel, Spain
- 2018 Texas A&M Astronomy Symposium 24 Aug 2018
Talk: *Extreme emission may be a common early-lifetime phase for star-forming galaxies at $z > 2.5$*
Texas A&M University, College Station, TX
- 231st Meeting of the American Astronomical Society 9 Jan 2018
Talk: *Star Formation Histories of Extreme Emission Line Galaxies at $z \sim 3.5$ in the ZFOURGE Survey*
Washington, DC
- Plumbing Star Formation Rates in the Age of JWST 1 Nov 2017
Talk: *Star Formation Histories of Extreme Emission Line Galaxies at $z \sim 3.5$ in the ZFOURGE Survey*
Texas A&M University, College Station, TX

- 2017 Frank N. Bash Symposium 23 – 25 Oct 2017
Poster and flash talk: *Star Formation Histories of Extreme Emission Line Galaxies at $z \sim 3.5$ in the ZFOURGE Survey*
The University of Texas at Austin, Austin, TX
- Fall 2017 Joint Meeting of the Texas Section of the APS 20 Oct 2017
Talk: *Star Formation Histories of Extreme Emission Line Galaxies at $z \sim 3.5$ in the ZFOURGE Survey*
The University of Texas at Dallas, Richardson, TX
- 2017 Texas A&M Astronomy Symposium 25 Aug 2017
Talk: *Properties of Extreme Emission Line Galaxies in ZFOURGE from Prospector- α*
Texas A&M University, College Station, TX
- 2016 ZFOURGE Team meeting 24-28 Oct 2016
Talk: *Extreme emission-line galaxy properties*
Magnolia, TX
- 2016 Texas A&M Astronomy Symposium 26 Aug 2016
Talk: *Detectability of GW150914-like events by gravitational microlensing*
Texas A&M University, College Station, TX
- Fall 2015 Joint Meeting of the Texas Section of the APS 30 Oct 2015
Talk: *Gravitational microlensing by binary black holes*
Baylor University, Waco, TX
- The University of Texas at Dallas Undergraduate Research Poster Competition 7 Apr 2015
Poster: *Gravitational microlensing by binary black holes*
The University of Texas at Dallas, Richardson, TX

MEMBERSHIPS

American Astronomical Society
Sigma Pi Sigma Physics Honor Society

MENTORSHIP

Mentoring and Advising Graduates in an Inclusive Community Program founder, coordinator, & primary mentor Fall 2019 — present
Texas A&M University, Department of Physics & Astronomy

Discover, Explore, and Enjoy Physics and Engineering (DEEP) Astronomy Team Mentor Fall 2017 — present
Texas A&M University, Department of Physics & Astronomy

OUTREACH AND VOLUNTEER WORK

TAMU Astronomy Graduate Handbook Lead writer Spring 2021
Texas A&M University, Department of Physics & Astronomy

TAMU Astronomy Group Website Design and write website for prospective and incoming graduate students Spring 2021
Texas A&M University, Department of Physics & Astronomy

Conferences for Undergraduate Women in Physics at TAMU Panel moderator, poster session judge, volunteer Texas A&M University, Department of Physics & Astronomy	17 – 19 Jan 2020
Letters to a Pre-Scientist Scientist pen-pal	Fall 2018 — Spring 2020
Astronomy on Tap BCS, invited speaker & panelist Panel: <i>Answering YOUR Burning Questions</i> Talk: <i>Here Be Dragons Aliens: The Unsolved Equation</i> Talk: <i>Chasing the Event Horizon</i> Talk: <i>From Earth to the Stars</i> Bryan, TX	13 Dec. 2018, 11 Sep. 2019, 15 Jan. 2020 11 Oct. 2018 17 Jul. 2019 16. Sep. 2020
Astronomy on Tap BCS Chapter co-founder, host, & organizer Bryan, TX	Apr. 2018 — present
Discover, Explore, and Enjoy Physics and Engineering (DEEP) Physics Shows Design, build, and present physics, engineering, and astronomy demonstrations Texas A&M University, Department of Physics & Astronomy	Fall 2017 — present
Texas A&M Physics & Engineering Festival Texas A&M University, Department of Physics & Astronomy	Apr. 2017, Apr. 2018
Public Star Parties Texas A&M University, Department of Physics & Astronomy	Spring 2017
Dallas Arboretum: Earth Day UT Dallas Society of Physics Students	Apr. 2015
Dallas Arboretum: The Joy of Science UT Dallas Society of Physics Students	Apr. 2014
UT Dallas Society of Physics Students, Secretary & Vice President The University of Texas at Dallas	Fall 2013 — Spring 2016
27th Texas Symposium on Relativistic Astrophysics The University of Texas at Dallas, Department of Physics	Dec. 2013
Alpha Phi Omega Math & Science Camp The University of Texas at Dallas, Department of Physics	Oct. 2013

SKILLS

Data & modeling: MCMC, nested sampling, computer clusters

Fluent: python, L^AT_EX, git

Experience with: html, IDL, Bash, R, casa, SQL, iraf, SLURM, LSF, virtual machines