

CONTACT INFORMATION	Department of Physics University of Texas at Austin 2515 Speedway, Austin, TX 78712	E-mail: <a href="mailto:ngalitzki@utexas.edu">ngalitzki@utexas.edu</a> WWW: <a href="http://www.ngalitzki.com">www.ngalitzki.com</a>
RESEARCH INTERESTS	<b>Experimental cosmology, astrophysical instrumentation, data analysis, polarimetry, cosmic microwave background, interstellar medium, dust, cryogenics, balloon-borne telescopes</b>	
EDUCATION	<b>The University of Pennsylvania</b> , Philadelphia, PA Ph.D., Physics and Astronomy	<b>Aug. 2016</b>
	<ul style="list-style-type: none"> <li>• <i>Magnetic Fields in Molecular Clouds: The BLASTPol<sup>1</sup> and BLAST-TNG<sup>2</sup> Experiments</i></li> <li>• Adviser: Prof. Mark Devlin</li> </ul>	
	<b>California Institute of Technology</b> , Pasadena, CA B.S., Astrophysics	<b>June 2008</b>
RESEARCH POSITIONS	<b>University of Texas at Austin</b> , Austin, TX <i>Assistant Professor, Department of Physics</i>	<b>Aug. 2022 - Present</b>
	<b>Fulbright Scholar Program</b> , Santiago, Chile <i>Postdoctoral Fulbright Scholar</i>	<b>Jan. 2022 - May 2022</b>
	<ul style="list-style-type: none"> <li>• Developing a drone-based polarized calibration technique for millimeter telescopes with Prof. Rolando Dünner Paella at Pontificia Universidad Católica de Chile.</li> </ul>	
	<b>University of California San Diego</b> , La Jolla, CA <i>Simons Observatory Postdoctoral Scholar</i>	<b>Sept. 2016 - July 2022</b>
	<ul style="list-style-type: none"> <li>• Simons Observatory leader for camera design, integration, and testing.</li> <li>• Simons Observatory systematic studies, data acquisition, and analysis.</li> <li>• BLAST-TNG flight preparations and Antarctic deployment.</li> </ul>	
	<b>University of Pennsylvania</b> , Philadelphia, PA <i>Graduate Student</i>	<b>Sept. 2010 - May 2016</b>
	<ul style="list-style-type: none"> <li>• BLAST-TNG leader for liquid helium camera design, integration, and testing.</li> <li>• BLASTPol data reduction and analysis.</li> <li>• BLASTPol commissioning, testing, and Antarctic launch.</li> </ul>	
	<b>California Institute of Technology</b> , Pasadena, CA <i>Undergraduate Researcher</i>	<b>Jun. 2006 - Jun. 2008</b>
FELLOWSHIPS AND AWARDS	<b>PI Launchpad</b> <i>2021 Virtual PI Launchpad Participant</i>	<b>June 2021</b>
	<ul style="list-style-type: none"> <li>• Selected for the workshop which trains potential PIs to navigate the flight mission proposal process.</li> <li>• Organized by the NASA SMD, the Heising-Simons Foundation, and the University of Arizona.</li> </ul>	
	<b>Fulbright Scholar Program</b> <i>Fulbright Postdoctoral Scholar Award</i>	<b>Selected Feb. 2020</b>
	<ul style="list-style-type: none"> <li>• Awarded for 2020/2021 grant cycle, completed Jan. to May, 2022.</li> </ul>	
	<b>University of Pennsylvania</b> , Philadelphia, PA <i>School of Arts and Sciences Dissertation Completion Fellowship</i>	<b>Sept. 2015 - May 2016</b>
	<b>American Astronomical Society (AAS)</b> <i>Astronomy Ambassador</i>	<b>Jan. 2015</b>

<sup>1</sup>BLASTPol: The Balloon-borne Large Aperture Submillimeter Telescope for Polarimetry

<sup>2</sup>BLAST-TNG: The Balloon-borne Large Aperture Submillimeter Telescope - The Next Generation

RECENT PROFESSIONAL TALKS	2025 Scientific Ballooning Technologies Workshop, Minneapolis, MN <i>Hooked on Liquid Helium: Pathways to Alternatives</i>	May 2025
	<b>Invited</b> , MIT Kavli Institute for Astrophysics and Space Research, Boston, MA <i>Probing the beginning of the universe with precision microwave polarimetry observations</i>	April 2025
	<b>Invited</b> , Weinberg Inaugural Conference, Austin, TX <i>Experimental Cosmology at UT Austin: Probing the beginning of the Universe with the Simons Observatory</i>	Nov. 2024
	SPIE Astronomical Telescopes + Instrumentation, Yokohama, Japan <i>The Balloon-Borne Large Aperture Submillimeter Telescope Observatory (BLAST Observatory)</i>	June 2024
	National Radio Science Meeting, Boulder, CO <i>The Design and Validation of the Simons Observatory Cryogenic Receivers</i>	Jan. 2023
	SPIE Astronomical Telescopes + Instrumentation, Montreal, Canada <i>The Simons Observatory: Development and validation of the first Small Aperture Telescope, SAT-MF1</i>	July 2022
	From Planck to the Future of CMB, Ferrara, Italy <i>The Characterization and Calibration of the Simons Observatory Small Aperture Telescope: Status and future plans</i>	May 2022
	<b>Invited</b> , University of Texas at Austin, Dept. of Physics Colloquium, Virtual <i>The Simons Observatory, CMB-S4, and BLAST: Probing the beginning of the Universe with precision polarimetry experiments</i>	Jan. 2022
	2021 Scientific Ballooning Technologies Workshop, Virtual <i>The Enabling Technology Instrument</i>	May 2021
	<b>Invited</b> , Cornell University LEPP Seminar, Virtual <i>The Simons, BLAST, and CCAT Observatories: Probing the beginning of the Universe with precision polarimetry experiments</i>	Jan. 2021
	237th Meeting of the American Astronomical Society, Virtual <i>The Simons Observatory: the Small Aperture Telescopes (SATs)</i>	Jan. 2021
	<b>Invited</b> , San Diego Astronomy Association Monthly Meeting, Virtual <i>The Microwave Telescopes of the Simons Observatory</i>	Aug. 2020
	<b>Invited</b> , University of California Riverside Dept. of Physics and Astronomy Seminar, Virtual <i>The Simons Observatory and BLAST-TNG: Probing the beginning of the Universe with precision polarimetry experiments</i>	May. 2020
	<b>Invited</b> , University of Iowa Dept. of Physics and Astronomy Colloquium, Iowa City, IA <i>The Simons Observatory and BLAST-TNG: Probing the beginning of the Universe with precision polarimetry experiments</i>	Feb. 2020
	<b>Invited</b> , Cardiff University Seminar, Cardiff, UK <i>Forethought for foregrounds: Next steps in precision cosmology with the Simons Observatory and BLAST-TNG</i>	Sept. 2019
	<b>Invited</b> , Midwest Magnetic Fields Meeting 2019, Madison, WI <i>Dust polarimetry of the interstellar medium with the Simons Observatory and BLAST-TNG</i>	May 2019
	233rd Meeting of the American Astronomical Society, Seattle, WA <i>BLAST-TNG: Antarctic pre-flight integration</i>	Jan. 2019
	<b>Invited</b> , University of Southern California Colloquium, Los Angeles, CA <i>Forethought for foregrounds: Next steps in precision cosmology</i>	Sept. 2018
	SPIE Astronomical Telescopes + Instrumentation, Austin, TX <i>The Simons Observatory: Instrument Overview</i>	Jun. 2018

#### PROFESSIONAL **Simons Observatory Collaboration**

SERVICE	Chilean Joint Implementation Committee member. Science organizing committee member Education and public engagement committee co-leader. Local organizing committee member.	Nov. 2023 - Present July 2025 Sept. 2016 - Oct. 2020 Jun. 2017
---------	---	---

<b>CMB-S4 Collaboration</b>		
Governing Board Member	<b>July 2023 - July 2025</b>	
Education and Public Outreach Committee member.	<b>Aug. 2020 - Aug. 2025</b>	
Local organizing committee member.	<b>Oct. 2019</b>	
<b>UCSD Physics Department</b>		
Education and Public Outreach Committee member.	<b>Aug. 2018 - 2021</b>	
<b>PROFESSIONAL CMB-S4 Collaboration</b>	<b>2018 - Present</b>	
<b>MEMBERSHIP</b>		
<b>Simons Observatory Collaboration</b>	<b>2016 - Present</b>	
<b>American Astronomical Society</b>	<b>2015 - Present</b>	
<b>SPIE: The international society for optics and photonics</b>	<b>2014 - Present</b>	
<b>BLAST Collaboration</b>	<b>2012 - Present</b>	
<b>MENTORING</b>		
<b>University of Texas at Austin</b> , Austin, TX		
<i>Postdocs</i>	<b>Nov. 2023 - Present</b>	
Elle Shaw		
<i>Graduate Students</i>		
Tannishtha Nandi	<b>Aug. 2024 - Present</b>	
JB LLoyd	<b>Aug. 2024 - Present</b>	
Daniel Lee	<b>Aug. 2023 - Present</b>	
Henry Nachman	<b>Aug. 2023 - Present</b>	
<i>Undergraduate Researchers</i>		
Ani Pagni	<b>May 2025 - Present</b>	
Oorie Desai	<b>Feb. 2024 - Present</b>	
Quinlin Sandefer	<b>Aug. 2022 - May 2023</b>	
<b>University of California San Diego</b> , La Jolla, CA		
<i>Graduate Students</i>		
Bryce Bixler, <i>UCSD</i>	<b>Jan. 2020 - July 2022</b>	
Kaiwen Zheng, <i>Princeton University</i>	<b>Jan. 2020 - Dec. 2020</b>	
• Mentee within the Simons Observatory Mentorship Program.		
Michael Randall, <i>UCSD</i>	<b>June 2019 - July 2022</b>	
Ningfeng Zhu, <i>University of Pennsylvania</i>	<b>Jan. 2018 - Dec. 2021</b>	
• Mentee within the Simons Observatory Mentorship Program.		
Jacob Spisak, <i>UCSD</i>	<b>June 2018 - Aug. 2021</b>	
Tran Tsan, <i>UCSD</i>	<b>Sept. 2017 - July 2022</b>	
Joseph Seibert, <i>UCSD</i>	<b>Sept. 2017 - July 2022</b>	
Maximiliano Silva-feaver, <i>UCSD</i>	<b>Sept. 2016 - July 2022</b>	
<i>Research Assistants</i>		
Joseph Rodriguez, <i>UCSD</i>	<b>Nov. 2019 - Mar. 2020</b>	
Christopher Ellis, <i>UCSD</i>	<b>June 2019 - June 2020</b>	
Kevin Crowley, <i>UCSD</i>	<b>Sept. 2016 - June 2018</b>	
<i>Undergraduate Researchers</i>		
Tanah Bua, <i>Pomona College</i>	<b>Aug. 2021 - Jan. 2022</b>	
Ethan Wadhwa, <i>UCSD</i>	<b>Aug. 2021 - Jan. 2022</b>	
Hakob Abajian, <i>UCSD</i>	<b>June 2019 - Dec. 2019</b>	
Tamar Ervin, <i>University of Southern California</i>	<b>July 2019 - Sept. 2019</b>	
Logan Foote, <i>University of California Berkeley</i>	<b>June 2019 - Aug. 2019</b>	
<b>University of Pennsylvania</b> , Philadelphia, PA		
Mark Giovinazzi, <i>Undergraduate, Drexel University</i>	<b>Jan. 2015 - May 2016</b>	
Timothy McSorley, <i>Undergraduate, Drexel University</i>	<b>Jan. 2015 - May 2016</b>	

TEACHING EXPERIENCE	<b>University of Texas at Austin</b> , Austin, TX	
	<i>PHY386K: The Physics of Sensors</i>	<b>SP2026</b>
	<i>CNS Expert Teaching Assessment Program</i>	<b>Aug. 2025 - Present</b>
	• Provides teaching assessment training to faculty followed by observations of colleague's teaching to generate feedback as part of the advancement process.	
	<i>PHY353L: Modern Lab</i>	<b>FA2025</b>
	<i>PHY386K: The Physics of Sensors</i>	<b>SP2025</b>
	<i>PHY303L: Engineering Physics II</i>	<b>FA2024</b>
	<i>Mentoring Mindset Initiative</i>	<b>Jan. 2024 - Dec. 2024</b>
	• Program to introduce faculty members to evidence based teaching practices for introductory physics courses.	
	<i>PHY301: Mechanics</i>	<b>FA2023</b>
PUBLIC ENGAGEMENT	<i>PHY380N: Experimental Physics</i>	<b>Aug. 2023 - Dec. 2024</b>
	• Advised three student projects with my lab.	
	<i>PHY303L: Engineering Physics II</i>	<b>FA2022</b>
	<i>Various guest lectures on experimental cosmology</i>	<b>Aug. 2022 - Present</b>
	<b>University of California San Diego</b> , La Jolla, CA	
	<i>PHYS 162 - Cosmology Guest Lecture</i>	<b>May 12, 2021</b>
	<b>The Center for Engaged Teaching</b> , La Jolla, CA	
	<i>Introduction to College Teaching</i>	<b>Oct. 2017 - Dec. 2017</b>
	• Developed expertise in evidence-based teaching practices that support student learning.	
	<b>The Netter Center</b> , Philadelphia, PA	
PUBLIC ENGAGEMENT	<i>The Netter Center Astronomy Curriculum Chair</i>	<b>Aug. 2015 - May 2016</b>
	• Developed a 12 Lesson Astronomy Curriculum for an under-served inner-city high school.	
	• Mentored undergraduate student volunteers who assisted in teaching the course.	
	<b>iPraxis</b> , Philadelphia, PA	
	<i>iPraxis Afterschool Class Mentor</i>	<b>Jan. 2015 - May 2015</b>
	<b>University of Pennsylvania</b> , Philadelphia, PA	
	<i>Teaching Assistant</i>	<b>Jan. 2013 - May 2013</b>
	• Phys 101: General Physics: Mechanics, Heat, and Sound	
	<i>Teaching Assistant Aug. 2011 - Dec. 2011, Jan. 2012 - May 2012, Aug. 2012 - Dec. 2012, Aug. 2013 - Dec. 2013</i>	<b>Aug. 2011 - Dec. 2013</b>
	• Astr 001: Survey of the Universe	
PUBLIC ENGAGEMENT	<i>Center for Teaching and Learning</i>	<b>Aug. 2012</b>
	• Teaching Assistant Training Workshop Leader	
	• Responsible for training new teaching assistants for the School of Arts and Sciences.	
	<i>Teaching Assistant</i>	<b>Aug. 2010 - Dec. 2010</b>
	• Phys 101 and Phys 102 - Laboratory	
	<b>The University of Texas at Austin</b>	
	Article: <i>Big Bang Vision: Exploring the Cosmic Microwave Background at Simons Observatory</i>	<b>June 2025</b>
	Article: <i>Simons Observatory blazes toward understanding our Universe's birth</i>	<b>2024</b>
	Article: <i>Postcards from the Field: First Light for a New High-Desert Telescope</i>	<b>April 2024</b>

**University of California San Diego***The Cosmos Show Co-Host***June 2021 - Dec. 2022**

- Co-Host of public engagement Youtube channel with biweekly live shows supported by Wyoming Stargazing.

*Astronomy on Tap San Diego Co-Lead***Aug. 2017 - April 2020***Comicon panel member, "Putting more science in your fiction" July 2017, 2018, 2019, 2020(Remote)*

- Invited by the STEM advocacy group "The League of Extraordinary Scientists and Engineers."

*San Diego Festival of Science and Engineering - Sponsored Booth***March 2017, 2018, 2019, 2020**

- Primary organizer for the physics department's booth.

*Skype a Scientist***Jan. 2017 - Jan. 2018***Fleet Science Center - #2Scientists***Sept. 2016 - Feb. 2020**

- Members of the public ask participating scientists a wide range of science questions.

*San Diego area public talks***Sept. 2016 - Jan. 2022**

- Occurred once per quarter on average.

*San Diego Astronomy Association***Sept. 2016 - Jan. 2022****University of Pennsylvania***Department of Physics and Astronomy - Public Astronomy Nights***Sept. 2011 - May 2016***Philadelphia Science Festival - Science Carnival Sponsored Booth***May 2015, May 2016**

- Organized the Department of Physics and Astronomy's demonstration booth.