

Daniel C. Jacobs

ASU School of Earth and Space Exploration PO Box 876004 Tempe, AZ 85287-6004
daniel.c.jacobs@asu.edu • +1 (215) 280-7357 • <http://danielcjacobs.com>

RESEARCH THEMES

Cosmological scale astrophysics with a particular focus on the epoch of reionization and cosmic dawn.

Low frequency radio astronomy and instrumentation.

Cubesats for astronomy

Involvement of students in hands-on development of instrumentation.

EDUCATION

Doctor of Philosophy (Ph.D.) in Physics and Astronomy Sep 2011

- University of Pennsylvania, Philadelphia, Pennsylvania, USA
 - Thesis: The Epoch of Reionization: Foregrounds and Calibration with PAPER
 - Adviser: Prof. James Aguirre

Master of Science (M.Sc.) in Physics Dec 2008

- Montana State University, Bozeman, MT, USA

Bachelor of Science (B.S.) in Physics and Astrophysics May 2004

- New Mexico Tech, Socorro, New Mexico, USA

POSITIONS

Arizona State University, School of Earth and Space Exploration

- Assistant Professor Oct 2017 – Present
- National Science Foundation Astronomy and Astrophysics Research Fellow 2014 – 2017
- Postdoc 2011 – 2014

GRANTS

Funding by the National Science Foundation

- *Hydrogen Epoch of Reionization Array* 2019 – 2024
 - NSF Midscale Instrumentation Program , \$15M total, \$1M ASU
- *Precision Beam Mapping for 21cm Cosmology* 2017– 2020
 - Advanced Technologies and Instrumentation (ATI) AST-1711179, 339,065
- *Hydrogen Epoch of Reionization Array* 2016 – 2020
 - NSF Midscale Instrumentation Program , \$9.5M total, \$620,438 ASU
- *Collaborative Research: From 21 cm Observations to Precision Reionization Science* 2016 – 2019
 - Astronomy and Astrophysics Research Grants (AAG), AST-1613973, \$240,228
- *Observing the Epoch of Reionization with the Murchison Widefield Array* 2014 – 2017
 - Astronomy and Astrophysics Research Grants (AAG), AST-1410719, \$201,366
- *An External Calibrator for Hydrogen Observatories* 2014 – 2016
 - Advanced Technologies and Instrumentation (ATI) AST-1407646, \$99,287 *
- *Charting the history of reionization with the first 21cm observations* 2014 – 2017
 - Astronomy and Astrophysics Postdoctoral Fellowship (AAPF), AST-1401708, \$258,000

Funding by Industry

- *Scaling up 21cm analysis pipelines for the Square Kilometer Array* 2015–
 - Amazon Web Services/SKA Partnership, \$10,000

Funding by NASA

- *Star-Planet Astronomy Research CubeSat (SPARCS)* 2018 – 2023
 - NASA Astrophysics Research Analysis , \$5.4M

Funding by JPL

- *Backend Development and Testing of the ASU Smallsat Groundstation* 2017 2019 JPL Strategic University Research Program, \$28,000

PROJECTS

Hydrogen Epoch of Reionization Array, 2013 (inception) – Present
<https://reionization.org>

Precision Array for Probing the Epoch of Reionization, 2009 – Present
<http://eor.berkeley.edu>

	Murchison Widefield Array http://mwatelescope.org	2011 – Present
	Star Planet Activity Research Cubesat (SPARCS)	2017 – Present
	External Calibrator for Hydrogen Observatories	2013 – Present
PROFESSIONAL AFFILIATIONS & ACTIVITIES	American Physical Society , Maryland, USA	2002 – Present
	Sigma Pi Sigma , Maryland, USA	2004 – Present
	American Astronomical Society , Washington D.C., USA	2009 – Present
TEACHING & MENTORING	Astronomy and Astronomy Lab (online) (AST 111/113)	2020
	Practical Electronics and Instrumentation (SES330)	2019
	Exploration Systems Engineering (SES405)	2019
	Practical Electronics and Instrumentation (SES330)	2018
	Exploration Systems Engineering (SES405)	2018
	Capstone Mentor School of Earth and Space Exploration	2018
	Cubesat Lab Seminar	2017
	Capstone Mentor ASU School of Computing	2015
	Lecturer Santa Fe Cosmology Summer School	2015
	Guest Lecturer ASU AST-531, Galaxies and Cosmology	2014
	Lecturer Santa Fe Cosmology Summer School	2014
	Guest Lecturer ASU AST-112, Intro to Stars, Galaxies, and Cosmology	2013
	Guest Lecturer MSU PHSX 520, Electricity and Magnetism II (Jackson)	2008
	Project Manager/Student Mentor	2005– 2009
	Montana State University, Space Science and Engineering Lab.	
	<ul style="list-style-type: none"> ▪ Managed program and lead students to design, build, and fly their own space hardware. ▪ Three successful funding proposals, and two NASA launch manifests. ▪ Mentored 40+ students 	
	Teaching Assistant MSU PHSX 205, College Physics	2004
GRAD STUDENTS	Mrudula Gopal-Krishna, Exploration Systems Design Instrumentation -	Started Jan 2019
	Lindsay Berkhout, Exploration Systems Design Instrumentation -	Started Aug 2019
THESIS COMMITTEES	<ul style="list-style-type: none"> • Kirk Bennett • Santosh Harish • Edward Buie II • Tyler Richey-Yowell • Cassie Whitton • Chris DuBuis • Logan Jenson 	<p>Started Aug 2015</p> <p>Started Aug 2016</p> <p>Started Aug 2017</p> <p>Started Aug 2017</p> <p>Started Aug 2018</p> <p>Started Aug 2018</p> <p>Started Aug 2018</p>
	Graduated	
	<ul style="list-style-type: none"> • Piyanat Kittiwisit – ASU SESE, Now Postdoc at UKZN • Sam Gorden – ASU SESE, Now at Systems and Technology Research • Alex Miller – ASU SESE, Now at Worldview • Matthew Kolopanis – ASU Physics (currently ASU postdoc) 	<p>Graduated 2018</p> <p>Graduated 2018</p> <p>Graduated 2018</p> <p>Graduated 2018</p>
CURRENT UNDERGRADS	Tyler Cox - ASU SESE + Physics	
	Lily Whitler - ASU Physics	
	Shane Bechtel - ASU SESE	
	David Lewis - ASU SESE	
	Shanika Davis - ASU EE	
FORMER UNDERGRADS	Lauren Turner – ASU SESE - ECHO	
	Michael Horn – ASU SESE - ECHO (Space Grant Fellow)	
	Jacob Burba – ASU Physics 2016 – Now at Brown for Physics PhD	
	Michael Busch – Graduated ASU, SESE – Now at Johns-Hopkins for Astronomy PhD	

Ben Stinnett – Graduated ASU SESE*, now at Lyft Inc.
 Jay Allison – Graduated, ASU SESE 2015 – Currently at Raytheon
 Mason Denney – Graduated, ASU SESE 2016
 David Nelson – SESE – 1991-2014
 Victoria Serrano – Graduated ASU Master’s in Electrical Engineering, 2016
 Jose Chavez – Graduated 2015, ASU Physics, now at Intel
 Marc Leatham – Graduated 2017, ASU SESE
 Victoria Serrano – Engineering Masters, now a lecturer at Universidad Tecnológica de Panamá
 40+ undergraduates at Montana State University, Space Science and Engineering Lab
 10 students in ASU School of Computing capstone course

**CURRENT
POSTDOCS**

Adam Beardsley - NSF Fellow
 Bharat Kumar-Gholap
 Steven Murray
 Matt Kolopanis

**COMMUNITY
SERVICE**

- **NRAO CASA Users Committee**
 - Chair 2016
 - Member 2014– 2017
- **NSF Ad Hoc reviewer** 2016
- **Astrophysical Journal Reviewer** reviewed 8 papers 2015-Present
- **European Astrophysics Research Council - Ad hoc reviewer** 2016
- **NSF Review Board** 2018– 2019

**UNIVERSITY
SERVICE**

- Interplanetary Initiative - Lab Development 2017 – present
- Director SESE Ground Station 2018–present
- SESE Space and Safety Committee 2017– 2017
- SESE Curriculum Development Committee 2017– 2018

**PROFESSIONAL
DEVELOPMENT**

- **Association of College and University Educators (ACUE)** - Effective Teaching Practices (2018-2019)
- **ASU Space Cohort** - NASA Development Workshop, 30 Jan 2020

**INTERDISCIPLINARY
PROJECTS**

Things in this category don’t quite fit anywhere else but are notable contributions to the school, department and community.

- **Phoenix Cubesat** This is a student powered, faculty advised thermal remote imaging satellite started in 2016, I began advising. Some facts:
 - It is ASU’s first cubesat.
 - Delivered to NASA August 2019
 - Launch to ISS scheduled Nov 9, deployment in January or February.
 - Developing UHF/VHF ground station
- **ASU Ground Station**
 - The ASU Ground station is a project in collaboration between SESE, Newspace, and JPL as an experiment to provide limited additional Deep Space Network capability for cubesats and other high risk missions.
 - installation of a dish, pointing system, and related power, radio electronics 2017
 - I became project Director, successfully proposed for year 3 of a SURP 2018
 - Development of an open source Deep Space Network radio. 2019
- **Interplanetary Lab**

The II Lab was proposed as a space for student projects with industry involvement which address the areas of interest to the Interplanetary Initiative. I have worked with the ASU architects to set specifications for the space, to purchase equipment, hire staff, and work with the contractors during construction.

 - Project Definition 2017
 - Construction 2018 – 2019

*School of Earth and Space Exploration

- Grand Opening
- **Interplanetary Initiative Pilot 2 - 5 Senses in Space.**
 - Led the conceptualization of the senses outreach project as immersive experience and in the early days, helped with the build.
 - With the support of IL, NewSpace, and SESE the Pilot project partnered with Blue Origin to fly three student payloads on a suborbital test flight. A competition was held for student teams with received 6 entries. I mentored and guided two teams of these teams through to a successful award. One team was entirely remote! Working with each other over the internet using video chat and FedEx to send parts around. The other was a SESE capstone. Both teams delivered and flew.
 - Interplanetary Initiative Pilot 15 SIMOC (led by Kai Staats) is a computer model of close community ecosystems which lives at the interSection of research, citizen science and formal learning. I was an advocate for this pilot during the initial Pilot proposal process and continue to advise on research questions and help seeking external funding.

- **ASU Capstones**

Advising capstones is a significant contact point between faculty and students. Each capstone usually has 4-8 students.

- Lightcube - Aerospace 2019
- Moonbounce - SESE 2019
- SCAM - SESE - 2018
- BEES - EE - 2018
- Big Data Archiving Interface - CS - 2015

STUDENT PROGRAMS

I run several programs which get students involved in research.

- **ASU Radio Astronomy Bootcamp** A week-long night class in radio interferometry with lectures and hands-on tutorials with real VLA and HERA data.
 - Attendance: 12 students from SESE, Physics and Aerospace 2018
 - Attendance: 15 students from SESE and Physics 2019

- **Research experience for Non-Traditional Students (RENTU)**

Undergraduate research is an essential component in preparing students both for graduate school or for a position in the broader STEM workforce. Students often get their keystone research experience through summer REU programs, which involve travel to a new location and support through a relatively small stipend. These aspects of REUs are out of reach to some non-traditional students, who often have jobs and families to support at home. RENTU provides highly qualified students from non-traditional academic backgrounds the same research opportunities available through REUs. RENTU mentors identify student candidates and design a research experience in 21 cm cosmology that can meet their schedules, obligations, and financial needs. Providing this kind of research experience to non-traditional undergraduate students will enable more of them to go on to graduate school, increasing the diversity of the broader STEM community.

RENTU 2019

- David Lewis - Senior, SESE
- Shanika Davis - Junior, EE
- Bryanna Gutierrez-Coatney - Junior, SESE
- Ruben Ortiz - Junior, SESE

RENTU 2018

- David Lewis - Junior, SESE
- Karishma Albal - Sophomore SESE
- Edgar Escalante - Senior, SESE

- **HERA Summer Internship**

The CHAMP program is a partnership between the HERA project and the California CAMPARE bridge program which gets minority students from California State University and community college campuses involved in research. CAMPARE has been highly successful at increasing numbers of minorities in astronomy and physics graduate programs. CHAMP matches students with a summer research experience with a participating HERA institution. Students are prepared for a challenging summer at a weeklong "bootcamp" put on by the HERA collaboration.

- Organizing the CHAMP bootcamp and parallel collaboration science meeting at St John's College, Santa Fe, NM (2018 and 2019)
- Hosted 3 summer students.

ASU CHAMP Students 2018

- Katherine Elder - CSU Fresno
- Jean Donet - San Jose State
- Sean Morgan - San Francisco State University

MEETINGS ORGANIZED	▪ Science at Low Frequencies, ASU	2019
	▪ HERA Bootcamp, St John's College	2019
	▪ HERA Annual Meeting, ASU	2018
	▪ HERA Bootcamp, St John's College	2018
	▪ Science at Low Frequencies, ASU	2015
TALKS	INVITED TALKS	
	New Instrument Double Header: 21 cm Cosmology with HERA and M-Dwarf Flares with the SPARCS Cubesat	Oct 2018
	Invited Colloquium, University of Pennsylvania, Philadelphia, PA	
	Low Frequency 21cm cosmology Experiment Review	Feb 2018
	Invited Review, Aspen Center for Physics, Aspen, CO	
	High redshift 21cm intensity mapping Past, Present, and Future	Feb 2018
	Kavli Institute for Cosmological Physics	
	Chasing our Cosmic Dawn with HERA	Feb 2017
	University of Missouri, Columbia, MO	
	Chasing our Cosmic Dawn with HERA	Feb 2017
	University of Wisconsin, Madison, WI	
	Chasing our Cosmic Dawn with HERA	Jan 2017
	University of Toronto, Toronto, Canada	
	New Horizons in Astrophysics: Exoplanets and the Cosmic Dawn,	Sep 2016
	Invited Colloquium School of Earth and Space Exploration, Tempe, AZ	
	HERA Season one data report,	Jun 2016
	Kavli HI 21cm Workshop, Cambridge UK	
	MWA Project Update,	Jun 2016
	Kavli HI 21cm Workshop, Cambridge UK	
	Progress report from the Hydrogen Epoch of Reionization Array Experiment,	Mar 2016
	Opportunities and Challenges Intensity Mapping, Stanford, Palo Alto, CA	
	Lessons learned from 21 cm experiments,	Mar 2016
	Opportunities and Challenges Intensity Mapping, Stanford, Palo Alto, CA	
	Probing the Epoch of Reionization with HERA, PAPER, and the MWA,	Feb 2016
	Yale University	
	Lecture on The Epoch of Reionization,	Mar 2015
	Santa Fe Cosmology Summer School, St. John's College	
	Colloquium: Chasing our cosmic dawn with HERA.	Feb 2015
	CCAPP, The Ohio State U.	
	Chasing our cosmic dawn with HERA.	Feb 2015
	Institute for Advanced Study	
	Chasing our cosmic dawn with HERA.	Feb 2015
	Brown University Physics Dept.	
	Chasing our cosmic dawn with HERA.	Jan 2015
	University of Illinois, Urbana-Champaign	
	Chasing our cosmic dawn with HERA.	Feb 2015
	University of Wisconsin, Madison	
	The Murchison Widefield Array Epoch of Reionization Project	Dec 2014
	<i>Early Science from Low Frequency Radio Telescopes, Tempe Az</i>	
	Lecture, Santa Fe Cosmology Summer School	Feb 2015
	St. John's College	
	LoCo1: Testing Low frequency Astronomy in Space	Jan 2014
	URSI, Boulder, CO	
	Shedding light on EoR Foregrounds with PAPER and MWA,	Jan 2014
	URSI, National Radio Science Meeting, Boulder, CO	
	Colloquium: Detecting the Epoch of Reionization with Experimental Radio Arrays	Nov 2013
	University of Wisconsin, Milwaukee	
	Methods for detecting the 3D percolation of photons in the early universe	Jan 2013
	Biomedical Astronomical Signal Processing Frontiers Workshop	
	PAPER: Status and Recent Observations	

	NRAO New Worlds New Horizons, Santa Fe, NM February 2011	Feb 2011
	The southern low frequency sky with PAPER	
	University of New Mexico, 2010	May 2010
	The Epoch of Reionization with a Precision Array	
	Santa Fe Summer Cosmology school, 10 July 2010	Jul 2010
	Astronomer in the Classroom	
	sponsored by the International Year of Astronomy, 2009	Jul 2009
	Public Lecture on the Epoch of Reionization	
	Franklin Museum, Philadelphia, PA	Jul 2009
	Explorer 1 [PRIME] Satellite Critical Design Review (flight awarded)	
	NASA Space Launch Services Site Visit, Bozeman, MT,	Apr 2009
	CONFERENCE TALKS	
	A reanalysis of PAPER-64 epoch of reionization observations at redshifts 7 to 11	Jan 2019
	American Astronomical Society, Seattle, Wa	
	Probing the Epoch of Reionization with MWA, PAPER, and HERA,	Apr 2016
	American Physical Society, April Meeting, Salt Lake City, UT	
	An External Calibrator for Hydrogen Observatories (ECHO)	Jan 2016
	Early Science for Low Frequency Radio Telescopes (Tempe Meeting II), Albuquerque, NM	
	An External Calibrator for Hydrogen Observatories (ECHO)	Jan 2016
	URSI National Radio Science Meeting, Boulder, CO	
	Multi-redshift 21 cm observations of the epoch of reionization	Jan 2015
	American Astronomical Society Annual Meeting, Seattle, WA	
	Chasing our Cosmic Dawn with the Hydrogen Epoch of Reionization Array	Jan 2015
	National Science Foundation AAPF Fellow's Symposium, Seattle	
	Development and Status of early pipelines for MWA and PAPER	Mar 2014
	AAS Exascale Radio Astronomy, Monterey CA	
	Shedding Light on Foregrounds with MWA and PAPER Data	Jan 2014
	URSI National Radio Science Meeting, Boulder, CO	
	LoCo1: Low Frequency Cosmology in Space	Jan 2014
	URSI National Radio Science Meeting, Boulder, CO	
	Comparing MWA/PAPER Instrumental Performance	Jan 2013
	American Astronomical Society, January	
	A PAPER Southern Sky Catalog	Jan 2012
	URSI National Radio Science Meeting, Boulder CO	
	Catalog and Galactic Emissions with PAPER	Feb 2010
	Aspen Winter Conference	
	Recent Results from the Precision Array for Probing the Epoch of Reionization (PAPER) Experiment in South Africa	Jan 2010
	American Astronomical Society	
	Global Positioning System on orbit	Mar 2006
	IEEE regional workshop, Big Sky, MT	
	A PAPER Low-Frequency, Wide-Bandwidth, All-Sky Radio Point Source Catalog	Jan 2009
	American Astronomical Society, Long Beach, CA	
	Explorer 1 [PRIME] A 50th anniversary reflight	Aug 2005
	Small Satellite Conference, Logan, UT	
OUTREACH	SESE ESE Day, SESE Open House, ASU Night of the Open Door	2012 – present
	<i>Radio astronomy table staffed by group members. Average of 5 events per year over 7 years.</i>	
	East Valley Astronomy Club	Apr 2018
	<i>New Horizons in astronomy: cosmology n cubesats</i>	
	Phoenix ComicCon Panels	Jun 2015
	<i>Panel: Adventures and Disasters in Science</i>	

Outreach with Star Lab	Oct 2015
Pascua Yaqui Boys and Girls Club, Mesa Prep Academy, Bioscience High School	
Science Friday	Feb 2014
<i>Probing the First Stars with Radio Arrays in the Deep Desert,</i> Tempe Center for the Arts	
Phoenix ComicCon Panels	Jun 2014
4 panels, including: SETI, Cubesats, Wait Wait Science, Adventures in Science	
Grand Awards Judge	May 2013
Intel Science and Engineering Fair	
Outreach with Star Lab	Oct 2013
Salt River Pima Maricopa Reservation	
Outreach with Radio Detectives	<i>10 appearances in the period: Jan 2012 – present</i>
School of Earth and Space Exploration Open House	
Outreach with Radio Detectives	Mar 2013
Pascua Yaqui Tribal Center	
Public Lecture	Oct 2012
ASU Open Door Night	
Astronomer in the Classroom	Oct 2010
sponsored by the International Year of Astronomy	
Physics Society Demonstration Team	2001 – 2004
New Mexico Tech, Socorro, NM	
	President 2003-2004

PUBLICATIONS

About my publication record

- Much of my work takes the form of contributions to instrument projects and is reflected in collaboration papers about their construction, analysis of instrument function, or data taken during operation. Such papers are marked **Instrument Paper**.
- I am co-author of 11 papers in 2018 and 7 papers in 2019.
- My h-index is 29, and my papers have received 3065 citations since 2010.[†]
- The publication record below lists my contribution, and student or postdoc authors.
- Journals I publish in

Journal Name	Impact Factor [‡]	CiteScore [§]
Astrophysical Journal	5.58	5.1 (88%)
Monthly Notices of the Royal Astronomical Society	5.231	4.88 (86%)
Publications of the Astronomical Society of the Pacific	4.878	3.7 (77%)
Radio Science	1.45	1.62 (71%)

PEER REVIEWED ARTICLES

- [68] Kern, Nicholas S., Parsons, Aaron R., Dillon, Joshua S., Lanman, Adam E., Liu, Adrian, Bull, Philip, Jacobs, D., et al. *Mitigating Internal Instrument Coupling For 21 Cm Cosmology. Ii. A Method Demonstration With The Hydrogen Epoch Of Reionization Array* ApJ, 888, 70, 2020
- [67] La Plante, Paul, Alvarez, Marcelo, Fialkov, Anastasia, Aguirre, James, Ali-Haïmoud, Yacine, Becker, George, Jacobs, D., et al. *Mapping Cosmic Dawn And Reionization: Challenges And Synergies* BAAS, 51, 394, 2019
- [66] Kerrigan, Joshua, La Plante, Paul, Kohn, Saul, Pober, Jonathan C., Aguirre, James, Abdurashidova, Zara, Jacobs, D., et al. *Optimizing Sparse Rfi Prediction Using Deep Learning* MNRAS, 488, 2605-2615, 2019

[†]This estimate varies depending somewhat on the citation engine. A google scholar analysis of a list curated by me is here: <https://scholar.google.com/citations?user=YRwzVwAAAAJ&hl=en> I have recently switched to NASA ADS which seems to be more accurate. A library of refereed publications can be found here https://ui.adsabs.harvard.edu/public-libraries/WtA_QcosQWuHwOgBWheanw

- [65] Liu, Adrian, Aguirre, James, Ali-Haimoud, Yacine, Alvarez, Marcelo, Beardsley, Adam, Becker, George, Jacobs, D., et al. *Cosmology With The Highly Redshifted 21 Cm Line* BAAS, 51, 63, 2019
- [64] Beardsley, A. P., Johnston-Hollitt, M., Trott, C. M., Pober, J. C., Morgan, J., Oberoi, D., Jacobs, D., et al. *Science With The Murchison Widefield Array: Phase I Results And Phase Ii Opportunities* PASA, 36, e050, 2019
- [63] Morales, Miguel F., Beardsley, Adam, Pober, Jonathan, Barry, Nichole, Hazelton, Bryna, Jacobs, Daniel, Jacobs, D., et al. *Understanding The Diversity Of 21 Cm Cosmology Analyses* MNRAS, 483, 2207-2216, 2019
- [62] Lanman, Adam, Hazelton, Bryna, Jacobs, Daniel, Kolopanis, Matthew, Pober, Jonathan, Aguirre, James et al. *Pyuvsim: A Comprehensive Simulation Package For Radio Interferometers In Python*. The Journal of Open Source Software, 4, 1234, 2019
- [61] Kohn, Saul A., Aguirre, James E., La Plante, Paul, Billings, Tashalee S., Chichura, Paul M., Fortino, Austin F., Jacobs, D., et al. *The Hera-19 Commissioning Array: Direction-Dependent Effects* ApJ, 882, 58, 2019
- [60] Kolopanis, Matthew, Jacobs, Daniel C., Cheng, Carina, Parsons, Aaron R., Kohn, Saul A., Pober, Jonathan C. et al. *A Simplified, Lossless Reanalysis Of Paper-64* ApJ, 883, 133, 2019
- [59] Barry, N., Wilensky, M., Trott, C. M., Pindor, B., Beardsley, A. P., Hazelton, B. J., Jacobs, D., et al. *Improving The Epoch Of Reionization Power Spectrum Results From Murchison Widefield Array Season 1 Observations* ApJ, 884, 1, 2019
- [58] Li, W., Pober, J. C., Barry, N., Hazelton, B. J., Morales, M. F., Trott, C. M., Jacobs, D., et al. *First Season Mwa Phase Ii Epoch Of Reionization Power Spectrum Results At Redshift 7* ApJ, 887, 141, 2019
- [57] Furlanetto, Steven, Bowman, Judd D., Mirocha, Jordan, Pober, Jonathan, Burns, Jack, Carilli, Chris L., Jacobs, D., et al. *Fundamental Cosmology In The Dark Ages With 21-Cm Line Fluctuations* BAAS, 51, 144, 2019
- [56] Furlanetto, Steven, Carilli, Chris L., Mirocha, Jordan, Aguirre, James, Ali-Haimoud, Yacine, Alvarez, Marcelo, Jacobs, D., et al. *Insights Into The Epoch Of Reionization With The Highly-Redshifted 21-Cm Line* BAAS, 51, 143, 2019
- [55] Furlanetto, Steven, Beardsley, Adam, Carilli, Chris L., Mirocha, Jordan, Aguirre, James, Ali-Haimoud, Yacine, Jacobs, D., et al. *Synergies Between Galaxy Surveys And Reionization Measurements* BAAS, 51, 142, 2019
- [54] Cooray, Asantha, Aguirre, James, Ali-Haimoud, Yacine, Alvarez, Marcelo, Appleton, Phil, Armus, Lee, Jacobs, D., et al. *Cosmic Dawn And Reionization: Astrophysics In The Final Frontier* BAAS, 51, 48, 2019
- [53] Ali, Zaki S., Parsons, Aaron R., Zheng, Haoxuan, Pober, Jonathan C., Liu, Adrian, Aguirre, James E., Jacobs, D., et al. *Erratum: "Paper-64 Constraints On Reionization: The 21 Cm Power Spectrum At $Z = 8.4$ "* (2015, Apj, 809, 61) ApJ, 863, 201, 2018
- [52] Kittiwisit, Piyanat, Bowman, Judd D., Jacobs, Daniel C., Beardsley, Adam P., Thyagarajan, Nithyanandan *Sensitivity Of The Hydrogen Epoch Of Reionization Array And Its Build-Out Stages To One-Point Statistics From Redshifted 21 Cm Observations* MNRAS, 474, 4487-4499, 2018
- [51] Patra, Nipanjana, Parsons, Aaron R., DeBoer, David R., Thyagarajan, Nithyanandan, Ewall-Wice, Aaron, Hsyu, Gilbert, Jacobs, D., et al. *The Hydrogen Epoch Of Reionization Array Dish Iii: Measuring Chromaticity Of Prototype Element With Reflectometry* Experimental Astronomy, 45, 177-199, 2018
- [50] Kittiwisit, Piyanat, Bowman, Judd D., Jacobs, Daniel C., Beardsley, Adam P., Thyagarajan, Nithyanandan *Erratum: Sensitivity Of The Hydrogen Epoch Of Reionization Array And Its Build-Out Stages To One-Point Statistics From Redshifted 21 Cm Observations* MNRAS, 477, 864-866, 2018
- [49] Trott, Cathryn M., Jordan, C. H., Murray, S. G., Pindor, B., Mitchell, D. A., Wayth, R. B., Jacobs, D., et al. *Assessment Of Ionospheric Activity Tolerances For Epoch Of Reionization Science With The Murchison Widefield Array* ApJ, 867, 15, 2018
- [48] Li, W., Pober, J. C., Hazelton, B. J., Barry, N., Morales, M. F., Sullivan, I., Jacobs, D., et al. *Comparing Redundant And Sky-Model-Based Interferometric Calibration: A First Look With Phase Ii Of The Mwa* ApJ, 863, 170, 2018

- [47] Kerrigan, Joshua R., Pober, Jonathan C., Ali, Zaki S., Cheng, Carina, Beardsley, Adam P., Parsons, Aaron R., Jacobs, D., et al. *Improved 21 Cm Epoch Of Reionization Power Spectrum Measurements With A Hybrid Foreground Subtraction And Avoidance Technique* ApJ, 864, 131, 2018
- [46] Cheng, Carina, Parsons, Aaron R., Kolopanis, Matthew, Jacobs, Daniel C., Liu, Adrian, Kohn, Saul A. et al. *Characterizing Signal Loss In The 21 Cm Reionization Power Spectrum: A Revised Study Of Paper-64* ApJ, 868, 26, 2018
- [45] DeBoer, David R., Parsons, Aaron R., Aguirre, James E., Alexander, Paul, Ali, Zaki S., Beardsley, Adam P., Jacobs, D., et al. *Hydrogen Epoch Of Reionization Array (Hera)* PASP, 129, 045001, 2017
- [44] Jacobs, Daniel C., Burba, Jacob, Bowman, Judd D., Neben, Abraham R., Stinnett, Benjamin, Turner, Lauren et al. *First Demonstration Of Echo: An External Calibrator For Hydrogen Observatories* PASP, 129, 035002, 2017
- [43] Hazelton, Bryna J., Jacobs, Daniel C., Pober, Jonathan C., Beardsley, Adam P. *Pyuvdata: An Interface For Astronomical Interferometric Datasets In Python* The Journal of Open Source Software, 2, 140, 2017
- [42] Moore, David F., Aguirre, James E., Kohn, Saul A., Parsons, Aaron R., Ali, Zaki S., Bradley, Richard F., Jacobs, D., et al. *Limits On Polarized Leakage For The Paper Epoch Of Reionization Measurements At 126 And 164 Mhz* ApJ, 836, 154, 2017
- [41] Trott, C. M., Pindor, B., Procopio, P., Wayth, R. B., Mitchell, D. A., McKinley, B., Jacobs, D., et al. *Chips: The Cosmological HI Power Spectrum Estimator* ApJ, 818, 139, 2016
- [40] Pober, J. C., Hazelton, B. J., Beardsley, A. P., Barry, N. A., Martinot, Z. E., Sullivan, I. S., Jacobs, D., et al. *The Importance Of Wide-Field Foreground Removal For 21 Cm Cosmology: A Demonstration With Early Mwa Epoch Of Reionization Observations* ApJ, 819, 8, 2016
- [39] Kohn, S. A., Aguirre, J. E., Nunhokee, C. D., Bernardi, G., Pober, J. C., Ali, Z. S., Jacobs, D., et al. *Constraining Polarized Foregrounds For Eor Experiments I: 2D Power Spectra From The Paper-32 Imaging Array* ApJ, 823, 88, 2016
- [38] Offringa, A. R., Trott, C. M., Hurley-Walker, N., Johnston-Hollitt, M., McKinley, B., Barry, N., Jacobs, D., et al. *Parametrizing Epoch Of Reionization Foregrounds: A Deep Survey Of Low-Frequency Point-Source Spectra With The Murchison Widefield Array* MNRAS, 458, 1057-1070, 2016
- [37] Giroletti, M., Massaro, F., D'Abrusco, R., Lico, R., Burlon, D., Hurley-Walker, N., Jacobs, D., et al. *High-Energy Sources At Low Radio Frequency: The Murchison Widefield Array View Of Fermi Blazars* A&A, 588, A141, 2016
- [36] Jacobs, Daniel C., Hazelton, B. J., Trott, C. M., Dillon, Joshua S., Pindor, B., Sullivan, I. S. et al. *The Murchison Widefield Array 21 Cm Power Spectrum Analysis Methodology* ApJ, 825, 114, 2016
- [35] Lenc, E., Gaensler, B. M., Sun, X. H., Sadler, E. M., Willis, A. G., Barry, N., Jacobs, D., et al. *Low-Frequency Observations Of Linearly Polarized Structures In The Interstellar Medium Near The South Galactic Pole* ApJ, 830, 38, 2016
- [34] Beardsley, A. P., Hazelton, B. J., Sullivan, I. S., Carroll, P., Barry, N., Rahimi, M., Jacobs, D., et al. *First Season Mwa Eor Power Spectrum Results At Redshift 7* ApJ, 833, 102, 2016
- [33] Ewall-Wice, A., Dillon, Joshua S., Hewitt, J. N., Loeb, A., Mesinger, A., Neben, A. R., Jacobs, D., et al. *First Limits On The 21 Cm Power Spectrum During The Epoch Of X-Ray Heating* MNRAS, 460, 4320-4347, 2016
- [32] Neben, Abraham R., Bradley, Richard F., Hewitt, Jacqueline N., DeBoer, David R., Parsons, Aaron R., Aguirre, James E., Jacobs, D., et al. *The Hydrogen Epoch Of Reionization Array Dish. I. Beam Pattern Measurements And Science Implications* ApJ, 826, 199, 2016
- [31] Arora, B. S., Morgan, J., Ord, S. M., Tingay, S. J., Hurley-Walker, N., Bell, M., Jacobs, D., et al. *Ionospheric Modelling Using Gps To Calibrate The Mwa. I: Comparison Of First Order Ionospheric Effects Between Gps Models And Mwa Observations* PASA, 32, e029, 2015
- [30] Callingham, J. R., Gaensler, B. M., Ekers, R. D., Tingay, S. J., Wayth, R. B., Morgan, J., Jacobs, D., et al. *Broadband Spectral Modeling Of The Extreme Gigahertz-Peaked Spectrum Radio Source Pks B0008-421* ApJ, 809, 168, 2015
- [29] Pober, Jonathan C., Ali, Zaki S., Parsons, Aaron R., McQuinn, Matthew, Aguirre, James E., Bernardi, Gianni, Jacobs, D., et al. *Paper-64 Constraints On Reionization. Ii. The Temperature Of The Z = 8.4 Intergalactic Medium* ApJ, 809, 62, 2015

- [28] Ali, Zaki S., Parsons, Aaron R., Zheng, Haoxuan, Pober, Jonathan C., Liu, Adrian, Aguirre, James E., Jacobs, D., et al. *Paper-64 Constraints On Reionization: The 21 Cm Power Spectrum At $Z = 8.4$* ApJ, 809, 61, 2015
- [27] Dillon, Joshua S., Neben, Abraham R., Hewitt, Jacqueline N., Tegmark, Max, Barry, N., Beardsley, A. P., Jacobs, D., et al. *Empirical Covariance Modeling For 21 Cm Power Spectrum Estimation: A Method Demonstration And New Limits From Early Murchison Widefield Array 128-Tile Data* Phys. Rev. D, 91, 123011, 2015
- [26] Thyagarajan, Nithyanandan, Jacobs, Daniel C., Bowman, Judd D., Barry, N., Beardsley, A. P., Bernardi, G. et al. *Foregrounds In Wide-Field Redshifted 21 Cm Power Spectra* ApJ, 804, 14, 2015
- [25] Ord, S. M., Crosse, B., Emrich, D., Pallot, D., Wayth, R. B., Clark, M. A., Jacobs, D., et al. *The Murchison Widefield Array Correlator* PASA, 32, e006, 2015
- [24] Offringa, A. R., Wayth, R. B., Hurley-Walker, N., Kaplan, D. L., Barry, N., Beardsley, A. P., Jacobs, D., et al. *The Low-Frequency Environment Of The Murchison Widefield Array: Radio-Frequency Interference Analysis And Mitigation* PASA, 32, e008, 2015
- [23] Jacobs, Daniel C., Pober, Jonathan C., Parsons, Aaron R., Aguirre, James E., Ali, Zaki S., Bowman, Judd et al. *Multiredshift Limits On The 21 Cm Power Spectrum From Paper* ApJ, 801, 51, 2015
- [22] McKinley, B., Yang, R., López-Cañiego, M., Briggs, F., Hurley-Walker, N., Wayth, R. B., Jacobs, D., et al. *Modelling Of The Spectral Energy Distribution Of Fornax A: Leptonic And Hadronic Production Of High-Energy Emission From The Radio Lobes* MNRAS, 446, 3478-3491, 2015
- [21] Thyagarajan, Nithyanandan, Jacobs, Daniel C., Bowman, Judd D., Barry, N., Beardsley, A. P., Bernardi, G. et al. *Confirmation Of Wide-Field Signatures In Redshifted 21 Cm Power Spectra* ApJ, 807, L28, 2015
- [20] Parsons, Aaron R., Liu, Adrian, Aguirre, James E., Ali, Zaki S., Bradley, Richard F., Carilli, Chris L., Jacobs, D., et al. *New Limits On 21 Cm Epoch Of Reionization From Paper-32 Consistent With An X-Ray Heated Intergalactic Medium At $Z = 7.7$* ApJ, 788, 106, 2014
- [19] Jacobs, Daniel, Kuzsak, Adam J., Buchanan, Susan K., Bezrukov, Sergey M., Rostovtseva, Tatiana K., Gurnev, Philip A. et al. *Investigating Tom40 Structure And Function Relationship Using Single Channel Analysis* Biophysical Journal, 106, 590a, 2014
- [18] Pober, Jonathan C., Liu, Adrian, Dillon, Joshua S., Aguirre, James E., Bowman, Judd D., Bradley, Richard F., Jacobs, D., et al. *What Next-Generation 21 Cm Power Spectrum Measurements Can Teach Us About The Epoch Of Reionization* ApJ, 782, 66, 2014
- [17] Offringa, A. R., McKinley, B., Hurley-Walker, N., Briggs, F. H., Wayth, R. B., Kaplan, D. L., Jacobs, D., et al. *Wsclean: An Implementation Of A Fast, Generic Wide-Field Imager For Radio Astronomy* MNRAS, 444, 606-619, 2014
- [16] Pober, Jonathan C., Liu, Adrian, Dillon, Joshua S., Aguirre, James E., Bowman, Judd D., Bradley, Richard F., Jacobs, D., et al. *Erratum: "What Next-Generation 21 Cm Power Spectrum Measurements Can Teach Us About The Epoch Of Reionization"* (2014, Apj, 782, 66) ApJ, 788, 96, 2014
- [15] Hindson, L., Johnston-Hollitt, M., Hurley-Walker, N., Buckley, K., Morgan, J., Carretti, E., Jacobs, D., et al. *The First Murchison Widefield Array Low-Frequency Radio Observations Of Cluster Scale Non-Thermal Emission: The Case Of Abell 3667* MNRAS, 445, 330-346, 2014
- [14] Hurley-Walker, Natasha, Morgan, John, Wayth, Randall B., Hancock, Paul J., Bell, Martin E., Bernardi, Gianni, Jacobs, D., et al. *The Murchison Widefield Array Commissioning Survey: A Low-Frequency Catalogue Of 14 110 Compact Radio Sources Over 6 100 Square Degrees* PASA, 31, e045, 2014
- [13] Jacobs, Daniel C., Parsons, Aaron R., Aguirre, James E., Ali, Zaki, Bowman, Judd, Bradley, Richard F. et al. *A Flux Scale For Southern Hemisphere 21 Cm Epoch Of Reionization Experiments* ApJ, 776, 108, 2013
- [12] Tingay, S. J., Kaplan, D. L., McKinley, B., Briggs, F., Wayth, R. B., Hurley-Walker, N., Jacobs, D., et al. *On The Detection And Tracking Of Space Debris Using The Murchison Widefield Array. I. Simulations And Test Observations Demonstrate Feasibility* AJ, 146, 103, 2013
- [11] Stefan, Irina I., Carilli, Chris L., Green, David A., Ali, Zaki, Aguirre, James E., Bradley, Richard F., Jacobs, D., et al. *Imaging On Paper: Centaurus A At 148 Mhz* MNRAS, 432, 1285-1293, 2013

- [10] Moore, David F., Aguirre, James E., Parsons, Aaron R., Jacobs, Daniel C., Pober, Jonathan C. *The Effects Of Polarized Foregrounds On 21 Cm Epoch Of Reionization Power Spectrum Measurements* ApJ, 769, 154, 2013
- [9] Pober, Jonathan C., Parsons, Aaron R., Aguirre, James E., Ali, Zaki, Bradley, Richard F., Carilli, Chris L., Jacobs, D., et al. *Opening The 21 Cm Epoch Of Reionization Window: Measurements Of Foreground Isolation With Paper* ApJ, 768, L36, 2013
- [8] Jacobs, Daniel C., Bowman, Judd, Aguirre, James E. *The Precision And Accuracy Of Early Epoch Of Reionization Foreground Models: Comparing Mwa And Paper 32-Antenna Source Catalogs* ApJ, 769, 5, 2013
- [7] Parsons, Aaron R., Pober, Jonathan C., Aguirre, James E., Carilli, Christopher L., Jacobs, Daniel C., Moore, David F. et al. *A Per-Baseline, Delay-Spectrum Technique For Accessing The 21 Cm Cosmic Reionization Signature* ApJ, 756, 165, 2012
- [6] Parsons, Aaron, Pober, Jonathan, McQuinn, Matthew, Jacobs, Daniel, Aguirre, James A *Sensitivity And Array-Configuration Study For Measuring The Power Spectrum Of 21 Cm Emission From Reionization* ApJ, 753, 81, 2012
- [5] Pober, Jonathan C., Parsons, Aaron R., Jacobs, Daniel C., Aguirre, James E., Bradley, Richard F., Carilli, Chris L. et al. *A Technique For Primary Beam Calibration Of Drift-Scanning, Wide-Field Antenna Elements* AJ, 143, 53, 2012
- [4] Rostovtseva, Tatiana K., Gurnev, Philip A., Jacobs, Daniel, Weinrich, Michael, Weinrich, Michael, Bezrukov, Sergey M. et al. *Interaction Of Novel Anticancer Drug Erastin With Lipid Bilayers Probed By Gramicidin A* Biophysical Journal, 102, 85a, 2012
- [3] Jacobs, Daniel C., Aguirre, James E., Parsons, Aaron R., Pober, Jonathan C., Bradley, Richard F., Carilli, Chris L. et al. *New 145 Mhz Source Measurements By Paper In The Southern Sky* ApJ, 734, L34, 2011
- [2] Parsons, Aaron R., Backer, Donald C., Foster, Griffin S., Wright, Melvyn C. H., Bradley, Richard F., Gugliucci, Nicole E., Jacobs, D., et al. *The Precision Array For Probing The Epoch Of Re-Ionization: Eight Station Results* AJ, 139, 1468-1480, 2010
- [1] Plowman, Joseph E., Jacobs, Daniel C., Hellings, Ronald W., Larson, Shane L., Tsuruta, Sachiko *Constraining The Black Hole Mass Spectrum With Gravitational Wave Observations - I. The Error Kernel* MNRAS, 401, 2706-2714, 2010

PUBLIC/PREPRINT

Items listed here include white papers submitted as part of the astronomy decadal process, community position papers, and papers which are either accepted or in review.

- [13] Kern, Nicholas S., Dillon, Joshua S., Parsons, Aaron R., Carilli, Christopher L., Bernardi, Gianni, Abdurashidova, Zara, Jacobs, D., et al. *Absolute Calibration Strategies For The Hydrogen Epoch Of Reionization Array And Their Impact On The 21 Cm Power Spectrum* arXiv e-prints, , arXiv:1910.12943, 2019
- [12] Fagnoni, Nicolas, de Lera Acedo, Eloy, DeBoer, David R., Abdurashidova, Zara, Aguirre, James E., Alexander, Paul, Jacobs, D., et al. *Electrical And Electromagnetic Co-Simulations Of The Hera Phase I Receiver System Including The Effects Of Mutual Coupling, And Impact On The Eor Window* arXiv e-prints, , arXiv:1908.02383, 2019
- [11] Ahmed, Zeeshan, Alonso, David, Amin, Mustafa A., Ansari, Réza, Arena, Evan J., Bandura, Kevin, Jacobs, D., et al. *Research And Development For Hi Intensity Mapping* arXiv e-prints, , arXiv:1907.13090, 2019
- [10] Alvarez, Marcelo A., Fialkov, Anastasia, La Plante, Paul, Aguirre, James, Ali-Haïmoud, Yacine, Becker, George, Jacobs, D., et al. *Mapping Cosmic Dawn And Reionization: Challenges And Synergies* arXiv e-prints, , arXiv:1903.04580, 2019
- [9] Furlanetto, Steven, Carilli, Chris L., Mirocha, Jordan, Aguirre, James, Ali-Haimoud, Yacine, Alvarez, Marcelo, Jacobs, D., et al. *Astro2020 Science White Paper: Insights Into The Epoch Of Reionization With The Highly-Redshifted 21-Cm Line* arXiv e-prints, , arXiv:1903.06204, 2019
- [8] Furlanetto, Steven, Bowman, Judd D., Mirocha, Jordan, Pober, Jonathan C., Burns, Jack, Carilli, Chris L., Jacobs, D., et al. *Astro 2020 Science White Paper: Fundamental Cosmology In The Dark Ages With 21-Cm Line Fluctuations* arXiv e-prints, , arXiv:1903.06212, 2019

- [7] Mirocha, Jordan, Jacobs, Daniel, Dillon, Josh, Furlanetto, Steve, Pober, Jonathan, Liu, Adrian et al. *Astro2020 Science White Paper: First Stars And Black Holes At Cosmic Dawn With Redshifted 21-Cm Observations* arXiv e-prints, , arXiv:1903.06218, 2019
- [6] Furlanetto, Steven, Beardsley, Adam, Carilli, Chris L., Mirocha, Jordan, Aguirre, James, Ali-Haimoud, Yacine, Jacobs, D., et al. *Astro2020 Science White Paper: Synergies Between Galaxy Surveys And Reionization Measurements* arXiv e-prints, , arXiv:1903.06197, 2019
- [5] Trott, Cathryn M., Jordan, C. H., Murray, S. G., Pindor, B., Mitchell, D. A., Wayth, R. B., Jacobs, D., et al. *Assessment Of Ionospheric Activity Tolerances For Epoch Of Reionisation Science With The Murchison Widefield Array* arXiv e-prints, , arXiv:1809.06851, 2018
- [4] Ardila, David R., Shkolnik, Evgenya, Scowen, Paul, Jewell, April, Nikzad, Shouleh, Bowman, Judd, Jacobs, D., et al. *The Star-Planet Activity Research Cubesat (Sparcs): A Mission To Understand The Impact Of Stars In Exoplanets* arXiv e-prints, , arXiv:1808.09954, 2018
- [3] Kovetz, Ely D., Viero, Marco P., Lidz, Adam, Newburgh, Laura, Rahman, Mubdi, Switzer, Eric, Jacobs, D., et al. *Line-Intensity Mapping: 2017 Status Report* arXiv e-prints, , arXiv:1709.09066, 2017
- [2] Muna, Demitri, Alexander, Michael, Allen, Alice, Ashley, Richard, Asmus, Daniel, Azzollini, Ruyman, Jacobs, D., et al. *The Astropy Problem* arXiv e-prints, , arXiv:1610.03159, 2016
- [1] Hindson, L., Johnston-Hollitt, M., Hurley-Walker, N., Buckley, K., Morgan, J., Carretti, E., Jacobs, D., et al. *First Look Murchison Widefield Array Observations Of Abell 3667* arXiv e-prints, , arXiv:1409.2943, 2014

ABSTRACTS

Note that this list also includes "conference proceedings" a category in which peer review quality and academic significance varies widely across physics, astronomy, instrumentation, and space mission development.

- [30] Osby, E., Ardila, D., Barman, T., Beasley, M., Bowman, J., Gorjian, V., Jacobs, D., et al. *Photometric Color Correction Of The Star Planet Activity Research Cubesat (Sparcs)* , 52, 150.08, 2020
- [29] Ramaramananantsoa, T., Shkolnik, E. L., Ardila, D. R., Barman, T., Beasley, M., Bowman, J., Jacobs, D., et al. *M Dwarf Activity And Flaring In The Ultraviolet Domain With The Star-Planet Activity Research Cubesat (Sparcs)* , 52, 132.05, 2020
- [28] Whitler, Lily R., Beardsley, Adam, Jacobs, Daniel *The Effects Of Rfi On 21-Cm Measurements Of The Epoch Of Reionization* , 233, 349.17, 2019
- [27] Morgan, Sean, Jacobs, Daniel, Beardsley, Adam *Calibration And Imaging With Hera Outriggers* , 233, 349.22, 2019
- [26] Elder, Katherine, Jacobs, Daniel *Identifying And Modeling Constant Additive Offset In Hera Visibility Data* , 233, 349.21, 2019
- [25] Bechtel, Shane K., Beardsley, Adam, Jacobs, Daniel *Using Non-Redundancy As An Antenna Metric For Hera Data* , 233, 349.20, 2019
- [24] Lewis, David, Beardsley, Adam, Jacobs, Daniel *Hydrogen Epoch Of Reionization Array 2017-2018 Observational Season Reporting* , 233, 349.19, 2019
- [23] Cox, Tyler, Beardsley, Adam, Jacobs, Daniel *Measuring Hera'S Primary Beam Using Extragalactic Radio Sources* , 233, 349.18, 2019
- [22] Jacobs, Daniel, Kolopanis, Matthew, Cheng, Carina *A Reanalysis Of Paper-64 Epoch Of Reionization Observations At Redshifts 7 To 11.* , 233, 413.03, 2019
- [21] Cheng, Carina, Parsons, Aaron, Kolopanis, Matthew, Jacobs, Daniel, Liu, Adrian, Kohn, Saul et al. *21Cm Power Spectrum Analysis Lessons* , 233, 413.02, 2019
- [20] Slosar, Anze, Ahmed, Zeeshan, Alonso, David, Amin, Mustafa A., Arena, Evan J., Bandura, Kevin, Jacobs, D., et al. *Packed Ultra-Wideband Mapping Array (Puma): A Radio Telescope For Cosmology And Transients* , 51, 53, 2019
- [19] Thyagarajan, Nithyanandan, Beardsley, Adam, Bowman, Judd, Dowell, Jayce, Taylor, Greg, Kent, James, Jacobs, D., et al. *A Roadmap For Efficient Direct Imaging With Large Radio Interferometer Arrays* , 51, 263, 2019
- [18] Taylor, Greg, Dowell, Jayce, Pihlström, Ylva, Schinzel, Frank, Kassim, Namir, Hallinan, Gregg, Jacobs, D., et al. *The Swarm Development Concept For The Lwa* , 51, 2, 2019

- [17] Timbie, Peter, Ahmed, Zeeshan, Alonso, David, Amin, Mustafa A., Ansari, Réza, Arena, Evan J., Jacobs, D., et al. *Research And Development For Hi Intensity Mapping* , 51, 71, 2019
- [16] Parsons, Aaron, Aguirre, James E., Beardsley, Adam P., Bernardi, Gianni, Bowman, Judd D., Bull, Philip, Jacobs, D., et al. *A Roadmap For Astrophysics And Cosmology With High-Redshift 21 Cm Intensity Mapping* , 51, 241, 2019
- [15] Shkolnik, Evgenya L., Ardila, David, Barman, Travis, Beasley, Matthew, Bowman, Judd D., Gorjian, Varoujan, Jacobs, D., et al. *Monitoring The High-Energy Radiation Environment Of Exoplanets Around Low-Mass Stars With Sparcs (Star-Planet Activity Research Cubesat)* , 231, 228.04, 2018
- [14] Carroll, P. A., Line, J., Morales, M. F., Barry, N., Beardsley, A. P., Hazelton, B. J., Jacobs, D., et al. *VizieR Online Data Catalog: Kgs Eor0 Catalogue (Carroll+, 2016)* VizieR Online Data Catalog, , J/MNRAS/461/4151, 2018
- [13] Shkolnik, E. L., Ardila, D. R., Barman, T., Beasley, M., Judd, B., Gorjianb, V., Jacobs, D., et al. *A Dedicated Ultraviolet Cubesat For Astrophysics, Sparcs (Star Planet Activity Research Cubesat)* , 2018, P24C-05, 2018
- [12] Williams, D. A., Lopes, R. M. C., Castillo-Rogez, J., Jacobs, D. C., Scowen, P. A. *Cubesats To Support Future Io Exploration* , , 1017, 2018
- [11] Scowen, Paul A., Shkolnik, Evgenya L., Ardila, David, Berman, Travis, Beasley, Matthew, Bowman, Judd, Jacobs, D., et al. *Monitoring The High-Energy Radiation Environment Of Exoplanets Around Low-Mass Stars With Sparcs (Star-Planet Activity Research Cubesat)* , 10699, 106990F, 2018
- [10] Offringa, A. R., Trott, C. M., Hurley-Walker, N., Johnston-Hollitt, M., McKinley, B., Barry, N., Jacobs, D., et al. *VizieR Online Data Catalog: Eor0 Central Field Source Catalog (Offringa+, 2016)* VizieR Online Data Catalog, , J/MNRAS/458/1057, 2017
- [9] Jacobs, Daniel, HERA Team *Early Science From The Hydrogen Epoch Of Reionization Array* , 229, 125.03, 2017
- [8] Jacobs, Daniel, HERA Collaboration *Probing The Epoch Reionization At Redshifts 6 To 12 With Mwa, Paper And Hera* , 2016, S12.003, 2016
- [7] Giroletti, M., Massaro, F., D'Abrusco, R., Lico, R., Burlon, D., Hurley-Walker, N., Jacobs, D., et al. *VizieR Online Data Catalog: The Mwa View Of Fermi Blazars (Giroletti+, 2016)* VizieR Online Data Catalog, , J/A+A/588/A141, 2016
- [6] Hurley-Walker, N., Morgan, J., Wayth, R. B., Hancock, P. J., Bell, M. E., Bernardi, G., Jacobs, D., et al. *VizieR Online Data Catalog: Mwacs (Hurley-Walker+, 2014)* VizieR Online Data Catalog (other), 0190, J/other/PASA/31, 2014
- [5] Hurley-Walker, N., Morgan, J., Wayth, R. B., Hancock, P. J., Bell, M. E., Bernardi, G., Jacobs, D., et al. *VizieR Online Data Catalog: 180Mhz Murchison Commissioning Survey (Mwacs) (Hurley-Walker+, 2014)* VizieR Online Data Catalog, , VIII/98, 2014
- [4] DeBoer, David, Bowman, J. D., Jacobs, D., Parsons, A., Liu, A., Werthimer, D. et al. *Hera: Chasing Our Cosmic Dawn* , 2, 10304, 2014
- [3] Carilli, Chris L., Stefan, I., Aguirre, J. E., Bradley, R. F., Green, D., Jacobs, D., Jacobs, D., et al. *Imaging On Paper* , 221, 108.07, 2013
- [2] Jacobs, Daniel, Bowman, J. D., Aguirre, J. E. *The Precision And Accuracy Of Early Epoch Of Reionization Foreground Models: Comparing Mwa And Paper 32-Antenna Source Catalogs* , 221, 108.08, 2013
- [1] Pober, Jonathan, Parsons, A., Backer, D., Bradley, R., Parashare, C., Gugliucci, N., Jacobs, D., et al. *The Precision Array For Probing The Epoch Of Reionization* , 217, 432.06, 2011

[CV compiled on 2020-01-31 for ASU]