Dr. Peter Kelsey George Williams
Curriculum Vitæ (exhaustive) — Jan 24, 2024.

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Education

2012	*Ph.D. (Astrophysics),* University of California, Berkeley Dissertation: "Exploring the Dynamic Radio Sky with the Allen Telescope Array" Adviser: Geoffrey Bower
2008	*M.A. (Astrophysics),* University of California, Berkeley
2006	*B.A. (Astronomy & Astrophysics and Physics) with high honors, magna cum laude,* Harvard College

Employment

2018–present	*Innovation Scientist,* Center for Astrophysics	Harvard & Smithsonian and American Astronomical Society
2015–2018	*Research associate,* Harvard-Smithsonian Center for Astrophysics
2012–2015	*Postdoctoral fellow,* Harvard-Smithsonian Center for Astrophysics
2006–2012	*Graduate student,* University of California, Berkeley

Research Interests

- Extrasolar magnetospheres: planets, brown dwarfs, very-low-mass stars
- Time-domain astrophysics: overall properties of the sky, known and potential sources, surveys
- Large-scale data analysis: methods, software tools, applications, visualization
- Observing: centimeter and millimeter radio interferometry; X-ray and UV imaging; optical imaging and spectroscopy (MMT 6m, CTIO/Blanco 4m, Lick/Shane 3m, Lick/Nickel 1m, Lick/CAT 1m)

Honors, Awards, Resource Allocations

2007–present	Summary of resources awarded as proposal PI:

ALMA	10 hr	Nickel 1m (Lick Obs.)	2 night
Allen Telescope Array	806 hr	Swift	94 ks
Chandra	245 ks	Very Large Array	214 hr
Hubble	2 orbit	XMM-Newton	110 ks
MMT 6m	3 night	*Support funding*	295263 USD
NSF OAC CSSI (19-548)	431261 USD		

2010	*Space Sciences Laboratory, UC Berkeley* Summer research fellowship
2006–2009	*National Science Foundation* Graduate Research Program fellowship
2006	*Google, Inc.* "Summer of Code" open-source software development stipend
2006	*Harvard College Department of Astronomy* Goldberg Senior Thesis prize

Summary of Publications

Since 2004 I have been an author on 123 refereed publications, 12 as first author. As of around Jan 24, 2024, my refereed publications had 11843 citations and my h-index was 45, according to NASA ADS.

Supervised Students

2015	*Erin Kado-Fong,* summer undergraduate Presently: YCAA prize fellow, Yale Center for Astronomy and Astrophysics
2013	*Benjamin Cook,* summer undergraduate Presently: Quantitative Researcher, Akuna Capital

2012	*Keaton Burns,* term-time undergraduate Presently: Instructor in Applied Math, MIT

Classroom Teaching

2022 Oct	*At ADASS32 (virtual)* Tutorial: "Huge FITS Images in JupyterLab with AAS WorldWide Telescope"
2022 Jul	*Latino Initiative Program, Harvard-Smithsonian Center for Astrophysics* Tutorial: "Astroquery"
2022 Jun	*At AAS Summer Meeting #240 (Pasadena, CA)* Tutorial: "Making the Most of the AAS WorldWide Telescope"
2022 Apr	*Harvard-Smithsonian Center for Astrophysics* Tutorial: "Foundations of Astronomy in Python: Astropy in JupyterLab"
2021 Jan	*At AAS Summer Meeting #238 (virtual)* Tutorial: "Making the Most of the AAS WorldWide Telescope"
2021 Jan	*At AAS Winter Meeting #237 (virtual)* Tutorial: "Making the Most of the AAS WorldWide Telescope"
2020 Nov	*At ADASS30 (virtual)* Tutorial: "Interactively Exploring and Visualizing Data on the Sky with Jupyter and pywwt"
2020 Oct	*At the 52nd AAS Division of Planetary Sciences meeting (virtual)* Tutorial: "AAS WorldWide Telescope for Planetary Sciences"
2020 Sep	*At 'Astro Hack Week 2020' (virtual)* Tutorial: "Interactive Visualization in the Era of Jupyter"
2020 Jun	*Latino Initiative Program, Harvard-Smithsonian Center for Astrophysics* Tutorial: "Astropy and Astroquery"
2020 Jun	*At AAS Summer Meeting #236 (virtual)* Tutorial: "Making the Most of the AAS WorldWide Telescope"
2020 Mar	*Harvard-Smithsonian Center for Astrophysics (virtual)* Tutorial: "Easy software installs with Conda and conda-forge"
2020 Jan	*At AAS Winter Meeting #235 (Honolulu, HI)* Tutorial: "Making the Most of the AAS WorldWide Telescope"
2019 Nov	*At 'Petabytes to Science 3' (Cambridge, MA)* Tutorial: "Data Visualization with AAS WorldWide Telescope"
2019 Oct	*At ADASS29 (Groningen, NL)* Tutorial: "Interactively exploring and visualizing data on the sky with Jupyter and pywwt"
2019 Jul	*Latino Initiative Program, Harvard-Smithsonian Center for Astrophysics* Tutorial: "Astropy and Astroquery"
2019 Jun	*At AAS Summer Meeting #234 (St. Louis, MO)* Tutorial: "Making Tours with the AAS WorldWide Telescope"
2019 Jun	*At AAS Summer Meeting #234 (St. Louis, MO)* Tutorial: "Introduction to the AAS WorldWide Telescope"
2019 Jan	*At AAS Winter Meeting #233 (Seattle, WA)* Tutorial: "Professional Development with the AAS WorldWide Telescope"
2018 Jun	*At 'HERA CHAMP bootcamp' (Santa Fe, NM)* Tutorial: "Introduction to git and Python"
2017 Jun	*At 'HERA CHAMP bootcamp' (Pomona, CA)* Tutorial: "Introduction to git and Python"
2016 Nov	*Harvard-Smithsonian Center for Astrophysics* Tutorial co-instructor, "Introduction to Python and AstroPy"
2015 Jun	*Harvard-Smithsonian Center for Astrophysics* Tutorial co-instructor, "Introduction to Astronomical Python"
2014 Nov	*Harvard-Smithsonian Center for Astrophysics* 'Helper', Software Carpentry computing fundamentals workshop

2013 Jun	*Harvard-Smithsonian Center for Astrophysics* Tutorial co-instructor, "Introduction to Astronomical Python"
2010	*University of California, Berkeley* Course head, "Radio Astronomy 101: Everything You Wanted to Know About Radio Astronomy but Were Afraid to Ask" (Astronomy 250)
2008	*University of California, Berkeley* Course head, "Instruction Techniques in General Astronomy" (Astronomy 300)
2007	*University of California, Berkeley* Graduate student instructor, "Optical Astronomy Laboratory" (Astronomy 120)
2006	*University of California, Berkeley* Graduate student instructor, "Introduction to General Astronomy" (Astronomy 10)

Summary of Professional Talks

Since 2010 I have given 78 professional talks, 19 of them invited. Venues include 29 conferences as well as institutions such as AMNH, Cornell, Harvard, Monash University, NASA Ames, Northwestern, Penn State, STScI, UC Berkeley, and UC Santa Cruz. An exhaustive list of talks may be found at the end of this document.

Summary of Professional Software Contributions

Major efforts include tools for interferometric data analysis (miriad-python, pwkit, pyuvdata, rubbl, scanalyzer), polarized synchrotron radiative transfer (rimphony), scientific communication (bibtools, omegaplot, tectonic, tex-stuff, worklog-tools), data management (blobman, librarian), and improvements to widely-used systems (casa, conda-forge, emcee). My contributions to open-source scientific software include 9791 commits to 41 public source code repositories on websites like GitHub. Projects on which I am the primary author have received 3994 stars and been forked 232 times. An exhaustive list of open-source software repositories may be found at the end of this document.

Summary of Public Engagement Activities

Since 2009 my public engagement activities have included a variety of outreach events, 3 press releases, 17 interviews in the media, and 5 public talks. An exhaustive list of activities may be found at the end of this document.

Professional Service

2020–present	Moderator, arxiv.org astro-ph category
2019–present	Member, Unified Astronomy Thesaurus (UAT) Steering Committee (stepping down 2023)
2019–present	Member, CfA Scientific Compution Advisory Committee
2019–present	Core member, conda-forge software packaging project
2018–present	Proposal reviewer: NASA, NRAO, NSF
2015–present	Writer of 15 letters of recommendation
2013–present	Referee: A&A, AJ, ApJ, ApJL, MNRAS, Nature
2021–2022	Member, CfA Software Engineering Steering Committee
2019 Sep	Panelist, NRAO LASSI laser metrology system preliminary design review
2017	SOC, 'AAS TCS 5: Radio Exploration of Planetary Habitability' (Indian Wells, CA)
2012 Apr	Science funding advocate, AAS Congressional Visits Day (Washington, DC)

Other Professional Development

2008	*NASA Center for Astronomy Education* Attended "Improving the Introductory Astronomy Survey Course for Non-Science Majors through Active Learning: A Teaching Excellence Workshop"
2008	*NRAO, Socorro* Attended "Synthesis Imaging Summer Workshop"
2007	*Combined Array for Research in Millimeter Astronomy (CARMA)* Attended "CARMA Millimeter Interferometry Summer School"

Exhaustive List of Professional Talks

2024 Jan *At AAS Winter Meeting #243 (New Orleans, LA)*
"Completing the DASCH Project"

2023 Apr *Tangerine Tech Talk (ASTRON)*
"WWT's Novel JupyterLab User Experience for Interactive Data Visualization"

2022 Jul *TUG 2022 (virtual)*
"The Tectonic Project: Envisioning A 21st-Century TeX Experience"

2022 Jun *At AAS Summer Meeting #240 (Pasadena, CA)*
"AAS WorldWide Telescope: Astro-Viz From Dome to Home"

2022 May *At 'Seeing the Future: Of the Universe, Data, Learning, and Digital Scholarship' (New Castle, NH)*
"Showcasing Astronomical Data and Knowledge: AAS WorldWide Telescope"

2022 Jan *'New Year Lectures from Astronomical Software Masters' series (virtual)*
"The WorldWide Telescope: Past, Present, and Future"

2021 Dec *At AGU 2021 (New Orleans / virtual)*
"Ultracool Magnetospheres: The Radio Astronomical Perspective on Extrasolar Energetic Charged Particles"

2021 Oct *At ADASS31 (Cape Town, SA / virtual)*
"Interactively Visualizing Massive Images and Catalogs in Jupyter with AAS WorldWide Telescope"

2021 Jan *Radio Camera Initiative seminar series*
"The Craft and Duty of Scientific Software Engineering"

2020 Dec *At Unified Astronomy Thesaurus webinar*
"UAT as a Critical Element in AAS Author Submissions"

2020 Nov *At 2020-Nov IVOA Interoperability Meeting*
"Interoperability Developments in AAS WorldWide Telescope"

2020 Oct *Postdoc Symposium, Center for Astrophysics | Harvard & Smithsonian*
"Computing and Innovation at the CfA"

2020 Aug *At Astro Hack Week 2020 (virtual)*
"Interactive Visualization in the Era of Jupyter"

2020 Aug *At Joint Statistics Meeting 2020 (virtual)*
"The Astrophysics Data Access Infrastructure"

2019 Nov *Astronomy Colloquium, US Naval Observatory*
"The Universe in Your Browser: Web-Based Scientific Visualization and the AAS WorldWide Telescope"

2019 Nov *At 'Petabytes to Science 3' (Cambridge, MA)*
"The Future of Scientific Data Visualization is on the Web"

2019 Nov *At 'Petabytes to Science 3' (Cambridge, MA)*
"The Universe in Your Browser: Web-Based Visualization and the AAS WorldWide Telescope"

2019 Oct *Postdoc Symposium, Center for Astrophysics | Harvard & Smithsonian*
"Innovation at the CfA"

2019 Sep *Green Bank Observatory Thursday Science Lunch*
"The Universe in Your Browser: Web-Based Scientific Visualization and the AAS WorldWide Telescope"

2019 Aug *At 'Hotwiring the Transient Universe 6' (Evanston, IL)*
"The AAS WorldWide Telescope"

2019 Apr *Friday Scientific Lunch Talk, NOAO*
"Modeling Jovian Magnetospheres Beyond the Solar System"

2018 Aug *EHT Seminar, Harvard-Smithsonian Center for Astrophysics*
"Catching the waves: Challenges and opportunities of 21st-century radio astronomy"

2018 Jun *At 'Low Radio Frequency Observations From Space', AAS #232 Meeting-in-a-meeting (Denver, CO, USA)*
"Modeling jovian magnetospheres beyond the solar system"

2018 Apr *ITC Luncheon, Harvard-Smithsonian Center for Astrophysics*
"Jovian magnetospheres beyond the solar system"

2018 Mar *University of Kentucky*
"It's about time: Transient astrophysics from gravitational waves to extrasolar aurorae"

2018 Jan *At AAS Meeting #231 (National Harbor, MD, USA)*
"Jovian magnetospheres beyond the solar system"

2017 Nov *Space sciences seminar (invited), Rice University*
"Jovian magnetospheres beyond the solar system"

2017 Nov *At 'Radio Stars: From kHz to THz' (MIT Haystack Observatory)*
"Jovian magnetospheres beyond the solar system"

2017 Oct *Astrophysics seminar (invited), University of Connecticut*
"Jovian magnetospheres beyond the solar system"

2017 May *At 'AAS TCS 5: Radio Exploration of Planetary Habitability' (Indian Wells, CA)*
"Surveying for Exoplanetary Auroral Radio Emission with HERA"

2017 Mar *NASA Ames Research Center (invited)*
"Hippalektryonology: Deciphering the hybrid nature of ultracool dwarfs"

2017 Feb *At 'Fast Radio Bursts: New Probes of Fundamental Physics and Cosmology' (Aspen, CO, USA)*
"An Update on the Radio Source WISE J071634.59-190039.2"

2017 Jan *Astrophysics seminar (invited), Purdue University*
"Extrasolar aurorae: exploring new regimes of magnetospheric physics with radio astronomy"

2017 Jan *At AAS Meeting #229 (Grapevine, TX, USA)*
"Variable and Polarized Radio Emission from a T6 Brown Dwarf"

2016 Nov *At 'Time-Domain Astrophysics: Incorporating Observations, Theory, and Computation in the American Northeast' (Radcliffe Institute for Advanced Study)*
"Fast Radio Bursts and Slow Radio Transients"

2016 Nov *Astrophysics Seminar (invited), Brown University*
"The Dream of Fields: Magnetism in Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2016 Oct *2016 HERA Workshop, MIT*
"The HERA Monitor and Control System"

2016 Oct *CfA Colloquium (invited), Harvard-Smithsonian Center for Astrophysics*
"The Dream of Fields: Magnetism in Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2016 Oct *ITC Luncheon, Harvard-Smithsonian Center for Astrophysics*
"Variable and Polarized Radio Emission from a T6 Brown Dwarf"

2016 Sep *CIERA Astrophysics Seminar (invited), Northwestern University*
"News from the Fourth Dimension: Radio Astronomy and the Time Domain"

2016 Aug *At 'U.S. Radio/millimeter/submillimeter Science Futures 2' (Baltimore, MD; invited)*
"Time Domain Science at Low Frequencies"

2016 Mar *At 'Synergistic Science in the Radio Regime' (Carnegie Observatory; invited)*
"GRBs, planets, and AGNs: Things That Go 'Bump' in the Radio Sky"

2016 Mar *Loeb group meeting, Harvard-Smithsonian Center for Astrophysics*
"An Update on Fast Radio Bursts"

2016 Mar *ITC Luncheon, Harvard-Smithsonian Center for Astrophysics*
"An Update on the Claimed Precise Localization of FRB 150418"

2015 Dec *Small-Scale Seminar, Harvard-Smithsonian Center for Astrophysics*
"Little Stars, Big Storms: Rethinking the Near-Space Environments of Cool Dwarfs"

2015 Dec *At 'Science at Low Frequencies II' (Albuquerque, NM, USA)*
"Exoplanets with HERA"

2015 Nov *Star and Planet Formation Seminar, STScI*
"The Dream of Fields: Magnetism in Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Nov *JILA astrophysics lunch talk, CU Boulder*
"The Dream of Fields: Magnetism in Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Oct *Astronomy Department lunch talk, UC Berkeley*
"HERA for Exoplanets"

2015 Oct *Planetary lunch, UC Santa Cruz*
"The Dream of Fields: Magnetism in Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Oct *CEHW Seminar, Penn State University*
"The Dream of Fields: Magnetism in Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Sep *Astronomy Colloquium (invited), Cornell University*
"Magnetic Fields at Low Temperatures: Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Apr *RAL Seminar, UC Berkeley*
"Magnetic Fields at Low Temperatures: Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Apr *NASA Ames Research Center*
"Magnetic Fields at Low Temperatures: Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Apr *CASS Astronomy Seminar (invited), UC San Diego*
"Magnetic Fields at Low Temperatures: Cool Stars, Brown Dwarfs, and (Eventually) Exoplanets"

2015 Apr *ITC Luncheon, Harvard-Smithsonian Center for Astrophysics*
"The Rotation Period and Magnetic Field of a T6.5 Brown Dwarf Measured from Periodic Radio Bursts"

2015 Feb *At 'Fourth BCool Workshop' (Geneva, Switzerland; invited)*
"Extreme Activity in Extreme Objects: The Radio View of Cool-Star Magnetism"

2014 Sep *Astronomy & Space Physics seminar (invited), University of Delaware*
"Youthful hyperactivity: magnetism in the low-mass benchmark binary NLTT 33370 AB"

2014 Jun *At 'Cool Stars 18' (Flagstaff, Arizona)*
"Pushing the Limits of Auroral Radio Emission: New Results from the T6.5 Dwarf 2MASS 1047+21"

2014 Jan *At 'Third BCool Workshop' (St Andrews, Scotland)*
"Radio emission and magnetic activity in the ultracool regime"

2013 Dec *Monash University*
"Strong magnetic fields in ultra-cool dwarfs: new observational insights"

2013 Dec *At 'Exploring the Radio Transient Sky' (Sydney, Australia; invited)*
"ASGARD: a large survey for Galactic radio transients"

2013 Dec *University of New South Wales*
"Strong magnetic fields in ultra-cool dwarfs: new observational insights"

2013 Nov *American Natural History Museum*
"Magnetic Activity Past the Bottom of the Main Sequence"

2013 Nov *SSP seminar, Harvard-Smithsonian Center for Astrophysics*
"Directly Detecting Exoplanets … at Radio Wavelengths"

2013 Oct *Astronomy lunch seminar, Boston University*
"Magnetic Activity Past the Bottom of the Main Sequence"

2013 Sep *Physics colloquium (invited), Bucknell University*
"Magnetic Activity in the Coolest, Smallest Stars"

2013 Sep *RAL seminar, University of California, Berkeley*
"Magnetic Activity Past the Bottom of the Main Sequence"

2013 May *At 'Brown Dwarfs Come of Age' (Fuerteventura, Spain)*
"The Observed Rotation/Activity Relations of Ultracool Dwarfs"

2013 May *At 'Radio Astronomy in the LSST Era' (Charlottesville, USA)*
"ASGARD: A Large Survey for Galactic Radio Transients"

2013 Apr	*OIR seminar, Harvard-Smithsonian Center for Astrophysics* "Magnetic Activity Past the Bottom of the Main Sequence"
2012 Nov	*CfA postdoctoral symposium, Harvard-Smithsonian Center for Astrophysics* "ASGARD: A Large Survey for Galactic Radio Transients"
2012 Aug	*Exit seminar, UC Berkeley* "Exploring the Dynamic Radio Sky with the Allen Telescope Array"
2012 Jan	*At AAS Meeting #219 (Austin, USA)* "AGILITE: An ATA Survey to Characterize the Population of Galactic Radio Transients and Variables"
2011 Sep	*Radio & Geoastronomy lunch talk, Harvard-Smithsonian Center for Astrophysics* "Exploring the Transient Radio Sky with the Allen Telescope Array"
2011 Sep	*At 'Second Workshop on 3rd Generation Calibration in Radio Astronomy' (Albufeira, Portugal)* "ATA Dishes and Beamshapes"
2011 Feb	*Radio Astronomy Lab seminar, UC Berkeley* "Understanding Microquasar Jets: Clues from Multiband Observations of a Cyg X-3 Flare"
2010 Mar	*At 'Third RFI Mitigation Workshop' (Groningen, Netherlands)* "The RFI Environment at Hat Creek Radio Observatory"

Exhaustive List of Professional Software Contributions

These are quantified in commits to public source code repositories on GitHub and ordered by date of my most recent commit.

2024 Jan	pkgw/rubbl *"Rust + Hubble = astrophysics in Rust"* 14 stars, 5 forks, 6 contributors, 529 commits (63% of repository total)
2024 Jan	pkgw/elfx86exts *"Decode an ELF/x86 binary and print out which instruction set extensions it uses."* 181 stars, 15 forks, 10 contributors, 211 commits (57% of repository total)
2023 Dec	tectonic-typesetting/tectonic *"A modernized, complete, self-contained TeX/LaTeX engine, powered by XeTeX and TeXLive."* 3617 stars, 134 forks, 54 contributors, 2785 commits (74% of repository total)
2023 Nov	pkgw/rimphony *"An experimental reimplementation of Symphony in the Rust language"* 3 stars, 0 forks, 4 contributors, 180 commits (87% of repository total)
2023 Oct	conda-forge/staged-recipes *"A place to submit conda recipes before they become fully fledged conda-forge feedstocks"* 664 stars, 4329 forks, 100 contributors, 218 commits (<1% of repository total)
2023 Aug	pkgw/pwkit *"Miscellaneous science/astronomy tools"* 23 stars, 6 forks, 1 contributors, 771 commits (100% of repository total)
2023 Aug	tectonic-typesetting/tectonic-typesetting.github.io *"The Tectonic website."* 3 stars, 14 forks, 15 contributors, 130 commits (63% of repository total)
2023 Feb	pkgw/worklog-tools *"Framework for generating CV, publications list, etc."* 10 stars, 3 forks, 1 contributors, 155 commits (100% of repository total)
2023 Jan	pkgw/omegaplot *"Easy, attractive, better-than-publication-quality plots in Python"* 9 stars, 1 forks, 1 contributors, 444 commits (100% of repository total)
2022 Nov	pkgw/conda-recipes *"Miscellaneous 'recipes' for the Conda packaging system."* 17 stars, 10 forks, 2 contributors, 601 commits (100% of repository total)
2022 Nov	pkgw/bibtools *"Command-line bibliography manager"* 13 stars, 3 forks, 1 contributors, 343 commits (100% of repository total)
2022 Oct	pkgw/bloomdemo *"A simple Python project implementing a Bloom filter for fooling around with Git."* 1 stars, 15 forks, 9 contributors, 37 commits (80% of repository total)
2022 May	HERA-Team/librarian *"The HERA Librarian."* 7 stars, 8 forks, 10 contributors, 302 commits (49% of repository total)
2022 Apr	tectonic-typesetting/tectonic-staging *"Staging files from the TeXLive repository for use in Tectonic."* 10 stars, 5 forks, 3 contributors, 421 commits (99% of repository total)
2019 Aug	HERA-Team/aipy *"Astronomical Interferometry in PYthon (AIPY)"* 42 stars, 26 forks, 19 contributors, 102 commits (16% of repository total)
2019 Jun	pkgw/tex-stuff *"Helpful LaTeX files"* 27 stars, 4 forks, 1 contributors, 47 commits (100% of repository total)
2019 Feb	HERA-Team/pyuvdata *"A python model for interferometry data."* 75 stars, 24 forks, 35 contributors, 34 commits (1% of repository total)
2018 Nov	HERA-Team/hera_mc *"The HERA monitor and control (M&C) system."* 3 stars, 3 forks, 13 contributors, 140 commits (4% of repository total)

2018 Oct	pkgw/dbus-cplusplus *"Forked version of dbus-c++ 0.9.0 that fixes various compilation issues."* 0 stars, 3 forks, 6 contributors, 12 commits (6% of repository total)
2018 Sep	HERA-Team/hera-images *"Dockerized framework for testing HERA software."* 1 stars, 0 forks, 4 contributors, 140 commits (92% of repository total)
2018 Jun	pkgw/python-bungee-jump *"90-minute intro to basic Python programming for beginners"* 0 stars, 0 forks, 1 contributors, 39 commits (100% of repository total)
2018 May	HERA-Team/scanalyzer *"Interactive frequency/time visibility visualizer."* 2 stars, 0 forks, 1 contributors, 26 commits (100% of repository total)
2018 Feb	pkgw/casa *"A fork of CASA with support for Python 3"* 2 stars, 1 forks, 28 contributors, 10 commits (<1% of repository total)
2018 Jan	pkgw/blobman *"A tool for managing blobs of binary data."* 0 stars, 0 forks, 1 contributors, 43 commits (100% of repository total)
2017 Oct	pkgw/dedalus-builder *"Make system-tuned Conda packages of the Dedalus differential equation solver."* 1 stars, 1 forks, 1 contributors, 25 commits (100% of repository total)
2017 Sep	pkgw/symphony *"Calculate synchrotron radiative transfer coefficients"* 0 stars, 0 forks, 3 contributors, 67 commits (28% of repository total)
2017 Feb	pkgw/iraf *"A hacked-up version of IRAF that is marginally more buildable"* 0 stars, 0 forks, 2 contributors, 52 commits (53% of repository total)
2017 Jan	dfm/emcee *"The Python ensemble sampling toolkit for affine-invariant MCMC"* 1396 stars, 428 forks, 63 contributors, 6 commits (1% of repository total)
2016 Dec	HERA-Team/RTP *"The HERA Real-Time Pipeline for data processing."* 2 stars, 2 forks, 7 contributors, 17 commits (4% of repository total)
2016 Dec	pkgw/MOSFiT *"The Modular Open Source Fitter for Transients"* 0 stars, 0 forks, 2 contributors, 1 commits (<1% of repository total)

2016 Nov	jadexter/grtrans *"Public Kerr metric polarized ray tracing radiative transfer code"* 29 stars, 8 forks, 2 contributors, 3 commits (1% of repository total)
2016 May	HERA-Team/omnical *"Redundant calibration for low frequency radio interferometers"* 0 stars, 0 forks, 7 contributors, 1 commits (<1% of repository total)
2016 Mar	pkgw/miriad-macport *"A Portfile allowing CARMA MIRIAD to be built in MacPorts, and support files"* 2 stars, 0 forks, 1 contributors, 131 commits (100% of repository total)
2016 Mar	pkgw/carma-miriad *"A mirror of the CVS repository for the CARMA version of the MIRIAD radio astronomy package"* 4 stars, 3 forks, 5 contributors, 264 commits (5% of repository total)
2016 Feb	pkgw/webtex *"Mostly-complete LaTeX engine implemented fully in JavaScript."* 33 stars, 2 forks, 1 contributors, 851 commits (100% of repository total)
2015 Oct	pkgw/precastro *"Precision astronomy libraries in Python"* 5 stars, 3 forks, 1 contributors, 65 commits (100% of repository total)
2015 Oct	pkgw/miriad-python *"Clean Python bindings to the MIRIAD radio astronomy package"* 9 stars, 3 forks, 2 contributors, 421 commits (100% of repository total)
2015 May	pkgw/yoitsagrb *"Get Yos from space."* 1 stars, 0 forks, 1 contributors, 16 commits (64% of repository total)
2014 Oct	pkgw/ucastrothesis *"Up-to-date LaTeX files for making a University of California PhD thesis"* 11 stars, 7 forks, 2 contributors, 69 commits (99% of repository total)
2013 Nov	pkgw/aoflagger *"André Offringa's RFI flagger"* 6 stars, 3 forks, 2 contributors, 2 commits (1% of repository total)
2013 Nov	pkgw/mirtoms *"Hacked "filler" to create CASA measurement sets from MIRIAD data"* 1 stars, 1 forks, 1 contributors, 80 commits (100% of repository total)

Exhaustive List of Public Engagement Activities

2022 Jun	*Memphis Astronomical Society* Public talk: "AAS WorldWide Telescope"
2022 Jun	*Warren Astronomical Society* Public talk: "AAS WorldWide Telescope"

2017 Aug	*New Scientist* Interview: "We've just seen 15 new mysterious cosmic radio bursts from space"
2017 May	*NewScientist.com* Background interview: "Strange cosmic radio burst pinned down to giant stellar nursery"

2017 May   *gizmodo.com*
Background interview: "The Newest Cosmic Radio Burst Has Stumped Scientists"

2017 Jan   *New Scientist*
Interview: "Cosmic radio bursts tracked to home galaxy for first time"

2017 Jan   *gizmodo.com*
Interview: "Astronomers Pinpointed the Location of Multiple Weird Radio Bursts Beyond Our Galaxy"

2016 Nov   *techcrunch.com*
Background interview: "NSF may shut down West Virginia's Green Bank Telescope and people aren't happy"

2016 Aug   *Zeit Online (Germany)*
Background interview: "An Interesting SETI Candidate in Hercules"

2016 Apr   *"Astropreneurship and Medicine in Space Hackathon" (Harvard University)*
Judge

2016 Apr   *Harvard-Smithsonian Center for Astrophysics*
Press release: "Fast Radio Burst 'Afterglow' Was Actually a Flickering Black Hole"

2016 Mar   *Gizmodo*
Interview: "Mysterious Cosmic Radio Bursts Just Got Even More Interesting"

2016 Mar   *Scientific American*
Background interview: "The Recurring Question: Where Do Fast Radio Bursts Come from?"

2016 Mar   *mashable.com*
Background interview: "Astronomers discover repeating radio burst that flashes like a strobe light"

2016 Feb   *mashable.com*
Interview (syndicated): "Mysterious burst of radio waves traced to galaxy billions of light-years away"

2015 Dec   *NASA JPL*
Press release: "NASA Telescopes Detect Jupiter-Like Storm on Small Star"

2015 Dec   *bild der wissenschaft (Germany)*
Interview: "The First Millimeter Detection of a Non-Accreting Ultracool Dwarf"

2015 Nov   *Sky at Night Magazine (UK)*
Interview: "Small red dwarf rivals our own Sun"

2015 Nov   *Astronomy Now (UK)*
Interview: "The little star with a mighty magnetic punch"

2015 Nov   *ABC "StarStuff" astronomy podcast (Australia)*
Background interview: "Cool, Dim Dwarf Star is Magnetic Powerhouse"

2015 Nov   *CfA / NRAO / ALMA*
Press release: "Tiny, Ultracool Star is Super Stormy"

2015 Sep   *"Astrotweeps" Twitter account*
Guest tweeter: "week in the life" of a scientist

2015 Apr   *Harvard-Smithsonian Center for Astrophysics*
Participant, "Cambridge Explores the Universe" open house

2015 Mar   *East Boston High School*
Classroom visitor, Cambridge Science Festival "Einstein in the Classroom" program: teaching 9th graders about General Relativity

2013 Feb   *Universe Today (universetoday.com)*
Interview: "In Reality, Nebulae Offer No Place for Spaceships to Hide"

2013 Jan   *Space.com*
Interview (syndicated): "Faint Radio Signals Reveal Secrets of Failed Stars"

2010–2012   *UC Berkeley*
Webmaster, "Science@Cal" public scientific lecture series

2007–2012   *UC Berkeley*
Participant, annual "Cal Day" open house activities for Department of Astronomy

2010 Jun   *Hat Creek Radio Observatory*
Participant, "Cakes, Pies, and Starry Skies" Open House and Star Party

2009   *UC Berkeley*
Co-organizer, International Year of Astronomy 2009 activities: planning outreach events, staffing them

2009 Oct   *San Francisco Amateur Astronomers*
Public talk: "Exploring the Invisible Universe: The Past and Future of Radio Astronomy"

2009 Sep   *Peninsula Astronomical Society (San Mateo, CA)*
Public talk: "Exploring the Invisible Universe: The Past and Future of Radio Astronomy"

2009 Jun   *East Bay Astronomical Society*
Public talk: "Exploring the Invisible Universe: The Past and Future of Radio Astronomy"

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As of Jan 24, 2024. The latest version of this document may be found at https://newton.cx/~peter/cv/.