# AMY E. KIMBALL

Office Address: Contact Information:

CSIRO Astronomy & Space Science
PO Box 72
E-mail: Amy.Kimball@xxxxx.xx
Epping, NSW 1710

Australia

Employment History CSIRO ASTRONOMY AND SPACE SCIENCE

Jun 2013 – present

Office of the Chief Executive Postdoctoral Fellow

- Australia Telescope Compact Array (ATCA) user support, including two weeks per year as Duty Astronomer and maintenance of ATCA user manual
- ASKAP commissioning: test ASKAP data reduction with ASKAPSoft
- o Facilitator of twice-monthly science Journal Club

NATIONAL RADIO ASTRONOMY OBSERVATORY

Sep 2010 - May 2013

North American ALMA Science Center (NAASC) Postdoctoral Fellow

- ALMA data reduction: science verification data, Early Science data (hands-on and testing data-reduction pipeline)
- Software testing: CASA algorithms (simulations of ALMA data), ALMA data reduction scripts/pipeline, ALMA Observing Tool
- User support: led tutorials on ALMA proposals and data reduction, maintained online CASAGuides documentation, staffed help-desk
- o Organized weekly AGN Journal Club group

### Education University of Washington

Ph.D. in Astronomy

Aug 2010

"Statistical Studies of Radio Sources with Multi-Wavelength Large Sky Surveys"

Dissertation Advisor: Dr. Željko Ivezić

University of Washington

M.S. in Astronomy

Aug 2005

University of Michigan

B.S. in Mathematical Physics and Honors Physics May 2003

**Honors** National Science Foundation Graduate Research Fellowship 2005 – 2010

Achievement Rewards for College Scientists (ARCS) Fellowship

Wiley Book Award for outstanding academics and/or research

2003 - 2006

Apr 2003

Professional Memberships

- American Astronomical Society (AAS)
- Astronomical Society of Australia (ASA)

  Early Career Research Chapter, Women in Astronomy Chapter
- International Astronomical Union (IAU)

  Division B (Facilities, Technologies and Data Science)

Division J (Galaxies and Cosmology)

## Computer Skills

Reducing/imaging interferometric data: CASA, Miriad, ASKAPSoft
Developing/maintaining software: MacOS, Linux, IDL, Python, C, C++, Fortran
Familiarity with: SQL, MySQL, SVN, XML, HTML, Perl, R, AWK

# Research Experience

CSIRO, Marsfield, NSW, Australia

2013 - present

- WISE infrared properties of AT20G 20-GHz radio sources
- o ALMA submillimetre properties of luminous QSOs
- o Multi-wavelength studies of the most luminous QSOs

#### NRAO, CHARLOTTESVILLE, VA

2010 - 2013

- Radio Luminosity Distribution of QSOs: Star Formation and AGNs
- o Radio-Intermediate Quasars in WISE and NVSS
- o Dependence of Quasar Spectra on Radio Morphology in FIRST and SDSS

University of Washington, Seattle, WA

2004 - 2010

Supervisor: Dr. Željko Ivezić

- o Unified Radio Catalog from NVSS, FIRST, WENSS, GB6, and SDSS
- Radiative Transfer Modeling of IR Emission from Externally Heated Dust Clouds
- A Search for Radio Stars in FIRST and SDSS

NATIONAL RADIO ASTRONOMY OBSERVATORY, SOCORRO, NM

Supervisor: Dr. Steven Myers

Jul – Sep~2009

• Developing an Automated clean Task for CASA

Los Alamos National Laboratory, Los Alamos, NM

Aug - Sep 2004

Supervisor: Dr. Przemyslaw Wozniak

• Simulating the Detection Efficiency of RR Lyrae Stars in the NSVS

University of Washington, Seattle, WA

Oct - Dec 2004

Supervisor: Dr. Eric Agol

• Observing the Einstein Cross with SIRTF

MAX-PLANCK-INSTITUT FÜR ASTRONOMIE, HEIDELBERG, GERMANY Aug 2002 Supervisors: Dr. Hans-Walter Rix and Dr. Eva Grebel

• Statistical Studies of Small-Scale Galaxy Clustering in the SDSS

University of Michigan, Ann Arbor, MI

May 2001 - Aug 2003

Supervisor: Dr. Timothy McKay

• Statistical Studies of Small-Scale Galaxy Clustering in the SDSS

# Working Groups

- ASKAP Commissioning and Early Science Team (ACES)
- ASKAP Evolutionary Map of the Universe (EMU) Genius Group ("EGG")
- US Radio Futures, Galaxy Assembly Through Cosmic Time working group
- Radio-galaxies subgroup of Galaxies and Cosmology working group for Australian Astronomy Decadal Plan (2015–2025)
- VLA Sky Survey Extragalactic working group

Amy Kimball 2 Curriculum Vitae

#### Committees

- CASS Diversity Committee (inaugural member)
- Aug 2014 present
- Develop guidelines for inclusive policies for staff-organized events (e.g., workshops and conferences)
- Develop "information escrow" process for Ombudsman for confidential documents relating to bullying and harassment
- Assist in CASS application for bronze-level ASA Pleiades Award for committeent to advancing women in astronomy [successful]
- SOC and vice-chair of LOC, Southern Cross Conference Series VII
   Powerful AGN and Their Host Galaxies Across Cosmic Time
   16-20 Jun 2014
- SOC and LOC
  - Radio Astronomy in the LSST Era, NRAO, Charlotttesville, VA
- 6-8 May 2013
- Hiring committee for NRAO/NAASC post-doctoral fellow
- Jan-Mar 2011

#### Referee

I have referred papers for the following journals:

- Monthly Notices of the Astronomical Society (MNRAS)
- $\circ$  The Astrophysical Journal (ApJ)
- Publications of the Astronomical Society of Australia (PASA)
- Journal of Astrophysics and Astronomy (*JOAA*).

I also reviewed a grant proposal for the National Science Centre of Poland (NCN), for which I received a small remuneration.

# Invited Talks /Colloquiua

Max-Planck-Institut für Radioastronomie, Bonn, Germany (sch	neduled) 26 Oct 2015
Istituto di radioastronomia, Bologna, Italy (sch	neduled) 19 Oct 2015
European Space Observatory, Garching, Germany (sch	neduled) 16 Oct 2015
Curtin University, Bentley, WA, Australia	5 Nov 2014
University of Western Australia, Crawley, WA, Australia	4 Nov 2014
Exploiting MWA surveys for extragalactic studies, Perth, WA, Au	ıstralia Oct 2014
Multi-wavelength identifications for low-frequency radio surve	eys
Transformational Science in the ALMA Era, Charlottesville, VA,	USA <i>Aug 2014</i>
Review of Quasars	
Macquarie University, North Ryde, NSW, Australia	14 Feb 2014
CSIRO Astronomy and Space Science, Marsfield, NSW, Australia	a 18 Sep 2013
The Institute for Advanced Study, Princeton, NJ, USA	12 Jan 2010
National Radio Astronomy Observatory, Socorro, NM, USA	24 Apr 2009
National Radio Astronomy Observatory, Charlottesville, VA, USA	A 22 Sep 2008
The Johns Hopkins University, Baltimore, MD, USA	19 Sep 2008

Amy Kimball 3 Curriculum Vitae

Successful Proposals (as PI)	Weighing the super-massive black hole in QSO J1554+1937 Feb 2019 P.I. Mark Lacy, NRAO [Australian PIs not allowed for FT mode] Gemini: Fully allocated, 1.4 hours Fast-Turnaround (FT) mode	!5
	Outflows and feedback in the most luminous QSOs in the Universe Mar 202 P.I. Amy Kimball, CSIRO Gemini: Fully allocated, 19.5 hours in semester 2014B	!4
	STAR FORMATION AND RADIO-JET ACTIVITY IN THE MOST LUMINOUS QSOS IN THE UNIVERSE P.I. Amy Kimball, NRAO VLA: Allocated 8.5 hours at priority C in semester 2013B	13
	STAR-FORMATION ACTIVITY IN HOST GALAXIES OF THE MOST LUMINOUS QSOS IN THE UNIVERSE P.I. Amy Kimball, NRAO ALMA: Fully allocated, 4.6 hours in Cycle 1	12
	Double-lobed radio quasars in BOSS  P.I. Amy Kimball, University of Washington  SDSS III BOSS: Fully allocated, 2300 spectroscopic ancillary fibers	!0
Mentoring/ Teaching	RESEARCH ADVISOR (GRADUATE STUDENT)  o Jesse Swan, University of Tasmania / CASS student  Evolution of star formation and black hole activity across cosmic time	nt
	RESEARCH ADVISOR/MENTOR (UNDERGRADUATE STUDENTS)  • Ivan Sadovoy and Arvind Hughes, Macquarie University  Aug – Oct 202	15
	Reducing ATCA data with CASA  • Gabriel Murphy, CASS summer student, CSIRO  Nov 2013 – Feb 201	!4
	Searching for luminous, obscured radio quasars  • Valerie Marchenko, NSF-REU student NRAO  Testing Evolutionary Models of Giant Radio Sources  Jun - Aug 202	! 1
	• Rosalie McGurk, University of Washington  Principal Component Analysis of SDSS Stellar Spectra  2008 – 200	)9
	VOLUNTEER, PRE-MAJOR IN ASTRONOMY PROGRAM (PRE-MAP)  http://www.astro.washington.edu/users/premap/  Mentored students in preparation of final poster/presentation  Supervised students on weekend field trip to LIGO	17
	Teaching Assistant, U. Washington  o Introduction to Astronomy (four courses)  o The Planets (two courses)	)8
	Tutor, Keller Physics Program, U. Michigan  o Introduction to Electricity and Magnetism  Winter 200	12

Outreach	Guest speaker for Atlassian, Sydney, NSW	(scheduled) 27 Nov 2015		
	Science fair judge at Gosford Public School, Gosford, NSW	17 Jun 2015		
	Guest speaker for Northern Sydney Astronomical Society	16 Sep 2014		
	Guest speaker for Central West Astronomical Society of A	ustralia 15 May 2014		
	Parkes Teacher Workshop for science teachers	2–4 May 2014		
	AAS Congressional Visits Day, Washington, DC	12–13 Mar 2013		
	NRAO-Charlottesville Astronomy Festival	$5\ Nov\ 2011$		
	Planetarium shows for school groups	2003 - 2010		
	University of Washington Astronomy Open House (annual	in Spring) 2004 – 2008		
	Workshop presenter, U. Washington Making Connections I	Program Spring 2004		
	http://depts.washington.edu/womenctr/programs/making-connections			
	Workshop presenter, Seattle Expanding Your Horizons	Mar 2004		
	http://www.seattleu.edu/scieng/outreach/seyh/			
	U. Michigan Society of Physics Students Inreach Program	2001 - 2003		
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Workshops	Astronomy 7, Sydney, NSW	(scheduled) 3–6 Nov 2015		
Attended	Women in Astronomy Workshop 2015 (CAASTRO)	22–23 Jul 2015		
(Selected)	Writing Winning Scientific Proposals (CSIRO)	26 Feb 2015		
	Looking Up, Looking Down: Interdisciplinary Approaches	17–18 Sep 2014		
	to Remote Sensing, Image Analysis, and Data Visualiza	tion (AAO)		
	ASA Early Career Researcher Mentoring Workshop	2–3 Jun 2014		
	Project Management Fundamentals (CSIRO)	$56\ Nov\ 2013$		
	Innovations in Data-Intensive Astronomy (NRAO)	35~May~2011		
	National Virtual Observatory Summer School	6–14 Sep 2006		
	NRAO Summer Synthesis Imaging Workshop	13–20 Jun 2006		
	Summer School in Statistics for Astronomers & Physicists	6–10 Jun 2006		

Amy Kimball 5 Curriculum Vitae