Research Data Systems Integration Specialist, Libraries	Office: (520) 621-5975
Affiliate Assistant Astronomer, Steward Observatory	Email: chunly@email.arizona.edu
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Tucson, AZ 85721	git: <u>astrochun</u> ORCID: 0000-0002-4245-2318

## **RESEARCH INTERESTS**

- (1) Galaxy evolution and formation, star formation, chemical enrichment, diagnostic spectroscopy
- (2) Extragalactic radio jets on sub-parsec scales, high-resolution very long baseline interferometry

## **EDUCATION**

University of California, Los Angeles, **Ph.D.**, Astronomy

Advisor: Matthew A. Malkan

Thesis: "The Universe as Viewed from Star-forming Galaxies over the Past 10 Billion Years"

University of California, Los Angeles, M.Sc., Astronomy, Summa Cum Laude 2006

Advisor: Matthew A. Malkan

Thesis: "The Luminosity Function and Star Formation Rate between Redshifts of 0.07 and 1.47 for Narrowband Emitters in the Subaru Deep Field"

University of Arizona, Tucson, B.Sc., Astronomy and Physics, Magna Cum Laude 2004

#### **APPOINTMENTS**

Research Data Systems Integration Specialist, University of Arizona (Libraries)	09/2019 –
Affiliate Assistant Astronomer, University of Arizona (Steward Observatory)	06/2016 —
Queue/Professional Observer, MMT Observatory	09/2016 - 09/2019
NASA Postdoctoral Fellow, NASA GSFC (Advisor: Jane Rigby)	10/2013 - 09/2016
Visiting Fellow, STScI	10/2013
Giacconi Postdoctoral Fellow, STScI (Advisor: Ron Allen)	09/2010 - 10/2013
NASA Graduate Student Research Program (GSRP) Fellow, UCLA/JPL	09/2008 - 08/2010
(Advisors: Daniel Stern and Leonidas Moustakas)	
Summer Graduate Student Researcher, Carnegie Observatories	06/2008 - 09/2008
Graduate Student Researcher, UCLA	03/2005 - 06/2008
Graduate Summer Researcher, NRAO-Socorro	06/2004 - 09/2004
NASA Arizona Space Grant Researcher, NOAO-Tucson	08/2003 - 05/2004
NSF REU Summer Researcher, NRAO-Socorro	06/2003 - 08/2003

#### HONORS AND AWARDS

2013 – NASA Postdoctoral Fellowship, NASA GSFC

2010 – Giacconi Postdoctoral Fellowship, STScI

2009 - Chambliss Astronomy Achievement Student Award, American Astronomical Society

2008 – Graduate Student Research Fellowship, NASA

2008 – Incentive Award for Extramural Funding, UCLA's Astronomy Department

2006 - Graduate Research Mentorship Award, UCLA

2005 – Departmental Outstanding Teaching Award, UCLA

- 2004 Eugene V. Cota-Robles Fellowship, UCLA
- 2003 Galileo Circle Scholarship, U. Arizona
- 2002 Fred and Ida McCormick Scholarship, U. Arizona
- 2002 San Diego Astronomy Association's Lucas Scholarship, U. Arizona
- 2001 Phi Eta Sigma National Honor Society, U. Arizona

#### **SERVICE**

Referee for Astrophysical Journal, Astrophysical Journal Letters

Referee for Astronomy & Astrophysics

Referee for Research in Astronomy & Astrophysics

Referee for Monthly Notices of the Royal Astronomical Society

NASA Astrophysics Data Analysis Program (ADAP), Peer Reviewer 2015

Hubble Space TelescopeTime Allocation Committee, Peer Reviewer2014 (Cycle 22)CFHT (Taiwan) Time Allocation, External Referee2012–2014China Telescope Access Program, External Referee2013, 2015Hubble Space TelescopeTime Allocation Committee, Support Staff2011, 2012Postdoctoral Researcher Mentoring Committee for STScI2011 – 2012

JHU-STScI CoolSci/HotSci Colloquium, Organizer for STScI

JHU-STScI Wine and Cheese Talk Series, Organizer for STScI

STScI/JHU Very Wide Field Surveys Conference, Local organizer

2011

### ADVISORSHIP AND EDUCATIONAL PUBLIC OUTREACH

Summary: I have mentored or am mentoring 11 undergraduate students and one data analyst with in-person interactions on a regular basis

Caroline McCormick, undergraduate at the University of Arizona Mentoring on the evolution of the mass—metallicity relation

2018 –

Scott McKinley, University of Arizona, NASA Space Grant Undergraduate Researcher

2017–2018

Mentored on metallicity diagnostics and recalibrating such diagnostics for the high-z universe

Rafia Bushra, undergraduate at the University of Arizona Mentored on the evolution of the mass–metallicity relation 2017

Reagen Leimbach, University of Arizona, NASA Space Grant Undergraduate Researcher 2017 – Mentoring on metallicity diagnostics and recalibrating such diagnostics for the high-z universe

Drew Weldon, University of Arizona, NASA Space Grant Undergraduate Researcher

Mentoring on stellar population in dwarf galaxies. Project has culminated into a first-author

MNRAS publication for Drew

Kaitlyn Shin, Stanford University, NASA Summer Student

2015 -

Mentored for 10 weeks on studying the environment effects on star-forming galaxies. Project has culminated into a first-author paper submitted to *MNRAS*.

NASA's Hubble 25<sup>th</sup> Anniversary Family Day Event

2015

Answered questions from the general public at Smithsonian's National Air and Space Museum (Steven F. Udvar-Hazy Center)

Mithi de los Reyes, North Carolina State University, STScI Summer Student

Mentored for over a year on analyzing spectra. Project has culminated into a first-author

peer-review paper in the Astronomical Journal for Mithi. Bryan Hilbert, Senior Research Instrument Analyst at STScI 2013 Advised for several months on reduction of ground-based near-infrared imaging data. 2011 - 2013Project ASTRO I visited a public school and spoke with over 100 4th and 5th graders about astronomy throughout the academic year. Jesse Feddersen, Indiana University, STScI Summer Student 2012 Mentored for 10 weeks on analyzing spectra. Attending Yale for Astronomy Ph.D. Mary Christian, undergraduate student at UCLA 2009 Mentored for 10 weeks on analyzing spectra. 2007 - 2008Celestine Grady, undergraduate student at UCLA Mentored for a year on data reduction. Her work has contributed toward at least two co-authored papers. She received a M.Sc. from U. California–Davis. Christopher Rodriguez, undergraduate student at UCLA 2005 - 2007Mentored for two years on space-based data reduction and analysis. **TEACHING EXPERIENCE** Software/Data Carpentry Instructor, the Carpentries July 2018 -Guest Lecturer, "The Gaseous Interstellar Medium" (UCLA) Spring 2009 Graduate-level course. Discussed nebular emission from ionized gas. Teaching Assistant, "Astrophysics II: Stellar Evolution and Galaxies" (UCLA) Spring 2005 A required course offered for astronomy and physics majors. Led weekly discussions and created in-course laboratory assignments for a classroom of ~30 students. Received an Outstanding Teaching Award in 2005. Teaching Assistant, "Astrophysics I: Stars and Nebulae" (UCLA) Winter 2005 A required course offered for astronomy and physics majors. Led weekly discussions and created in-course laboratory assignments for a classroom of ~30 students Teaching Assistant, "Nature of the Universe" (UCLA) Fall 2004 An introductory astronomy course for non-science majors. Led weekly discussions and laboratory exercises for a classroom of ~30 students. PROFESSIONAL AFFILIATIONS Member, International Astronomical Union 2018 -2008 -Member, NewHα Survey Science Collaboration Member, Subaru Deep Field Science Collaboration 2005 -

## **GRANTS AND OBSERVING PROPOSALS**

Member, American Astronomical Society

Summary: Over 36 telescope nights approved as PI or Science PI, and nearly the equivalent of ~156 nights in total. Approximately \$300,000 in grants have been awarded as PI or Science PI.

2004 - 2017

Role	Source	Name	Year	Amount
PI	NASA	Keck PI grant	2017	\$12,500
PI	NASA	Spitzer GO program	2015	\$10,000
Co-I	NASA	Hubble GO program	2015	N/A
Science PI	NASA	Astrophysics Data Analysis Program	2015	\$104,400
PI	NASA	Keck PI grant	2015	\$16,000
PI	NASA	Keck PI grant	2015	\$13,000
PI	NASA	Postdoctoral Fellowship Travel Grant	2015	\$8,000
PI	NASA	Keck PI grant	2014	\$12,750
PI	NASA	Postdoctoral Fellowship Travel Grant	2014	\$8,000
PI	NASA	Postdoctoral Fellowship Travel Grant	2013	\$8,000
PI	NASA	Giacconi Fellowship Start-up Grant	2010	\$48,000
Science PI	NASA	Graduate Student Researcher Fellowship	2009	\$30,000
Science PI	NASA	Graduate Student Researcher Fellowship	2008	\$30,000

Observatory	Instrument	Nights/Hours as PI or Science PI	Total Nights or Hours	Number of Proposals
Hubble	WFC3	_	20 orbits	1
Spitzer	IRAC	16.5 hr	16.5 hr	1
10-m Keck I	MOSFIRE	2	5.5	4
10-m Keck II	DEIMOS	4	10	6
10-m Keck II	NIRSPEC	1	1	1
8.2-m Subaru	FMOS	7	13	6
8.2-m Subaru	Suprime-Cam	_	9.5	4
8.2-m Subaru	MOIRCS	_	4	2
8.2-m Subaru	FOCAS	_	2	1
8.2-m Subaru	IRCS+A0188	_	0.5	1
8.1-m Gemini-North	GNIRS	36.1 hr	36.1 hr	3
6.5-m Magellan	FourStar	_	4	1
6.5-m MMT	Hectospec	3.5	3.5	3
6.5-m MMT	MMIRS	2.5	2.5	2.5
4-m Kitt Peak–Mayall	NEWFIRM	8	21	6
4-m Kitt Peak–Mayall	MOSAIC	2	2	1
4-m Cerro Tololo–Blanco	NEWFIRM	5	14	2
4-m UKIRT	WFCAM	_	4	2
ALMA	450,880,1100μm	_	1.1 hr	1

CARMA	1.3mm imaging	_	10 hr	1
SMA	1100μm imaging	_	1	1
NRAO VLBA	7mm imaging	9 hr	561 hr	13
NRAO VLA	21-cm imaging	_	28 hr	1

# PUBLICATIONS (As of April 1, 2020)

41 peer-review papers, 13 are first-authored

2415 citations to peer-review papers, 643 citations to first-authored papers

Hirsch *h*-index: 26 papers with  $\geq$  26 citations

A complete list of publications can be found here: <a href="https://astrochun.github.io/publication/">https://astrochun.github.io/publication/</a>

## **TALKS**

# Invited Talks or Colloquia:

Event	Date
Invited: NOAO Science Talk (Tucson, AZ)	04/2019
Invited: Special talk, Internal Council of UNAM-Institute of Astronomy (Mexico City, Mexico)	11/2015
Invited: NASA Sciences and Exploration Directorate Seminar (Greenbelt, MD)	06/2014
Shanghai Astronomical Observatory Colloquium (Shanghai, China)	03/2014
Invited: NAOJ Subaru Seminar (Hilo, HI)	03/2014
JHU-STScI HotSci Colloquium (Baltimore, MD)	07/2013
Invited: Hubble Fellows Symposium (Baltimore, MD)	03/2013
Invited: Dark Cosmology Centre (Copenhagen, Denmark)	01/2013
Invited: NAOJ Subaru Seminar (Hilo, HI)	04/2012
Invited: ASU Cosmology Seminar (Tempe, AZ)	03/2012
JHU-STScI HotSci Colloquium (Baltimore, MD)	08/2011
CTIO Science Colloquium (La Serena, Chile)	03/2011
Invited: JPL Astrophysics Lunch Talk Series (Pasadena, CA)	06/2008
Invited: NOAO Scientific Lunch Talk Series (Tucson, AZ)	04/2007

# Conference Talks:

Event	Date
MMT 40 <sup>th</sup> Symposium (Tucson, AZ)	05/2019
Galaxy of Many Colours Conference (Marstrand, Sweden)	06/2015
AAS 225 <sup>th</sup> Meeting (Seattle, WA)	01/2015
Keck Science Meeting (Pasadena, CA)	10/2014
European Week of Astronomy and Space Sciences (Geneva, Switzerland)	07/2014

AAS 223 <sup>rd</sup> Meeting (Washington, DC)	01/2014
AAS 221st Meeting (Long Beach, CA)	01/2013
AAS 215th Meeting Dissertation Talk (Washington, DC)	01/2010
Harvesting the Redshift Desert Conference (Marseille, France)	07/2009

# Seminars and Other Talks (Since 2010):

Event	Date
STScI Galaxy Journal Club (Baltimore, MD)	03/2016
East Asian Observatory Seminar (Hilo, HI)	03/2015
University of Maryland CARMA Seminar (College Park, MD)	11/2014
STScI Galaxy Journal Club (Baltimore, MD)	11/2014
JHU CAS Wine and Cheese Seminar (Baltimore, MD)	11/2014
NASA Goddard Stellar and Extragalactic Astronomy Lunch (Greenbelt, MD)	12/2012
NOAO Scientific Lunch Talk (Tucson, AZ)	03/2012