

# Karen L. Masters

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CONTACT INFORMATION	Physics & Astronomy Department Haverford College 370 Lancaster Avenue, KINSC L103 Haverford, PA 19041, USA	Voice: +1 (610) 202-6660 E-mail: klmasters@haverford.edu Web: www.haverford.edu/users/klmasters Twitter: @KarenLMasters
PROFESSIONAL APPOINTMENTS	<b>Physics &amp; Astronomy Department, Haverford College, PA, USA</b> Professor of Astronomy and Physics (Chair 2022- ) Associate Professor of Astronomy and Physics	<b>2021 -</b> <b>Jan 2018 - 2021</b>
	<b>Institute of Cosmology and Gravitation, University of Portsmouth, UK</b> Reader in Astronomy and Astrophysics (equiv. Associate Prof.) (0.2 FTE Reader in Astronomy and Astrophysics) Senior Lecturer (equiv. Assistant Prof.) University Research Fellow Leverhulme Early Career Research Fellow (with Bob Nichol) The 2008 Peter and Patricia Gruber Foundation IAU Fellow (with Bob Nichol) (maternity leave Feb-Sep 2010)	<b>2015-2017</b> <b>Jan 2018 - Sept 2019)</b> <b>2014-2015</b> <b>2012-2014</b> <b>2010-2012</b> <b>2008-2010</b>
	<b>Harvard-SAO Center for Astrophysics, Cambridge, MA, USA</b> Smithsonian Visiting Scientist (with Andrés Jordán) Harvard Postdoctoral Research Fellow (with John Huchra) (maternity leave Mar-Jun 2007)	<b>July/Aug 2008</b> <b>Sept 2005- June 2008</b>
EDUCATION	Ph.D in Astronomy, <b>Cornell University</b> , Ithaca, NY, USA Thesis: <i>Galaxy flows in and around the Local Supercluster</i> , (Advisor: Martha Haynes) M.S. in Astronomy <b>Cornell University</b> , Ithaca, NY, USA B.A. in Physics (1st Class, Top of B.A. class), <b>Oxford University</b> , Oxford, UK	<b>August 2005</b> <b>January 2003</b> <b>June 2000</b>
SELECTED HONOURS AND AWARDS	<ul style="list-style-type: none"><li>• Royal Astronomical Society Group Achievement Award for Galaxy Zoo Team (June 2019)</li><li>• Elected SDSS-IV Spokesperson (July 2016); re-elected (July 2019)</li><li>• Named SDSS-IV “Architect” (2014).</li><li>• Winner, Women of the Future: Science 2014 (for “women who are shaping Britain’s future”).</li><li>• One of the “100 Women” of 2014, by the BBC.</li></ul>	
SELECTED RECENT PUBLICATIONS	<ul style="list-style-type: none"><li>• <i>A comparison of the baryonic Tully-Fisher relation in MaNGA and IllustrisTNG</i>. Goddy*, J. S., Stark, D. V., <b>Masters, K. L.</b>, Bundy, K., Drory, N., Law, D. R. 2023. MNRAS 520, 3895–3908.</li></ul>	
*UNDERGRAD CO-AUTHOR	<ul style="list-style-type: none"><li>• <i>Mass and Color Dependence of the Hubble Spiral Sequence</i>, Mengistu*, Petra ; <b>Masters, K. L.</b> 2023 RNAAS 7, 3.</li><li>• <i>The H I content of red geyser galaxies</i>. Frank*, E., Stark, David V., <b>Masters, K. L.</b> et al. 2023. MNRAS 519, 3312–3318.</li><li>• <i>Spirals in Galaxies</i>, Sellwood, J.A., &amp; <b>Masters, K. L.</b> 2022, ARA&amp;A 60.</li><li>• <i>How Bar Fraction Depends on Baryon Fraction</i>, Yang*, X &amp; <b>Masters, K.</b> 2022, RNAAS 6, 206</li><li>• <i>Galaxy Zoo: 3D - crowdsourced bar, spiral, and foreground star masks for MaNGA target galaxies</i>, <b>Masters, K. L.</b>, Krawczyk, C., Shamsi*, S., et al. 2021, MNRAS, 507, 3923.</li><li>• <i>HI-MaNGA: H I follow-up for the MaNGA survey</i>, <b>Karen L. Masters</b> et al 2019, MNRAS 488, 3396</li></ul>	
	<i>Summary: 177 publications in peer reviewed journals. Combined total of over 25,000 citations (from ADS; Astrophysics Data System), h-index=67.</i>	

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## SELECTED RESEARCH TALKS/SEMINARS

### Invited Conference Talks:

**Plenary Review Talk "Wide Field Spectroscopy vs. Galaxy Formation", Mar 2023** —  
**Invited talk at AAS241 Splinter Session on the Nancy Roman Space Telescope, Jan 2023**  
– Invited Review, Galactic Dynamics in the Era of Large Surveys, July 2019, Shanghai — MaNGA  
Collaboration Meeting, Oxford, Apr 2019 — Review Talk, Galactic Rings, Alabama, June 2018  
— Ten Years of Galaxy Zoo, Conference Summary, July 2017 — Multimedia in Physics Teaching  
& Learning, Milton Keynes Sept 2017 — Conference Summary, The Changing Faces of Galaxies,  
Tasmania, Australia, Sept 2016 — Invited Plenary, SDSS-IV Collaboration Meeting, Madison, WI,  
USA, June 2016 — "Sharing One Sky: SDSS, APOGEE and Astronomy Outreach, Chile, May  
2016 — UK Dark Energy Strategy Meeting, RAS, London, Jan 2016 — FM19 of the IAU General  
Assembly, Honolulu, Hawaii, USA, Aug 2015 — Plenary, SDSS Collaboration Meeting, Madrid,  
Spain, Jul 2015 — The Many Pathways to Galaxy Growth, Prato, Italy, Jun 2015 — Kavli Workshop  
on Citizen Science, Oxford, UK, Apr 2015 — RAS Ordinary Meeting, London, Mar 2015 — Chinese  
SDSS-VI Collaboration, NAOC, Beijing, China, Nov 2014 — Plenary, Sloan Digital Sky Survey  
Collaboration Meeting, Utah, USA, Jul 2014 — Plenary, Morphology in the Era of Large Surveys  
(ESO Workshop), Chile, Nov 2013 — Plenary, Evolutionary Paths in Galaxy Morphology, Sydney,  
Australia, Sept 2013 — Plenary, Cosmic Flows Meeting, Marseille, France, Jun 2013 – IAU SpS15:  
Data Intensive Astronomy, Beijing, China, Aug 2012 — Invited Discourse, 28th GA of IAU, Beijing,  
China, Aug 2012.

### Colloquia/Seminars (last five years):

**University of Texas Rio Grande Valley, Apr 2023 (remote) — GBO "65th Anniversary  
Colloquium Series", Sept 2022 (remote)** – Sydney Institute for Astronomy, Apr 2022 (remote)  
— UC Merced, Mar 2022 (remote) — QUB, Jun 2021 (remote) — U Wisconsin, Mar 2021 (remote)  
— NMSU, Mar 2020 — UC Boulder, Mar 2020 — Penn State, Oct 2019 — Rutgers, Mar 2019 —  
Cornell, Feb 2019 — STScI (JHU), Nov 2018 — Toronto, Oct 2018

### Haverford/Bryn Mawr Undergraduate Research:

Mick Mayer '25 — Indy Srijumnong '24 — Xingyun Yang '24 — Petra Mengistu '24 — Anubhav  
Sharma '23 (CS) — Hedy Goodman '23 (*Astronomical Observatories: Case Studies in Architecture  
& Design*) — Emmy Wisz BMC '23 (*Searching for Observational Traces of Spiral Arm Driven Radial  
Migration in Galaxies*) — Rachel Langgin BMC '23 — Miranda Kong BMC '22 (*Non-circular Bar  
Flow Linked to AGN in MaNGA Galaxies*) — James Garland '22 (*The Interplay of Tides, Bars, and  
Star Formation in Disk Galaxies*) — Autumn Winch BMC '22 — Karla Garcia '21 — Shufan Xia  
'21 (*Revisiting the Oort constants measurement from Gaia DR2 observations and simulations*) —  
Elizabeth Warrick BMC '21 (*A Comparison of Optical and Infrared Galaxy Zoo Morphologies*) —  
Nathan Wolthius '21 (*Understanding the Kinematics of Young Stars Just Outside the Galactic Bar*)  
— Shoaib Shamsi '21 (*Computational Methods for Analysing Star Formation in Spiral Galaxies*)  
— Kate Gold BMC '21 — Julian Goddy '21 — Sadie Kenyon-Dean '20 (*Light Pollution on the  
Haverford Campus*) — Emily Harrington BMC '20 (*Inspiring a Love of Stem in BVI Children*)  
— Rachel Eaglin BMC '22 — Reilly Milburn, '19 (*Using Small Telescopes to Followup Exoplanet  
Transits*) — Justin Otter '19

### Undergraduate Teaching at Haverford:

WRPR194: *Astronomical Questions* (Spr 2022, 2023),  
ASTR341: *Advanced Observational Astrophysics* (Spr 2019, Fall 2020, 2022),  
PHYS10X: *Introductory Physics Labs for 101, 102, 105 and/or 106* (Spr 2019, 2022),  
ASTR204: *Introduction to Astrophysics* (Fall 2018 - as ASTR205, 2019, 2021),  
ASTR352: *Extragalactic Data Science*, 0.5 Credit (Fall 2021),  
PHYS105: *Introduction to Physics I* (Fall 2019, 2020),  
ASTR101: *Astronomical Ideas* (Spr 2020),  
ASTR152: *First Year Seminar in Astrophysics* 0.5 credit, (Spr 2018, 2019),  
ASTR344: *Extragalactic Astronomy and Cosmology* (Spr 2018).

## TEACHING AND RESEARCH SUPERVISION

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## PhD Supervision:

Dr. Wenhao, UAlabama 2023, *A Multi-wavelength study of post-merger remnants: The relation between AGN, Mergers and Star formation quenching* (external supervisor as affiliate to the UAlabama graduate school)

Dr. Tim Lingard, Portsmouth 2021, *Human-Guided 4-Component Photometric Modelling of Spiral Galaxies*

Dr. Lucy Newnham, Portsmouth 2019, *Tracing Galaxy Evolution through Internal Structures*

Dr. Tom Melvin, Portsmouth 2016, *The Role of Bars in Disc Galaxy Evolution*

## PhD External Examination:

Daniel Maschmann (Observatoire Paris, Sept 2022) — Adam Watts (Univ. Western Australia, Nov 2021) — Charlotte Donohoe-Keyes (LJMU, Aug 2021) — Vaishali Parkash (Monash, July 2019) — Milena Pawlick (St Andrews, June 2016) — Ashley Hyde (Imperial College, Dec 2014)

**Faculty Director, Koshland Integrated Natural Sciences Center.** (2021- ) Faculty service role for leadership of endowed fund for science support. Overview of selection process for summer undergraduate research stipend awards.

**Member Haverford Academic Council** (2022-2024) Elected representative to faculty committee responsible for guidance to the Provost and President on tenure/promotion cases and faculty service assignments.

**Project Scientist for Galaxy Zoo** (2013 - 2021); PI (2021 - ). Leadership role in the (Royal Astronomical Society Group Achievement Award 2019 winning) science team behind the citizen science project.

**Spokesperson for Sloan Digital Sky Surveys-IV Collaboration** (July 2016-2022). Elected position. Leadership of scientific collaboration with over 200 members and 30 institutions worldwide. Member COINS (Committee on INclusiveness in SDSS).

**External Review Committees:** Macalauster College Physics Department (Oct 2019), WEAVE Project (Jan 2020).

**American Astronomical Society (AAS) Service:** Member (Co-chair from 2021) AAS Education Committee (2019-), Elected to AAS Nominations Committee (2020-2021). AAS representative on Phys/Astro SEACChange Board (2021-2022).

**Radio Astronomy Community Service:** Member CORF (National Academy of Sciences Committee on Radio Frequencies, July 2020- ), US Delegate to Working Party 7D (Scientific Research) of the International Telecommunications Union (ITU) Radio Regulations Meetings (2022, 2023). Green Bank Observatory Advisory Council (July 2020-), US National Radio Astronomy Observatory (NRAO) Users Committee (Chair 2023), 2007-2010, 2021-

**Professional Society Memberships:** Royal Astronomical Society (2001-), American Astronomical Society (2003-), International Astronomical Union (2012-)

**Co-author of:** *Asking Gender Questions*, Astronomy & Geophysics, Vol 55, Dec 2014. A study of the gender balance of astronomers asking questions at the UK National Astronomy Meeting.

**Member, Portsmouth Athena SWAN** (Gender equity in Academia) panel (2011-2017).

OTHER  
PROFESSIONAL  
ACTIVITIES

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## PUBLIC ENGAGEMENT AND OUTREACH

### **Popular Book/Article Writing:**

Author: “The Astronomers Library” (popular science book to be published - TBC late 2023)

Author: “The Neverending Survey”, Magazine review article about SDSS for Sky&Telescope Magazine, Jan 2023.

Co-Author: “30 Second Space Travel: 50 key ideas, inventions, and destinations that have inspired humanity toward the heavens” (popular science book, published 16th Mar 2021).

Co-Author: “30 Second Universe: 50 most significant ideas, theories, principles and events that sum up... everything” (popular science book, published 1st Oct 2019).

Chapter author: “Mary Somerville and the Mechanism of the Heavens”, in “More Passion for Science: Journeys into the Unknown” (an anthology of stories of women in STEM).

### **Media Outreach:**

Guest, *Science Goes to the Movies*, Feb 2022 (CUNY TV show).

Author and narrator of BBC Ideas short animated film “Scientopia”, released 2018.

TV-radio guest credits for astronomy outreach include Sky at Night (*Impacts*, June 2014; *Secrets of the Whirlpool Galaxy*, June 2016), BBC Radio 4 *The Today Show*, BBC Radio Solent, World Service, Radio 5 Live, ExpressFM.

Frequent contributor to micro-outreach through new media sources. I have more than 10k followers on social media (@KarenLMasters) where I tweet about astronomy/science.

### **Outreach/Public Engagement Leadership:**

Faculty Support for Public Observing nights at the Haverford College, Strawbridge Observatory (2018 - ) - online in 2020-2021

Outreach co-ordinator for ICG, Portsmouth, with responsibility for outreach budget, tracking impact of outreach. Line manager and mentor for ICG outreach officer, Dr. Jennifer Gupta (2011-2017).

Public Engagement and Outreach program for the UK National Astronomy Meeting, Portsmouth, Jun 24-27th 2014. Reached 1000+ people with a variety of astronomy outreach.

Director of Education and Public Engagement for SDSS (2013-2016).

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FULL PUBLICATION LIST *Summary: 177 publications in peer reviewed journals. Combined total of over 25,000 citations (from ADS; Astrophysics Data System), h-index=67.*

- REFEREED PUBLICATIONS (FIRST AUTHOR OR SIGNIFICANT INVOLVEMENT). UNDERGRADUATE\*
- 2023 50. *A comparison of the baryonic Tully-Fisher relation in MaNGA and IllustrisTNG.* Goddy\*, J. S., Stark, D. V., **Masters, K. L.**, Bundy, K., Drory, N., Law, D. R. 2023. MNRAS 520, 3895–3908.
49. *Mass and Color Dependence of the Hubble Spiral Sequence,* Mengistu\*, Petra ; **Masters, K. L.** 2023 RNAAS 7, 3.
48. *The H I content of red geyser galaxies.* Frank\*, E., Stark, David V., **Masters, K. L.** et al. 2023. MNRAS 519, 3312–3318.
- 2022 47. *Spirals in Galaxies,* Sellwood, J.A., & **Masters, K. L.** 2022, ARA&A 60.
46. *How Bar Fraction Depends on Baryon Fraction,* Yang\*, X & **Masters, K.** 2022, RNAAS 6, 206
45. *The Seventeenth Data Release of the Sloan Digital Sky Surveys: Complete Release of MaNGA, MaStar, and APOGEE-2 Data.* Abdurro'uf , et al, (SDSS-IV Collaboration in alphabetical order co-ordinated by **Karen L. Masters**) 2022. ApJSS 259.
44. *Quantifying the poor purity and completeness of morphological samples selected by galaxy colour.* Smethurst, R. J. **Masters, K. L.**, et al. 2022. MNRAS 510, 4126–4133.
43. *Testing Algorithms for Identifying Source Confusion in the H I-MaNGA Survey.* Shapiro\*, G., Stark, D. V., **Masters, K. L.**, Hess, K. & APERTIF team 2022. RNAAS 6 (erratum).
- 2021 42. *H I-MaNGA: tracing the physics of the neutral and ionized ISM with the second data release.* Stark, D. V. **Masters, Karen L** et al. 2021. MNRAS 503, 1345–1366.
41. *Galaxy zoo builder: Morphological dependence of spiral galaxy pitch angle* Lingard, T. K., **Masters, K. L.**, Krawczyk, C., et al. 2021, ApJ 504, 3364
40. *H I-MaNGA: tracing the physics of the neutral and ionized ISM with the second data release* Stark, David V.; **Masters, Karen L** et al. 2021 MNRAS 503, 1345
- 2020 39. *Galaxy Zoo Builder: Four Component Photometric decomposition of Spiral Galaxies Guided by Citizen Science.*, Lingard, T. K., **Masters, K. L.**, Krawczyk, C., et al. 2020, ApJ 903, 145
38. *The Sixteenth Data Release of the Sloan Digital Sky Surveys: First Release from the APOGEE-2 Southern Survey and Full Release of eBOSS Spectra.*, Ahumada, R., et al, (SDSS-IV Collaboration in alphabetical order co-ordinated by **Karen L. Masters**) 2020, ApJS 249, 1.
37. *The H I morphology and stellar properties of strongly barred galaxies: support for bar quenching in massive spirals.*, Newnham, L., **Masters, K** et al. 2020, MNRAS 492, 4697.
36. *Galactic conformity in both star formation and morphological properties.*, Otter\*, J. A., **Masters, K. L.**, Simmons, B., Lintott, C. J. 2020, MNRAS 492, 2722.
35. *L-band Calibration of the Green Bank Telescope from 2016-2019.*, Goddy\*, J., Stark, D. V., **Masters, K. L.** 2020, RNAAS, 4, 3.
- 2019 34. *HI-MaNGA: H I follow-up for the MaNGA survey,* **Karen L. Masters**, David Stark et al 2019, MNRAS 488, 3396
33. *2MTF - VII. 2MASS Tully-Fisher survey final data release: distances for 2,062 nearby spiral galaxies,* Hong, Stavely-Smith, **Masters** et al. 2019, MNRAS 487, 2061
32. *Galaxy Zoo: Unwinding the Winding Problem - Observations of Spiral Bulge Prominence and Arm Pitch Angles Suggest Local Spiral Galaxies are Winding,* **Masters** et al. 2019, MNRAS 487, 1808.
31. *The Fifteenth Data Release of the Sloan Digital Sky Surveys: First Release of MaNGA-derived Quantities, Data Visualization Tools, and Stellar Library* Aguago et al. (SDSS-IV Collaboration in alphabetical order co-ordinated by **Karen L. Masters**) 2019, ApJ 240, 23.

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- 2018 30. *Exploring the legacy of big stargazing events*, **Masters**, Gupta & Kedziora 2018, A&G 59, f6.
29. *SDSS-IV MaNGA: evidence of the importance of AGN feedback in low-mass galaxies*, Penny, **Masters** et al. 2018, MNRAS 476, 979
28. *The Fourteenth Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the Extended Baryon Oscillation Spectroscopic Survey and from the Second Phase of the Apache Point Observatory Galactic Evolution Experiment* Abolfathi et al. (SDSS-IV Collaboration in alphabetical order co-ordinated by **Karen L. Masters**) 2018, ApJS 235, 42.
27. *SDSS-IV MaNGA: the different quenching histories of fast and slow rotators* Smethurst, **Masters** et al. 2018 MNRAS 473, 2679
- 2016 26. *SDSS-IV MaNGA: faint quenched galaxies - I. Sample selection and evidence for environmental quenching* Samantha Penny, **Karen L. Masters** et al. 2016, MNRAS 462, 3955.
25. *Science Learning via Participation in Online Citizen Science*, **Karen Masters** et al. 2016, Journal of Science Communication, 15, 3.
- 2014 24. *Galaxy Zoo: CANDELS barred discs and bar fractions*, Brooke Simmons, Tom Melvin, Chris Lintott, **Karen L. Masters** et al. 2014, MNRAS 445, 3466
23. *2MTF III. HI 21cm observations of 1194 spiral galaxies with the Green Bank Telescope*, **Karen L. Masters** et al. 2014, MNRAS 443, 1044.
22. *Galaxy Zoo: an independent look at the evolution of the bar fraction over the last eight billion years from HST-COSMOS*, Tom Melvin, **Karen L. Masters** et al. 2014, MNRAS 438, 2882
- 2013 21. *Galaxy Zoo: Observing Secular Evolution through Bars*, Edmond Cheung, Lia Athanassoula, **Karen L. Masters** et al. 2013, ApJ, 779, 162
20. *Galaxy Zoo 2: detailed morphological classifications for 304,122 galaxies from the Sloan Digital Sky Survey*, Kyle W. Willett, Chris J. Lintott, Steven P. Bamford, **Karen L. Masters**, et al. 2013, MNRAS 435, 2835
19. *2MTF II: New Parkes 21cm observations of 303 southern galaxies*, Hong Tao, Lister Stavelly-Smith, **Karen L. Masters** et al., 2013, MNRAS 432, 1178
18. *The Different Star Formation Histories of Red and Blue Spirals and Ellipticals*, Rita Tojeiro, **Karen L. Masters** et al., 2013, MNRAS 432, 359
- 2012 17. *Galaxy Zoo and ALFALFA: Atomic Gas and the Regulation of Star Formation in Barred Disc Galaxies*, **Karen L. Masters** et al. 2012, MNRAS 424, 2180.
16. *The fraction of early-type galaxies in low redshift groups and clusters of galaxies*, Ben Hoyle, **Karen L. Masters**, Robert C. Nichol, Raul Jimenez & Steven P. Bamford, 2012, MNRAS 423, 3478.
15. *Galaxy Zoo: The Environmental Dependence of Bars and Bulges in Disc Galaxies*, Ramin Skibba, **Karen L. Masters**, Robert C. Nichol et al. 2012, MNRAS, 423, 1485
14. *The 2MASS Redshift Survey - Description and Data Release*, John P. Huchra, Lucas M. Macri, **Karen L. Masters**, et al., 2012, ApJS 199, 26
- 2011 13. *The Morphology of Galaxies in the Baryon Oscillation Spectroscopic Survey*, **Karen L. Masters**, Claudia Maraston, Robert C. Nichol, et al. 2011, MNRAS 418, 1055
12. *Galaxy Zoo: Bar Lengths in Local Disk Galaxies*, Ben Hoyle, **Karen L. Masters**, Robert C. Nichol, et al. 2011 MNRAS 415, 3627
11. *Galaxy Zoo: Bars in Disk Galaxies*, **Karen L. Masters**, Robert C. Nichol, Ben Hoyle, et al. 2011 MNRAS 411, 2026
- 2010 10. *Galaxy Zoo: Passive Red Spirals*, **Karen L. Masters**, Moein Mosleh, A. Kathy Romer, Robert C. Nichol, et al. 2010, MNRAS 405, 783
9. *The ACS Fornax Cluster Survey VII: Half Light Radii of Globular Clusters in Early-Type Galaxies*, **Karen L. Masters**, Andrés Jordán, et al. 2010, ApJ 715, 1419.

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- 2010 8. *Galaxy Zoo: Dust in Spiral Galaxies*  
**Karen L. Masters**, Robert C. Nichol, et al. 2010, MNRAS 404, 792
- 2008 7. *2MTF I: The Tully-Fisher Relation in the 2MASS J, H and K-bands*  
**Karen L. Masters**, C. M. Springob & J. P. Huchra. 2008, AJ 135, 1738 (48 ADS citations).
- 2007 6. *Geometric Tests of Cosmological Models: II. Calibration of Rotational Widths and the Tully-Fisher Relation*, A. Saintonge, **Karen L. Masters**, C. Marinoni, K. Spekkens, R. Giovanelli, & M.P. Haynes. 2008, A&A 478, 57
5. *SFI++ II: A New I-band Tully-Fisher Catalog, Derivation of Peculiar Velocities and Dataset Properties*, Christopher M. Springob, **Karen L. Masters**, M.P. Haynes, R. Giovanelli & C. Marinoni. 2007, ApJS 172, 599
- 2006 4. *SFI++ I: A New I-band Tully-Fisher Template, the Cluster Peculiar Velocity Disp. and  $H_0$*   
**Karen L. Masters**, C.M. Springob, M.P. Haynes & R. Giovanelli. 2006, ApJ 653, 861
- 2004 3. *The Impact of Distance Uncertainties on Local Luminosity and Mass Functions*  
**Karen L. Masters**, M.P. Haynes and R. Giovanelli, 2004, ApJ 607, L115
- 2003 2. *Internal Extinction in Spiral Galaxies in the Near-Infrared.*  
**Karen L. Masters**, R. Giovanelli, and M.P. Haynes, 2003, AJ 126, 158 (64 ADS citations).
- 2000 1. *The Elliptical Galaxy Formerly Known as the Local Group: merging the globular cluster systems*, D.A. Forbes, **Karen L. Masters**, D. Minniti, and P. Barnby, 2000, A&A 358, 471

OTHER  
REFEREED  
PUBLICATIONS

- 2023 127. *Post-starburst properties of post-merger galaxies.* Li, W. and 12 colleagues including **Karen L. Masters** 2023. MNRAS 523, 720–738.
126. *The most luminous, merger-free AGNs show only marginal correlation with bar presence.* Garland, I. L. and 15 colleagues including **Karen L. Masters** 2023. MNRAS 522, 211–225.
125. *Galaxy Zoo: kinematics of strongly and weakly barred galaxies.* Géron, T. and 10 colleagues including **Karen L. Masters** 2023. MNRAS 521, 1775–1793.
124. *Harnessing the Hubble Space Telescope Archives: A Catalog of 21,926 Interacting Galaxies.* O’Ryan, D. and 15 colleagues including **Karen L. Masters** 2023. ApJ 948.
123. *A Multiwavelength Study of Active Galactic Nuclei in Post-merger Remnants.* Li, W. and 11 colleagues 2023. ApJ 944.
- 2022 121. *Resolved Molecular Gas Observations of MaNGA Post-starbursts Reveal a Tumultuous Past.* Otter, J. A. and 26 colleagues including **Karen L. Masters** 2022. ApJ 941.
120. *Galaxy And Mass Assembly: Galaxy Zoo spiral arms and star formation rates.* Porter-Temple, R. and 8 colleagues including **Karen L. Masters** 2022. MNRAS 515, 3875–3882.
119. *The Velocity Map Asymmetry of Ionized Gas in MaNGA. I. The Catalog and General Properties.* Feng, S., Shen, S.-Y., Yuan, F.-T., Dai, Y. S., **Masters, K. L.** 2022. ApJSS 262.
118. *The Milky Way tomography with APOGEE: intrinsic density distribution and structure of mono-abundance populations.* Lian, J. et al. including **Karen L. Masters** 2022. MNRAS 513, 4130–4151.
117. *Practical galaxy morphology tools from deep supervised representation learning.* Walmsley, M. et al. including **Karen L. Masters** 2022. MNRAS 513, 1581–1599.
116. *Photometric Signature of Ultraharmonic Resonances in Barred Galaxies.* Krishnarao, D. et al. including **Karen L. Masters** 2022. ApJ 929.
115. *Observations of the initial formation and evolution of spiral galaxies at  $1 < z < 3$  in the CANDELS fields* Margalef-Bentabol, B. et al. including **Karen L. Masters** 2022. MNRAS 511, 1502–1517.
114. *SDSS-IV MaNGA: Understanding Ionized Gas Turbulence Using Integral Field Spectroscopy of 4500 Star-forming Disk Galaxies.* Law, D. R. et al. including **Karen L. Masters** 2022. ApJ 928.

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- (CONT.)
- 2022 113. *Galaxy Zoo DECaLS: Detailed visual morphology measurements from volunteers and deep learning for 314 000 galaxies.* Walmsley, M. et al. including **Karen L. Masters** 2022. MNRAS 509, 3966–3988.
- 2021 112. *Constraining the Milky Way’s ultraviolet-to-infrared SED with Gaussian process regression.* Fielder, C. E. et al. including **Karen L. Masters** 2021. MNRAS 508, 4459–4483.
111. *Radio Morphology of Red Geysers.* Roy, N. et al. including **Karen L. Masters** 2021. AJ 922.
110. *Galaxy zoo: stronger bars facilitate quenching in star-forming galaxies.* Géron, T. et al. including **Karen L. Masters** 2021. MNRAS 507, 4389–4408.
109. *Kiloparsec-scale AGN outflows and feedback in merger-free galaxies.* Smethurst, R. J. et al. including **Karen L. Masters** 2021. MNRAS 507, 3985–3997.
108. *Completed SDSS-IV extended Baryon Oscillation Spectroscopic Survey: Cosmological implications from two decades of spectroscopic surveys at the Apache Point Observatory* Alam et al. (alphabetical including KLM) 2021, RhRvD 103, 3533.
107. *Buckling Bars in Nearly Face-on Galaxies Observed with MaNGA* Xiang et al. including **Karen L. Masters** 2021, ApJ 909 125
106. *SDSS-IV/MaNGA: Can Impulsive Gaseous Inflows Explain Steep Oxygen Abundance Profiles and Anomalously Low-Metallicity Regions?* Pace, Zach et al. (including **Karen L. Masters**) 2021 ApJ 908, 165
- 2020 105. *SDSS-IV MaNGA: the indispensable role of bars in enhancing the central star formation of low-z galaxies* Lin, Lin et al. (including **Karen L. Masters**) 2020 MNRAS 499, 1406
104. *SDSS-IV MaNGA: The link between bars and the early cessation of star formation in spiral galaxies* Fraser-McKelvie, A, et al. (including **Karen L. Masters**) 2020 MNRAS 499, 1116
103. *Are the Milky Way and Andromeda unusual? A comparison with Milky Way and Andromeda analogues* Boardman, N et al. (including **Karen L. Masters**) 2020 MNRAS 498, 4943
102. *ALMaQUEST. IV. The ALMA-MaNGA QUenching and STar Formation (ALMaQUEST) Survey* Lin, Liwhai et al. (including **Karen L. Masters**) 2020 ApJ 903, 145
101. *The Effect of Bars on the Ionized ISM: Optical Emission Lines from Milky Way Analogs* Krishnarao, D. et al. including **Karen L. Masters** 2020, ApJ 898, 116
100. *SDSS-IV MaNGA: Spatially resolved star formation in barred galaxies.* Fraser-McKelvie, A., et al. including **Karen L. Masters** 2020, MNRAS, 495, 4158.
99. *SDSS-IV MaNGA: spatially resolved dust attenuation in spiral galaxies.*, Greener, M. J., et al. including **Karen L. Masters** 2020. MNRAS 495, 2305.
98. *SDSS-IV MaNGA: the role of bars in central star formation enhancements.*, Lin, L., et al. including **Karen L. Masters** 2020. MNRAS submitted (eprints arXiv:2005.09853.)
97. *Outflows in star-forming galaxies: Stacking analyses of resolved winds and the relation to their hosts’ properties.*, Roberts-Borsani, G. W., Saintonge, A., **Masters, K. L.**, Stark, D. V. 2020, MNRAS 493, 3081.
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