

Karen L. Masters

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 Bluesky: @KarenLMasters
PROFESSIONAL APPOINTMENTS	Physics & Astronomy Department, Haverford College, PA, USA Professor of Astronomy and Physics (Chair 2022-) Associate Professor of Astronomy and Physics	Jul 2021 - Jan 2018 - 2021
	Institute of Cosmology and Gravitation, University of Portsmouth, UK Reader in Astronomy and Astrophysics (equiv. Associate Prof.) . 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) . Harvard-SAO Center for Astrophysics, Cambridge, MA, USA Smithsonian Visiting Scientist (with Andrés Jordán) Harvard Postdoctoral Research Fellow (with John Huchra) . (0.2 FTE to Sept 2019) 2015-2017 2014-2015 2012-2014 2010-2012 2008-2010 (maternity leave Feb-Sep 2010)	2015-2017 2014-2015 2012-2014 2010-2012 2008-2010 (maternity leave Mar-Jun 2007)
EDUCATION	Ph.D in Astronomy, Cornell University , Ithaca, NY, USA Thesis: <i>Galaxy flows in and around the Local Supercluster</i> , (Advisor: Martha Haynes) M.S. in Astronomy Cornell University , Ithaca, NY, USA B.A. in Physics (1st Class, Top of B.A. class), Oxford University , Oxford, UK	August 2005 January 2003 June 2000
SELECTED HONOURS AND AWARDS	<ul style="list-style-type: none">• Royal Astronomical Society Group Achievement Award for Galaxy Zoo Team (June 2019)• Elected SDSS-IV Spokesperson (July 2016); re-elected (July 2019)• Named SDSS-IV “Architect” (2014).• Winner, Women of the Future: Science 2014 (for “women who are shaping Britain’s future”).• One of the “100 Women” of 2014, by the BBC.	
SELECTED RECENT PUBLICATIONS *UNDERGRAD CO-AUTHOR	<ul style="list-style-type: none">• <i>Using HI observations of low-mass galaxies to test ultra-light axion dark matter</i> Garland*, James T.; Masters, Karen L.; Grin, Daniel. MNRAS submitted• <i>H I-rich but low star formation galaxies in MaNGA: physical properties and comparison to control samples</i>, Sharma*, Anubhav; Masters, Karen L.; Stark, David V. and 4 more. 2023, MNRAS 526, 1573• <i>Mass and Color Dependence of the Hubble Spiral Sequence</i>, Mengistu*, Petra ; Masters, K. L. 2023 RNAAS 7, 3.• <i>Spirals in Galaxies</i>, Sellwood, J.A., & Masters, K. L. 2022, ARA&A 60.• <i>How Bar Fraction Depends on Baryon Fraction</i>, Yang*, X & Masters, K. 2022, RNAAS 6, 206• <i>Galaxy Zoo: 3D - crowdsourced bar, spiral, and foreground star masks for MaNGA target galaxies</i>, Masters, K. L., Krawczyk, C., Shamsi*, S., et al. 2021, MNRAS, 507, 3923.• <i>HI-MaNGA: H I follow-up for the MaNGA survey</i>, Karen L. Masters et al 2019, MNRAS 488, 3396	
	<i>Summary: 188 publications in peer reviewed journals. Combined total of almost 29,000 citations (from ADS; Astrophysics Data System), h-index=70.</i>	

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SELECTED

RESEARCH

TALKS/SEMINARS

Selected Conference Talks:

“Galactic Bars: Driving and Decoding Galaxy evolution” July 3-7th 2023, Granada, Spain — Plenary Review: “Wide Field Spectroscopy vs. Galaxy Formation”, Mar 2023 — Invited: 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 — 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 — 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):

Drexel Physics colloquium, Mar 2024 — **Institute for Advanced Study/Princeton University Joint Astrophysics Colloquium, Oct 2023** — 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

TEACHING

Undergraduate Teaching at Haverford:

PHYS399: *Senior Seminar* (Spr 2024; 35 seniors)
ASTR352: *Extragalactic Data Science*, 0.5 Credit (Fall 2021, Spr 2024; 7 students),
PHYS10X: *Introductory Physics Labs for 101, 102, 105 and/or 106* (Spr 2019, 2022, 2024),
PHYS303: *Statistical Physics* (Fall 2023; 34 students),
WRPR194: *Astronomical Questions* (Spr 2022, 2023),
ASTR341: *Advanced Observational Astrophysics* (Spr 2019, Fall 2020, 2022),
ASTR204: *Introduction to Astrophysics* (Fall 2019, 2021),
PHYS105: *Introduction to Physics I* (Fall 2019, 2020),
ASTR101: *Astronomical Ideas* (Spr 2020),
ASTR205: *Introduction to Astrophysics I* (Fall 2018),
ASTR152: *First Year Seminar in Astrophysics* 0.5 credit, (Spr 2018, 2019),
ASTR344: *Extragalactic Astronomy and Cosmology* (Spr 2018).

Undergraduate Teaching at Portsmouth:

Mathematical Physics (2011, 2014);
Space Science and Applications of Physics (2015, 2016, 2017);
Computational Physics (2016, 2017)

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UNDERGRADUATE RESEARCH SUPERVISION

Haverford/Bryn Mawr Undergraduate Research:

32. Graca Nasrallah '27 (summer)
31. Partrick Wang '27 (summer)
30. Nora Salem '26 Paper: *Finding Passive Galaxies in HI-MaNGA: The Impact of Star-Formation Rate Indicator*
29. Margaret Wang '26 (summer and semester research)
28. Masha Killibarda '26 (summer and semester research)
27. Tessa Pearlstein '25 (summer)
26. Narisara (Mick) Mayer '25 (summer and semester research)
25. Will Flanders '24 Thesis (w. Dan Grin): *Using HI Observations to Test Ultra-Light Axion Dark Matter*
24. Ben Bergerson '24 Thesis: *Classification of Flocculent and Grand Design Spiral Galaxies using Supervised Machine Learning*
23. Indy Srijumnong '24 Thesis: *Wavelength and Sensitivity Calibration of Slitless Spectrograph on the Strawbridge Observatory 16" Telescope*
23. Emma Martignoni '24 Thesis: *Investigating the Impact of Galactic Environment and Mass on Radial Trends in Star Formation Rate*
22. Sophia Lanava BMC '24 Thesis: *Examining the HI Content of Spiral Galaxies with Ionized Gas Outflows*
21. Petra Mengistu '24 Paper: *Mass and Color Dependence of the Hubble Spiral Sequence, Thesis: The Role of Galactic Bars on Regulating Star Formation*
20. Xingyun Yang '24 Paper: *How Bar Fraction Depends on Baryon Fraction*
19. Anubhav Sharma '23 (CS) Paper: *H I-rich but low star formation galaxies in MaNGA: physical properties and comparison to control samples*
18. Hedy Goodman '23 Thesis: *Astronomical Observatories: Case Studies in Architecture & Design*
17. Emmy Wisz BMC '23 Thesis: *Searching for Observational Traces of Spiral Arm Driven Radial Migration in Galaxies*
16. Rachel Langgin BMC '23 (summer and semester research), off campus thesis.
15. Miranda Kong BMC '22 Thesis: *Non-circular Bar Flow Linked to AGN in MaNGA Galaxies*
14. James Garland '22 Thesis: *The Interplay of Tides, Bars, and Star Formation in Disk Galaxies.* Paper (w Dan Grin): *Using HI observations of low-mass galaxies to test ultra-light axion dark matter*
13. Autumn Winch BMC '22 (summer and semester research), off campus thesis.
12. Shufan Xia '21 Thesis (off campus w Zhao-Yu Li): *Revisiting the Oort constants measurement from Gaia DR2 observations and simulations*
11. Elizabeth Warrick BMC '21 Thesis: *A Comparison of Optical and Infrared Galaxy Zoo Morphologies*
10. Nathan Wolthius '21 Thesis (off campus w Victor Debattista): *The Kinematics of Young Stars Just Outside the Galactic Bar*
9. Shoaib Shamsi '21 Thesis: *Computational Methods for Analysing Star Formation in Spiral Galaxies.*
8. Kate Gold BMC '21 (summer and semester research)
7. Julian Goddy '21 Papers: *L-band Calibration of the Green Bank Telescope from 2016–2019, and A comparison of the baryonic Tully–Fisher relation in MaNGA and IllustrisTNG.* Thesis with Dave Stark.
6. Karla Garcia '21 (summer research)
5. Sadie Kenyon-Dean '20. Thesis: *Light Pollution on the Haverford Campus*
4. Emily Harrington BMC '20. Thesis: *Inspiring a Love of Stem in BVI Children*
3. Rachel Eaglin BMC '22 (research for credit)
2. Reilly Milburn, '19. Thesis: *Using Small Telescopes to Followup Exoplanet Transits*
1. Justin Otter '19. Paper: *Galactic Conformity in both Star-formation and Morphological Properties*

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PHD RESEARCH SUPERVISION

PhD Supervision:

Dr. Kavya Mundunken UAlabama 2024, *Understanding Galaxy Evolution in the Local Universe: Investigating Barred Galaxies and Advancing Automated Galaxy Morphology Techniques* (external supervisor as affiliate to the UAlabama graduate school)

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)

OTHER PROFESSIONAL ACTIVITIES

Faculty Director, Koshland Integrated Natural Sciences Center. (July 2021-2024) Faculty service role for leadership of endowed fund for science support. Overview of selection process for summer undergraduate research stipend awards. Hiring and mentoring of staff support for scientific computing, materials purchase and budget, machine shop.

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.

PI (for Galaxy Zoo 2021 -); Project Scientist (2013 - 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: Macalaster College Physics Department (Oct 2019), WEAVE Project (Jan 2020).

American Astronomical Society (AAS) Service: Member (Co-chair from 2021) AAS Education Committee (2019-2024), 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).

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PUBLIC
ENGAGEMENT AND
OUTREACH

Popular Book/Article Writing:

Author: “The Astronomers Library” (popular science book published April 2024)

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: 188 publications in peer reviewed journals. Combined total of almost 29,000 citations (from ADS; Astrophysics Data System), h-index=70.*

- REFEREED PUBLICATIONS (FIRST AUTHOR OR SIGNIFICANT INVOLVEMENT). UNDERGRADUATE*
- 2024 53 *Using HI observations of low-mass galaxies to test ultra-light axion dark matter* Garland*, James T.; **Masters, Karen L.**; Grin, Daniel. MNRAS submitted
- 52 *SDSS-IV from 2014 to 2016: A Detailed Demographic Comparison over Three Years* Jones, Amy M.; Beaton, Rachael L.; Cherinka, Brian A.; **Masters, Karen L.** and 23 more. 2024, PASP 135.
- 2023 51. *H I-rich but low star formation galaxies in MaNGA: physical properties and comparison to control samples*, Sharma*, Anubhav; **Masters, Karen L.**; Stark, David V. and 4 more. 2023, MNRAS 526, 1573
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.
- 2020 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

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- 2019 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* Aguayo et al. (SDSS-IV Collaboration in alphabetical order co-ordinated by **Karen L. Masters**) 2019, ApJ 240, 23.
- 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 Stavely-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

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- 2011 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.
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. Barmby, 2000, A&A 358, 471

OTHER
REFEREED
PUBLICATIONS

- 2024 130. *Galaxy zoo DESI: large-scale bars as a secular mechanism for triggering AGN* Garland, I. L. and 15 colleagues including **Masters, K. L.** 2024 MNRAS
- 2023 129. *Galaxy Zoo DESI: Detailed morphology measurements for 8.7M galaxies in the DESI Legacy Imaging Surveys* Walmsley, Mike; Géron, Tobias; Kruk, Sandor; Scaife, Anna M. M.; Lintott, Chris; **Masters, Karen L.**; Dawson, James M.; Dickinson, Hugh; Fortson, Lucy; Garland, Izzy L.; Mantha, Kameswara; O’Ryan, David; Popp, Jürgen; Simmons, Brooke; Baeten, Elisabeth M.; Macmillan, Christine. 2023 MNRAS 526, 476
128. *The Eighteenth Data Release of the Sloan Digital Sky Surveys: Targeting and First Spectra from SDSS-V* Almeida, Andrés et al. (153 authors in alphabetical order including **Masters, K. L.**), 2023, ApJS 267, 44
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.

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- 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.
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.
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