

Karen L. Masters

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RESEARCH APPOINTMENTS **Institute of Cosmology and Gravitation, University of Portsmouth, UK**
Reader in Astronomy and Astrophysics (equiv. Associate Prof.) **Sept 2015 - 2014-2015**
Senior Lecturer (equiv. Assistant Prof.) **2012-2014**
University Research Fellow **2010-2012**
Leverhulme Early Career Research Fellow (with Bob Nichol) **2008-2010**
The 2008 Peter and Patricia Gruber Foundation IAU Fellow (with Bob Nichol) **2008-2010**
. (maternity leave Feb-Sep 2010)

Harvard-SAO Center for Astrophysics, Cambridge, MA, USA
Smithsonian Visiting Scientist (with Andrés Jordán) **July/Aug 2008**
Harvard Postdoctoral Research Fellow (with John Huchra) **Sept 2005- June 2008**
. (maternity leave Mar-Jun 2007)

EDUCATION Ph.D in Astronomy, **Cornell University**, Ithaca, NY, USA **August 2005**
Thesis: *Galaxy flows in and around the Local Supercluster*, (Advisor: Martha Haynes)
M.S. in Astronomy **Cornell University**, Ithaca, NY, USA **January 2003**
B.A. in Physics (1st Class, Top of B.A. class), **Oxford University**, Oxford, UK **June 2000**

RECENT HONOURS AND AWARDS

- Elected SDSS-IV Spokeperson (July 2016)
- 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.
- Early Career Fellowship from The Leverhulme Trust (2010-2012; 50% salary support plus £6k/yr)
- Gave one of the four “Invited Discourses” (evening plenary talks) at the Beijing 2012 General Assembly of the International Astronomical Union.
- Winner, 2008 International Astronomical Union Fellowship (from Gruber Foundation, \$50,000)

RECENT FIRST AUTHOR PUBLICATIONS

1. *Science Learning via Participation in Online Citizen Science*, **Karen Masters** et al. 2016, Journal of Science Communication, 15, 3.
2. *2MTF III. HI 21cm observations of 1194 spiral galaxies with the Green Bank Telescope*, **Karen L. Masters** et al. 2014, MNRAS 443, 1044.
3. *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 (43 citations)
4. *The Morphology of Galaxies in the Baryon Oscillation Spectroscopic Survey*, **Karen L. Masters** et al., 2011, MNRAS 418, 1055 (46 ADS citations).
5. *Galaxy Zoo: Bars in Disk Galaxies* **Karen L. Masters** et al., 2011 MNRAS 411, 2026 (89 ADS citations).
6. *Galaxy Zoo: Passive Red Spirals* **Karen L. Masters** et al., 2010, MNRAS 405, 783 (113 ADS citations).

Summary: **79 publications in peer reviewed journals (including 13 first author, 10 second author). Combined total of over 7000 citations (from ADS; Astrophysics Data System), h-index=36.**

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SELECTED

RESEARCH

TALKS/SEMINARS

Invited Conference Talks:

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.

Collquia/Seminars:

Oxford, Oct 2016 — Southampton, May 2016 — AMNH, NY, Mar 2016 — Kent, Feb 2016 — UCL, Oct 2015 — Adler Planetarium, Chicago, Mar 2015, Leicester, Jan 2015 — Caltech, Aug 2014 — Imperial College, London, May 2014 — Geneva Observator, Mar 2014 — Academia Sinica, Taiwan, Mar 2014 — Arcetri Observatory, Florence, Feb 2014 — Exeter, Oct 2013 — UCLan, Mar 2012 — Sussex, Jan 2013 — Surrey, Dec 2012 — UCL, Oct 2012 — Cambridge, Nov 2011.

OTHER ACTIVITIES AND SKILLS

Spokesperson for SDSS-IV Collaboration (July 2016-2019). Elected position at leader of the scientific collaboration which has over 200 members at more than 30 institutions worldwide.

Project Scientist for Galaxy Zoo - leading professional science team behind the citizen science project.

PhD Supervisor for: Tim Lingard (2016-), Lucy Newnham (2015-), Dr. Tom Melvin (PhD, 2016).

Undergraduate Teaching: *Mathematical Physics* (2011, 2014); *Space Science and Applications of Physics* (2015, 2016); *Computational Physics* (2016)

Summer Student Supervision as part of The Ogden Trust Summer Research Scholarships, SEPnet (South East Physics Network) Summer Placement Scheme, SDSS-IV REU Scheme.

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).

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

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.

Frequent contributor to micro-outreach through new media sources. I have more than 4k followers on Twitter (@KarenLMasters) where I tweet about astronomy/science.

Invited contributor of: Phys. Rev. Lett. Viewpoint: *Testing Gravity in Gas Rich Galaxies*, **Karen L. Masters** & Kristine Spekkens, 2011

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 of University of Portsmouth Athena SWAN panel, and Portsmouth Physics Project Juno/Athena SWAN Panels. Started mentoring program for Portsmouth post-16 girls studying physics.

Co-I of EPSRC funded “VOLCROWE”, studying the economics and sociology of online volunteers. Co-I of Innovate:UK funded “Crowdsourcing Landscape Change” knowledge transfer project.

Member: Royal Astronomical Society, American Astronomical Society, International Astronomical Union.