Professor Catherine Heymans

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Nationality: British

Research Career

2021-date **Astronomer Royal for Scotland**.

2019-date **Director of the German Centre for Cosmological Lensing**, Ruhr University Bochum.

2016-date **Professor of Observational Cosmology,** University of Edinburgh, UK.

2015-date **European Research Council Consolidator** Grant PI, University of Edinburgh.

2013-2016 Reader, Institute for Astronomy, University of Edinburgh, UK.

2011-2013 Lecturer, University of Edinburgh, UK, including 6 months maternity leave.

2010-2015 **European Research Council Starting** Grant PI, University of Edinburgh.

2008-2011 Senior Advanced Fellowship, University of Edinburgh, including 6 months maternity leave

2007-2008 Marie Curie Outgoing International Fellowship, University of British Columbia, Canada, and the Institut d'Astrophysique de Paris, France.

2005-2007 CITA National Fellowship, Canada, including 6 months maternity leave.

2003-2005 Postdoctoral fellowship, Max-Planck-Institut fur Astronomie, Germany.

2000-2003 **Astrophysics DPhil**, University of Oxford, UK.
Weak Gravitational Lensing and Intrinsic Alignments.

1996-2000 Masters in Physics with 1st class honours in Astrophysics. University of Edinburgh, UK.

Professional Skills

- Co-lead of the European Southern Observatory Kilo Degree Survey (KiDS).
- Co-PI of the CFHTLenS survey; PI of the Shear TEsting Programme (STEP).
- Royal Society's International Exchanges Panel (2020 - 2023), *STFC* Peer Projects Review Panel (2015, core member 2016 & 2017), STFC Radio Astronomy Review Panel (2018), *STFC* Rutherford Fellowship selection panel (2015), Selection committee for STFC postgraduate studentships (2012-2015, 2018-date).
- Swedish Research Council, research project and starting grant panel (2021)
- *Chair of the STFC UK Dark Matter Strategic Review 2019*
- Royal Society of Edinburgh: Robert Cormack Bequest Committee (2016-2020), the Physics and Astronomy Sectional Committee (2018-2021), *Young Academy of Scotland* (2011-2016)
- *European Southern Observatory* Observing Programmes Committee; Panel Chair (P99-101 and P107) and Panel Member (P87-88).
- *Royal Society Open Science Journal:* Member of the Editorial Board (2017-2021)
- *LSST:UK Executive Group* (2020-2023), *LSST:DESC Software Review Policy Committee* (2020) *LSST:DESC Advisory Board* (2021-2024)
- *NSF/DoE* LSST Core Data Processing Software Review Panel 2013. *NASA* Euclid 2010 Review Panel. *Hubble Space Telescope* Extragalatic Panel Member, Cycle 17 Time Allocation Committee.
- *Science Organising Committees:* "CosmoGold", Paris, 2019, "Testing Gravity", Aspen, US, 2016. "Diving in the Dark", Cairns Australia 2016. Lorentz Workshop; "Extracting Information from Weak Lensing" 2015. GREAT3 workshop, Edinburgh 2014, SUPA/Cormack Astronomy Meeting 2012, UK National Astronomy Meeting 2010 Parallel Session Organiser: The Dark Art of Dark Matter.
- Organiser and Instigator of the "Inspirational Astronomers at the Institute for Astronomy" seminar series on alternative career paths in Astronomy, (2010-2011)
- Referee of articles for ApJ, MNRAS, A&A, the New Journal of Physics, Astroparticle Physics, PASP.

Prizes and Awards

2019	Einstein Dahlem Lecture, Freie Universität Berlin
2018	Max Planck Humboldt Research Award. Awarded to a single recipient in the natural and engineering sciences every three years, recognizing outstanding future potential.
2018	Fellowship of the Royal Society of Edinburgh, the National Academy of Scotland
2017	George Darwin Lectureship, Royal Astronomical Society
2015	World Cultural Council, Special Recognition Award
2013	Chancellors Rising Star Award, University of Edinburgh
2010	Outstanding Young Astronomer Prize, Joint European National Astronomy Meeting 2010
2006	The Ernst Patzer Prize for outstanding research, Max-Planck-Institut fur Astronomie.
2003	UK Science Communicator's Award (PPARC and ESPRC).
2000	Emerson Memorial Prize for the most outstanding Masters student in Astrophysics.
1998-1999	Anglo-Australian Observatory summer research scholarship and a Cormack research scholarship from the Royal Society of Edinburgh.

Research Funding

2019-2024	PI award of from the Max Planck Society, the Alexander von Humboldt Foundation and the German Federal Ministry of Education and Research : 1.6M£.
2019	Co-PI of Deutsche Forschungsgemeinschaft (DFG) International Scientific Event: £24k.
2015-2020	PI award of a European Research Council Consolidators Grant : 2M£.
2015-2017	Co-PI of Marie Curie Incoming Fellowship funding: £130k
2014	Co-I of Lorentz Center funding for a weak lensing workshop: £10k
2012	Co-I of UK Space Agency Euclid Science Ground Segment Grant: 2M£
2012	Co-I of the Institute for Astronomy's STFC consolidated grant that supports Extragalactic Astronomy and Cosmology PDRAs at the institute: 3.5M£
2011	PI award of a Royal Society International Travel Grant: £3,800.
2010-2015	PI award of a European Research Council Starting Investigators Grant: 1M£.
2010-2011	PI award of a Roberts Fund grant: £3,000.
2009-2010	PI award of a Royal Society Research Grant: £15,000
2008	Co-I of the Institute for Astronomy's STFC rolling grant that supports Extragalactic Astronomy and Cosmology PDRAs at the institute: 3.5M£
2008	Co-I of GREAT08 Pascal Challenge Grant: £3,000
2007-2009	PI award of a three-year Marie Curie fellowship: £200k
2005-2008	One of two EU Co-Is on the ADEPT NASA JDEM program, funded for the design and development stage of the mission concept: 1M£

Academic Publications

I have authored a total of **190 refereed papers** in international peer-reviewed journals with a **combined total of over 19,000 citations** (average ~100 citations per paper). 62 of these papers are "very well known" with over 100 citations in total. I am the first author of 12 journal papers, 8 of which are "very well known" with over 100 citations in total. **I have a Hirsch index of 73.** These statistics are taken from the SAO/NASA Astrophysics Data System. My full bibliography can be found at the end of this document.

Invited Conference, Seminars and Advanced Schools.

Since 2007 I have taught at 6 Graduate Schools, given 15 invited plenary talks and 5 reviews at international conferences. I have presented colloquia at Universities in the UK (28), EU (7), and the US, Canada and Japan (10). A full list of events can be found at the end of this document.

Science Communication:

I am a regular contributor to BBC radio and television, providing expert comment for a range of different physics and space stories. I am have also made significant contributions to the public understanding of Science with a focus on widening participation has led to astronomy featuring at music and philosophy festivals, stand-up comedy, and art events at the Tate Modern and the UK 2017 World Expo. A full list of events can be found at the end of this document.

***Popular science books**:*

- *The Dark Universe,* Heymans, 2017, Institute of Physics Publishing, ISBN: 978-0-7503-1373-5
- *Scotland in Space, Shoreline of Infinity Publishing.*

***Popular science* magazine articles**:

- *The Dark Side,* Heymans, 2017, PHOENIX Fashion, Autumn Space Issue.
- *Sky Survey Casts Light on the Dark Universe,* Heymans, 2015, Physics, Vol 8, id.74.
- *Seeing the invisible,* Heymans, 2014, Physics World, Vol 27, Issue 07.
- *What is the nature of the dark universe,* Heymans, 2013, Physics World, Vol 26, Issue 10.

Teaching Experience

2019-2021	Graduate Co-ordinator for the Institute for Astronomy
2014-date	Introductory Astrophysics: Course Organiser, developer and primary lecturer
2014-date	AstroTech MOOC: course developer and lecturer over 40,000 online students.
2011-2014	Institute of Astronomy Co-ordinator for the Royal Observatory Open Doors Day.
2011	MPhys Advanced Cosmology lectures for SUPA.
2010-date	PhD viva external examiner, UAB Barcelona, Universite Paris Diderot, St Andrews University, Université de Provence, Universiteit Leiden, University of Manchester, University of Birmingham, University College London.
2008-2014	Stellar Evolution and Cosmology: Introductory Astronomy
2008-2011	Research Methods in Physics teaching team, co-designed to develop research skills.
2005-date	Postgraduate and undergraduate supervision of research projects:
	University of Edinburgh PhD: Q, Xia (2021), V. Demchenko (2019), B. Giblin (2019), A. Amon (2018), M. Asgari (2015), E. Eardley (2015), L. Koen (2014), C. Duncan (2014), E. Grocutt (2012),
	University of Edinburgh MPhys/Msc: F. Davidson (2021), R. Seeburger, R. (2021), I. Friswell, (2020), A. Semenaite (2019), I. Friswell (2017), V. Demchenko (2016), N. Robertson (2015), D. McKean (2013), E. Allthorpe Mullis (2009),
	Summer Research Projects: S. Brown (Cormack Undergraduate Vacation Scholarship 2010) , N. Robertson (School of Physics and Astronomy Research Bursary 2013)
	University of British Columbia: J. Benjamin (Masters 2008), M. Milkeraitis (PhD 2010), S. Vafaei (PhD 2011), W. Ngan (Undergraduate 2008)
2005-2008	Part-time postdoctoral teaching fellow, University of British Columbia

Observational Experience

- Co-lead of the ESO Public Kilo-Degree survey on VST and VISTA.
- Co-I allocation of 53 nights on the AAT over three semesters (for the 2dFLenS survey).
- Co-PI allocation of 48 nights on the INT over four semesters (MeNeACS clusters).
- Co-I in the analysis of over 1000 orbits of HST data (GEMS, STAGES, COSMOS and ACSPAR).
- Fifteen nights observing at the Isaac Newton Telescope, INT, using the Wide Field Camera.
- Seven nights observing at the Anglo Australian Telescope, AAT, for 2dFGRS.

Full List: Science Communication and Public Engagement

2021 *"The Dark Side of the Universe":* Public talk for the Astronomical Society of Edinburgh and Sydney Skywatchers.

"Planck and Consciousness Puzzle", "Alive in the Universe" and *"Stargazing live with the Astronomer Royal for Scotland"*, at *How The Light Gets In* festival of Philosophy and Art hosted by the Institute of Art and Ideas.

2020 *"The Dark Side of the Universe":* Public talk for the Royal Scottish Society of Arts and Chaos, the University of Bristol Physics Society.

2019 *Brainwaves:* BBC Radio Scotland 30 min show with radio host Pennie Latin - exploring the science behind the everyday.

Seeing the Invisible: Deutsch-Amerikanisches Institut International Science Festival.

"After the God Particle", and *"The Universe that wasn't there"*, at *How The Light Gets In* festival of Philosophy and Art hosted by the Institute of Art and Ideas.

2018 Solo-talk and panel debates at the *How The Light Gets In* festival of Philosophy and Art hosted by the Institute of Art and Ideas.

The Dark Side of the Universe: New Scientist Live, London ExCel, Cosmos Stage and the Speakeasy stage.

Searching for a new cosmic view: TED-x Glasgow, audience of 3000.

STV Live at Five: "day in the life" piece and chat show guest

Mysteries of the Multiverse: Philosophy for our Times, Institute of Art and Ideas, 22,000 views

2017 *"What particles remain to be discovered",* joining Brian Cox to discuss Dark Matter on the Infinite Monkey Cage show on Radio 4.

Scientific Advisor for the UK Pavilion at the World Expo in Astana, Kazakhstan.

"You don't matter", Edinburgh Fringe Festival comedy show on the Multiverse as part of the Cabaret of Dangerous Ideas.

"Observing the Dark Side of the Universe" . Royal Astronomical Society Darwin Lecture.

"Seeing the invisible; the dark side of the Universe": Science of the Cosmos, Science in the Cosmos, FBBVA Foundation, Madrid.

"New Scientist Instant Expert: Relativity and Beyond", Expert Speaker, Manchester, UK

"The Dark Side" - Feature length article in the PHOENIX Fashion Magazine.

2016 *"Other Worlds"*: A panel debate at the *How The Light Gets In* festival of Philosophy and Art hosted by the Institute of Art and Ideas.

"A journey through the expanding Universe": Stand-up science and comedy event to promote the UK joining LSST, Oxford UK.

"The Dark side of the Universe" recorded at an evening talk at the Aspen Center for Physics and broadcast on Grassroots TV, Aspen, CO, USA.

"Other Worlds and Multiple Universes": Residence Life Event, University of Edinburgh.

2015 *"Are we darkened by light?"* at the Tate Modern: A talk followed by a panel discussion between scientists, architects and artists as part of the *Light and Dark Matters* series.

Science Stories at the Winchester Planetarium: two talks for the Winchester Science Centre entitled: *The Dark side of the Universe*

The Big Bang and Beyond: Institute of Physics Annual Physics Teachers Convention, UK

2014 *Physics to Blow your Mind.* Sold-out talk for the International Science Festival,

The *Dark Universe*: TED-x talk with over 23,000 online views.

The Universe: Opening keynote talk for the Grantham Gravity Science Festival, and schools gravity workshop.

What is the nature of the Dark Universe: an invited comment article for the 25th Anniversary edition of Physics World magazine.

2013 *Science Now Series 1: Dark Matters.* Online Seminar for UK Science Teachers in collaboration with the Centre for Science Education, Sheffield Hallam University.

Observing the Dark Universe: Sold-out Public Talk at the Ideas Festival in Bristol. Interviews at the National Astronomy Meeting for the Jodcast, Naked Astronomy Podcast, and BBC Radio Cambridgeshire Naked Scientists.

2012 *Through a lens darkly: Astronomers reach new frontiers of Dark Matter*. A press conference at the AAS, Radio Interviews for BBC Radio 4 Material World and BBC World Service, Science in Action. Interviews published in Discovery Magazine, New Scientist, BBC News Online, Fox News, Washington Post, Sunday Times, Telegraph, Metro, Daily Mail, Die Welt, Earth and Sky Magazine, University of Edinburgh Edit Alumni Magazine.

University of Edinburgh's Maxwell Lecture: The Dark Universe. Public lecture for the annual "Science on Summers Evening". Public lecture during the first Innovative Learning Week.

2011 Development of web resources to encourage girls to take physics A-levels/Highers in collaboration with the Centre for Science Education, Sheffield Hallam University.

2010 *Big Telescopes, Big Questions*; a live web conference to Scottish secondary schools.

2009 *She's an Astronomer: A typical day*. A short film for BCC news.

2008 *The violent lives of galaxies caught in the cosmic dark matter web*. A press conference at the AAS, CBC Quirks and Quarks Radio show, a public lecture for the RASC, the Royal Observatory Public Talks and the Dundee Astronomical Society. Interviews for Starlight Magazine, Talk 107 FM, the Jodcast and the IoP Careers Guide.

2007 Science World XX Evening. Panel member for the UBC Welcome Women Event.

2006 Interview for the the Brightside Trust, a charity that supports young people with no history of higher education in their family to get into University.

2005 *Probing Dark Matter and Dark Energy with Weak Gravitational Lensing*. A public lecture for the Royal Astronomical Society of Canada (RASC).

Full List: Invited Conference, Seminars and Advanced Schools.

2021 *Observing the evolution of large-scale structures*
Plenary - Cosmology from Home virtual conference

Cosmic concordance or tension: Cosmology from the Kilo-Degree Survey
Astronomy Colloquium, Nottingham University, UK
Joint Colloquium of STSci and John Hopkins University, Baltmore, US.
Albert Einstein Instititute, Potsdam, Germany.
University of Zurich, Institute for Compuationational Science, Switzerland

2020 *Cosmic concordance or tension: Cosmology from the Kilo-Degree Survey*
Astrophysics Seminar, University of Waterloo, Canada
Interdisciplinary Seminar, Kobayashi-Maskawa Institute, Nagoya University, Japan
Astronomy Colloquium, University of California, Santa Cruz, USA
Kavli Summer Series, University of Cambridge, UK
Astronomy Colloquium, University of Surrey, UK
Physics Colloquium, University of Bonn, Germany.

Understanding the Dark Side of the Universe
Chemistry, Physics and Technology Section of the Max Planck Society's Scientific Council

2019 *Cosmological tension in the Dark Universe? New physics or new data challenges*
Research Highlight Plenary - SUPA Annual Gathering, University of Strathclyde, Glasgow.

Fostering Strong Academic Networks
Invited panelist and speaker - 13th Forum on the Internationalisation of Sciences and Humanities, Berlin, Alexander von Humboldt Foundation.

New Directions in Cosmology
Physics Colloquium, Heidelberg University, Germany
Physics Colloquium, Ruhr-Universitat Bochum, Germany.

2018 *Cosmological tension: new physics or new data challenges*
Joint Astronomy Colloquium: ESO, MPE, MPA and LMU, Munich, Germany
Invited plenary at LSST@Europe, Lyon
Sackler Lecture: Institute of Astronomy, Cambridge

Weak Lensing
Invited Review at CosmoAndes, Chile
Lecturer CosmoAndes Graduate School

2017 *Cosmological tension: new physics or new data challenges*
Invited plenary at Dark Universe 2017, Munich University

Cosmology; cracks in the concordance model
Invited plenary at the Annual Netherlands Astronomy Conference (NAC2017)

New Directions in Cosmology with ESO's Surveys
Invited speaker at Reaching New Heights in Astronomy 2017, ESO, Germany.

Cosmology with the Kilo Degree Survey
Advances in theoretical cosmology in light of data, NORDITA, Stockholm, Sweden
National Astronomy Meeting 2017, Hull, UK.
Astronomy seminar: Durham University, UK
Cosmology seminar: Imperial College London, UK
General Interest Physics seminar: Lancaster University, UK.

New Directions in Cosmology
Particle Physics Seminar, Liverpool University, UK.

2016 *New Directions in Cosmology*
Invited Review at the Annual Particle Physics Theory Christmas Meeting, Durham, UK.

Weak Gravitational Lensing by Large-Scale Structure aka "Cosmic Shear"
Invited Review at A Century of Gravitational Lensing: from Theory to Applications, Leiden, NL.

Cosmology from KiDS
Astronomy seminar: Cardiff University, UK
Astronomy seminar: Manchester University, UK

Cosmology and Large-Scale Structure
Invited Lecture at the STFC Summer School, UK

2015 *Science Highlights from the Kilo-Degree Survey*
Astronomy seminar: Portsmouth University, UK

2014 *Observing the Dark Side*
Invited plenary at COSMOS 2014, Chicago, USA

Invited keynote talk at the Heidelberg Joint Astronomy Colloquia Summer series, Germany
Physics General Interest Seminar: Birmingham University UK
Astronomy seminar: Queens University, Belfast, UK
Relativity and Cosmology seminar: Queen Mary University of London, UK
Astrophysics Seminar: Mullard Space Science Laboratory, UCL, UK

Online Learning and Innovative teaching with MOOCs
Invited keynote talk Frontiers in Science Education, Aarhus University, Denmark

Tales from the Dark Side of the Universe: science leadership skills
Invited keynote talk WISE2014: Showcasing women in science and engineering

2nd Azores International School on Observational Cosmology
Graduate School Lecturer: Gravitational Lensing, Portugal

2013 *Weak Gravitational Lensing*
Invited plenary at the National Astronomy Meeting 2013, St Andrews University, UK.
Invited review at "Tales of Lambda" Conference, Nottingham University, UK.
Invited review at "LSST@Europe" Conference, Cambridge University, UK.
Invited plenary review at "Mining the cosmic Frontier in the Planck Era", UC Davis, USA. (declined - maternity leave)
Invited talk at "Weak Gravitational Lensing - beyond the ordinary", Maison du Seminare, Nice, France. (declined - maternity leave)
Astronomy colloquium: Sussex University, UK

2012 *The Dark Universe: a view from CFHTLenS*
Physics General Interest seminar, University of Bristol, UK.
Astrophysics Bi-Annual International Colloquium: Princeton University, USA.
Cosmology Seminar: University of Pennsylvania, USA.
Invited talk at CosmoBias - International Meeting on Physical Bias in Cosmology, Laboratoire de Marseilles, Marseilles, France. (declined)

Mastering your Elevator Pitch **Invited talk** at Future Science Leadership Seminars at the University of Oxford, UK.

2011 *The CFHTLenS view of Dark Matter in Clusters and Groups*
Invited talk at Dark Matter in Clusters Workshop, Nottingham, UK.

Weak Lensing and Dark Matter
Invited review talk at HST May Symposium, Baltimore, USA. (declined)

Charting the Dark Universe with CFHTLenS
Astronomy Seminar, University of Nottingham, UK.
Physics Seminar, University of Portsmouth, UK.

2010 *Charting the Dark Universe*
Invited plenary talk at JENAM, 'Highlight talk by young outstanding astronomer', Lisbon, Portugal.

Recent progress from the CFHTLenS survey
Invited talk at "The Observational Pursuit of Dark Energy after Astro2010": Caltech, CA, USA.

What Gravitational Lensing tells us
Invited talk at Darkness Visible: Dark Matter in Astrophysics and Particle Physics, Institute of Astronomy, Cambridge, UK.

Charting the Large Scale Structure of the Universe with Weak Gravitational Lensing
Astrophysics Seminar, University College London, UK.
Astrophysics Research Institute Seminar, Liverpool John Moores University, UK.
Astrophysics Seminar, University of Oxford, UK.
Physics and Astronomy Seminar, University of Birmingham, UK.
Theoretical Astrophysics Seminar, University of Leicester, UK.

2009 *DUEL Cosmology and Lensing Summer School Practical Week 2.*
Institut d'Astrophysique de Paris, France
This was a 5 day practical course for graduate students lead by Thomas Erben and myself to reduce and analyse real astronomical data and use lensing techniques to map dark matter.

Cosmology on the Beach, Winter Graduate School
Invitation to be one of 5 course lecturers at this well known graduate school in Mexico organised by Berkley University, USA. (declined maternity leave)

2008 *IPM International Advanced School on Weak Gravitational Lensing Techniques.*
Institute for studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran.
This was a 6 day practical course for graduate students. I designed the course structure, gave the lectures and planned and carried out the practical sessions to analyse real astronomical data using lensing techniques to map dark matter.

The violent lives of galaxies caught in the cosmic dark matter web
Jodrell Bank Centre for Astrophysics Colloquium, University of Manchester, UK
Astrophysics Colloquium, Imperial College London, UK.

Fundamental limitations of weak lensing cosmology
Cosmology Seminar, Oxford University, UK.
Departmental Colloquium, Durham University, UK.

2007 *Mass, gas and galaxies in the Abell 901/902 supercluster.*
Physics Colloquium, Lawrence Berkeley National Lab, Berkeley, USA
Extragalactic Series, Space Telescope Science Institute, Baltimore, USA.
Herzberg Institute of Astrophysics seminar series, Victoria, Canada.

Understanding Dark Matter and Dark Energy with weak gravitational lensing.
Cosmology Colloquium, Simon Fraser University, Canada. (2007)

2006 A*re there any show-stoppers for measuring high precision cosmology with weak lensing?*
Astronomy Seminar, Caltech, USA.

2005 *STEPs towards high precision cosmology with weak gravitational lensing*
Cosmology Seminar, University of California, Berkeley, USA.
Herzberg Institute of Astrophysics seminar series, Victoria, Canada,

2004 *Dark matter maps and cosmology with HST: a cosmic shear analysis of GEMS*
Institute of Astronomy seminar, Edinburgh University, UK.

Bibliography

Full List: Refereed Papers in Primary Journals

1. *Cosmic Shear Cosmology beyond 2-point statistics: A combined peak count and correlation function analysis of DES-Y1*

   Harnois-Deraps, J., Martinet, N., Castro, T., Dolag, K., Giblin, B., **Heymans, C.**, Hildebrandt, H., Xia, Q., 2020 MNRAS in press.

2. *Probing Galaxy Bias and Intergalactic Gas Pressure with KiDS Galaxies-tSZ-CMB Lensing Cross-correlations*

   Yan, Z., van Waerbeke, L., Troester, T., Wright, A, Alonso, D., Asgari, M., Bilicki, M., Erben, T., Gu, S., **Heymans, C.**, Hildebrandt, H., Hinshaw, G., Koukoufilippas, N., Kannawadi, A., Kuijken, K., Mead, A., Shan, H., 2021 A&A, in press.

3. *Bright galaxy sample in the Kilo-Degree Survey Data Release 4: Selection, photometric redshifts and physical properties*

   Bilicki, M., Dvornik, A., Hoekstra, H., Wright, A., Chisari, N., Vakili, M., Asgari, M., Giblin, B., **Heymans, C.**, Hildebrandt, H., Holwerda, B., Hopkins, A., Johnston, H., Kannawadi, A., Kohlinger, F., Kuijken, K., Nakoneczny, S., Shan, H., Sonnenfeld, A., Valentijn, E., 2021 A&A, in press.

4. *The weak lensing radial acceleration relation: Constraining modified gravity and cold dark matter theories with KiDS-1000.*

   Brouwer, M., Oman, K., Valentijn, E., Bilicki, M., **Heymans, C.**, Hoekstra, H., Napolitano, N., Roy, N., Tortora, C., Wright, A., Asgari, M., van den Busch, J., Dvornik, A., Erben, T., Giblin, B., Graham, A., Hildebrandt, H., Hopkins, A., Kannawadi, A., Kuijken, K., Shan, H., Troester, T., 2021 A&A, 650,113.

5. *Photometric selection and redshifts for quasars in the Kilo-Degree Survey Data Release 4*

   Nakoneczny, S., Bilicki, M., Pollo, A., Asgari, M., Dvornik, A., Erben, T., Giblin, B., **Heymans, C.**, Hildebrandt, H., Kannawadi, A., Kuijken, K., Napolitano, N., 2021 A&A, 649, 81.

6. *Strong detection of the CMB lensing x galaxy weak lensing cross-correlation from ACT-DR4, Planck Legacy and KiDS-1000*

   Robertson, N., Alonso, D., Harnois-Deraps, J., Darwish, O., Kannawadi, A., Amon, A., Asgari, M., Bilicki, M., Calabrese, E., Choi, S., Devlin, M., Dunkley, J., Dvornik, A., Erben, T., Ferraro, S., Fortuna, M., Giblin, B., Han, D., **Heymans, C.**, Hildebrandt, H., Hill, C., Hilton, M., Ho, S., Hoekstra, H., Hubmayr, J., Hughes, J., Joachimi, B., Joudaki, S., Knowles, K., Kuijken, K., Madhavacheril, M., Moodley, K., Miller, L., Namikawa, T., Nati, F., Niemack, M., Page, L., Partridge, B., Schaan, E., Schillaci, A., Schneider, P., Sehgal, N., Sherwin, B., Sifon, C., Staggs, S., Troester, T., van Engelen, A., Valentijn, E., Wollack, E., Wright, A., Xi, Z., 2021 A&A, 649, 146.

7. *Magnification bias in galaxy surveys with complex sample selection functions*

   von Wietersheim-Kramsta, M., Joachimi, B., van den Busch, J., **Heymans, C.**, Hildebrandt, H., Asgari, M., Troester, T., Wright, A., 2021 MNRAS, 504, 1452.

8. *HMCode-2020: Improved modelling of non-linear cosmological power spectra with baryon feedback*

   Mead, A., Brieden, S., Troester, T., **Heymans, C.**, 2021 MNRAS 502,1401.

9. *Organised Randoms: learning and correcting for systematic galaxy clustering patterns in KiDS using self-organising maps.*

   Johnston, Harry, Wright, A., Joachimi, B., Bilicki, M., Chisari, A., Dvornik, A., Erben, T., Giblin, B., **Heymans, C.**, Hildebrandt, H., Hoekstra, H., Joudaki, S., Vakili, M., 2021 A&A, 648, 98.

10. *KiDS-1000 methodology: Modelling and inference for joint weak gravitational lensing and spectroscopic galaxy clustering analysis*

    Joachimi, B., Lin, C., Asgari, M., Troester, T., **Heymans, C.**, Hildebrandt, H., Kohlinger, F., Sanchez, A., Wright, A., Bilicki, M., Blake, C., van den Busch, J., Crocce, M., Dvornik, A., Erben, T., Getman, F., Giblin, B., Hoekstra, H., Kannawadi, A., Kuijken, K., Napolitano, N., Schneider, P., Scoccimarro, R., Sellentin, E., Shan, H., von Wietersheim-Kramsta, M., Zuntz, J., 2021 A&A, 646,129.

11. *KiDS-1000 Cosmology: Multi-probe weak gravitational lensing and spectroscopic galaxy clustering constraints*

    Heymans, C., Troester, T., Asgari, M., Blake, C., Hildebrandt, H., Joachimi, B., Kuijken, K., Lin, C., Sanchez, A., van den Busch, J., Wright, A., Amon, A., Bilicki, M., de jong, J., Crocce, M., Dvornik, A., Erben, T., Getman, F., Giblin, B., Glazebrook, K., Hoekstra, H., Joudaki, S., Kannawadi, A., Kohlinger, F., Lidman, C., Miller, L., Napolitano, N., Parkinson, D., Schneider, P., Shan, H., Wolf, C., 2021 A&A, 646, 140.

12. *KiDS-1000 catalogue: weak gravitational lensing shear measurements*

    Giblin, B., **Heymans, C.**, Asgari, M., Hildebrandt, H., Hoekstra, H., Joachimi, B., Kannawadi, A., Kuijken, K., Lin, C., Miller, L., Troester, T., van den Busch, J., Wright, A., Bilicki, M., Blake, C., Dvornik, A., Erben, T., Getman, F., Napolitano, N., Schneider, P., Shan, H., 2021 A&A, 645, 105.

13. *KiDS-1000 Cosmology: Cosmic shear constraints and comparison between two point statistics*

    Asgari, M., Lin, C., Joachimi, B., Giblin, B., **Heymans, C.**, Hildebrandt, H., Kannawadi, A., Stoelzner, B., Troester, T., van den Busch, J., Wright, A., Amon, A., Bilicki, M., Blake, C., de jong, J., Crocce, M., Dvornik, A., Erben, T., Getman, F., Hoekstra, H., Kohlinger, F., Kuijken, K., Miller, L., Radovich, M., Schneider, P., Shan, H., 2021 A&A, 645, 104.

14. *KiDS-1000 Cosmology: constraints beyond flat LCDM*

    Troester, T., Asgari, M., Blake, C., Cataneo, M., **Heymans, C.**, Hildebrandt, H., Joachimi, B., Lin, C., Sanchez, A., Wright, A., Bilicki, M., Bose, B., Crocce, M., Dvornik, A., Erben, T., Giblin, B., Glazebrook, K., Hoekstra, H., Joudaki, S., Kannawadi, A., Kohlinger, F., Kuijken, K., Lidman, C., Lombriser, L., Mead, A., Parkinson, D., Schneider, P., Shan, H., Wolf, C., Xia, Q., 2021 A&A, 649, 88.

15. *KiDS-1000 catalogue: Redshift distributions and their calibration*

    Hildebrandt, H., van den Busch, J., Wright, A., Blake, C., Joachimi, B., Kuijken, K, Troester, T., Asgari, M., Bilicki, M., Dvornik, A., Erben, T., Getman, F., **Heymans, C.**, Kannawadi, A., Lin, C., Shan, H., 2021 A&A, 647, 124.

16. *Halo shapes constrained from a pure sample of central galaxies in KiDS-10000*

    Georgiou, C., Hoekstra, H., Kuijken, K., Biliki, M., Dvornik, A., Erben, T., Giblin, B., **Heymans, C.**, Hildebrandt, H., de Jong, J., Kannawadi, A., Schneider, P., Schrabback, T., Shan, H., Wright, A., 2021 A&A, 647, 185.

17. *Minimising the impact of scale-dependent galaxy bias on the joint cosmological analysis of large scale structures*

    Asgari, M., Friswell, I., Yoon, M., **Heymans, C.**, Dvornik, A., Joachimi, B., Simon, P,, Zuntz, J., 2021 MNRAS,501, 3003.

18. *Tightening weak lensing constraints on the ellipticity of galaxy-scale dark matter haloes*

    Schrabback, T., Hoekstra, H., Van Waerbeke, L., van Uitert, E., Georgiou, C., Asgari, M., Cote, P., Cuillandre, J, Erben, T., Ferrarese, L., Gwyn, S., **Heymans, C.**, Hildebrandt, H., Kannawadi, A., Kuijken, K., Leauthaud, A., Makler, M., Mei, S., Miller, L., Raichoor, A., Schneider, P., 2021 A&A, 646, 73.

19. *Discovery of two Einstein crosses from massive post-blue nugget galaxies at z>1 in KiDS*

    Napolitano, N., Li, R., Spiniello, C., Tortora, C., Sergeyev, A., Ago, G., Gui, X., Xie, L., Radovich, M., Koopmans, L., Kuijken, A., Bilicki, M., Erben, T., Getman, F., **Heymans, C.**, Hildebrandt, H., Moya, C., Roy, N., Schneider, P., Shan, H., Vernardos, G., Wright, A., 2020 ApJ, 904L, 31.

20. *On the road to per-cent accuracy IV: ReACT - computing the non-linear power spectrum beyond LCDM*

    Bose, B., Cataneo, M., Troester, T., Xia, Q., **Heymans, C.**, Lombriser, L., 2020 MNRAS, 498, 4650.

21. *An adapted filter function for density split statistics in weak lensing*

    Burger, P., Schneider, P., Demchenko, V., Harnois-Deraps, J., **Heymans, C.**, Hildebrandt, H., Unruh, S., 2020 A&A, 642, 161.

22. *Testing gravity using galaxy-galaxy lensing and clustering amplitudes in KiDS-1000, BOSS and 2dFLenS*

    Blake, C., Amon, A., Asgari, M., Bilicki, M., Dvornik, A., Erben, T., Giblin, B., Glazebrook, K., **Heymans, C.**, Hildebrandt, H., Joachimi, B., Joudaki, S., Kannawadi, A., Kuijken, K., Lidman, C., Parkinson, D., Shan, H., Troester, T., van den Busch, K., Wolf, C., Wright, A., 2020 A&A, 642, 158.

23. *KiDS+GAMA: The weak lensing calibrated stellar-to-halo mass relation of central and satellite galaxies*

    Dvornik, A., Hoekstra, H., Kuijken, K., Wright, A., Asgari, M., Bilicki, M., Erben, T., Giblin, B., Graham, A., **Heymans, C.**, Hildebrandt, H., Hopkins, A., Kannawadi, A., Lin, C.,Taylor, E., Troester, T., 2020 A&A, 642, 83.

24. *Testing KiDS cross-correlation redshifts with simulations*

    van den Busch, J., Hildebrandt, H., Wright, A., Morrison, C., Blake, C., Joachimi, B., Erben, T., , **Heymans, C.**, Kuijken, K., 2020 A&A, 642, 200.

25. *A hydrodynamical halo model for weak-lensing cross correlations*

    Mead, A., Troester, T., **Heymans, C.**, Van Waerbeke, L., McCarthy, I., 2020 A&A, 641, 130.

26. *KiDS+VIKING-450: Improved cosmological parameter constraints using SOM redshift calibration*

    Wright, A., Hildebrandt, H., van den Busch, J., **Heymans, C.**, Joachimi, B., Kannawadi, A., Kuijken, K., 2020 A&A, 640, 14.

27. *KiDS+VIKING+GAMA: Testing semi-analytic models of galaxy evolution with galaxy-galaxy-galaxy-lensing*

    Linke, L. Simon, P., Schneider, P., Erben, T., Farrow, D., **Heymans, C.**, Hildebrandt, H., Hopkins, A., Kannawadi, A., Napolitano, N., Sifon, C., Wright, A., 2020 A&A, 640, 59.

28. *KiDS+VIKING-450 and DES-Y1 combined: Mitigating baryon feedback uncertainty with COSEBIs*

    Asgari, M., Troester, T., **Heymans, C.,** Hildebrandt, H., van den Busch, J. L., Wright, A., Choi, A., Erben, T., Joachimi, B., Joudaki, S., Kannawadi, A., Kuijken, K., Schneider, P., Zuntz, J., 2020, A&A, 634, 127.

29. *KiDS+VIKING-450 and DES-Y1 combined: Cosmology with cosmic shear*

Joudaki, S., Hildebrandt, H., Traykova, D., Chisari, N., **Heymans, C.,** Kannawadi, A., Kuijken, K., Wright, A., Asgari, M., Erben, T., Hoekstra, H., Joachimi, B., Miller, L., Troester, T., van den Busch, J. L., 2020, A&A Letters, 638L, 1.

30. *Photometric Redshift Calibration with Self Organising Maps*

Wright, A., Hildebrandt, H., van den Busch, J., **Heymans, C.,** 2020, A&A, 637, 100.

31. *Cosmology from large-scale structure: Constraining LCDM with BOSS*

Troester, T., Sanchez, A., Asgari, M., Blake, C., Crocce, M., **Heymans, C.,** Hildebrandt, H., Joachimi, B., Joudaki, S., Kannawadi, A., Lin, C., Wright, A., 2020, A&A Letters, 633, 10.

32. *The effects of varying depth in cosmic shear surveys*

Heydenreich, S., Schneider, P., Hildebrandt, H., Asgari, M., **Heymans, C.,** Joachimi, B., Kuijken, K., Lin, C, Troester, T., van den Busch, J. 2020, A&A, 634, 104.

33. *On the road to percent accuracy III: non-linear reaction of the matter power spectrum to massive neutrinos*

Cataneo, M., Emberson, J., D., Inman, D., Harnois-Deraps, J., **Heymans, C.,** 2020, MNRAS, 491, 3101.

34. *A gravitational lensing detection of filamentary structures connecting luminous red galaxies*

Xia, Q., Robertson, N., **Heymans, C.,** Amon, A., Asgari, M., Cai, Y-C., Erben, T., Harnois-Deraps, J., Hildebrandt, H., Kannawadi, A., Kuijken, K., Schneider, P., Sifon, C., Troester, T., Wright, A., 2020, A&A, 633, 89.

35. *KiDS+VIKING-450: Cosmic shear tomographic with optical + infrared data*

Hildebrandt, H., Kohlinger, F., van den Busch, L., Joachimi, B., **Heymans, C.**, Kannawadi, A., Wright, A., Asgari, M., Blake, C., Hoekstra, H., Joudaki, S., Kuijken, K., Miller, L., Morrison, C., Troster, T., Amon, A., Archidiacono, A., Brieden, S., Choi, A., de Jong, J., Erben, T., Giblin, B., Mead, A., Peacock, J., Radovich, M., Schneider, P., Sifon, C., Tewes, M., 2019, A&A, 633, 69..

36. *The SPTpol Extended Cluster Survey*

Bleem, L., et al (130 authors including **Heymans, C.**), 2020, ApJS, 247, 25.

37. *On the road to percent accuracy II: calibration of the non-linear matter power spectrum for arbitrary cosmologies*

Giblin, B., Cataneo, M., Moews, B., **Heymans, C.,** 2019, MNRAS, 490, 4826.

38. *KiDS+VIKING-450: A new combined optical & near-IR dataset for cosmology and astrophysics*

Wright, A., Hildebrandt, H., Kuijken, K., Erben, T., Blake, R., Buddelneijer, H., Choi, A., Cross, N., de Jong, J., Edge, A., Gonzalez-Fernandez, C., Gonzales Solares, E., Grado, A., **Heymans, C.**, Irwin, M., Kupcu Yoldas, A., Lewis, J., Mann, R., Napolitano, N,, Radovich, M., Schneider, P., Sifon, C., Sutherland, W., Sutorius, E., Verdoes Kleijn, G., 2019. A&A, 632, 34..

39. *On the road to per-cent accuracy: nonlinear reaction of the matter power spectrum to dark energy and modified gravity*

Cataneo, M., Lombriser, L., **Heymans, C.,** Mead, A., Barreira, A., Bose, S., Li, B., 2019, MNRAS, 488, 2121.

40. *GAMA+KiDS: Alignment of galaxies in galaxy groups and its dependence on galaxy scale*
Georgiou, C., Chisari, N., Fortuna, M., Hoesktra, H., Kuijken, K., Joachimi, B., Vakili, M., Bilicki, M., Dvornik, A., Erben, T., **Heymans, C.**, Napolitano, N., Shan, H., 2019, A&A 628, 31.

41. *Consistent cosmic shear in the face of systematics: a B-mode analysis of KiDS-450, DES-SV and CFHTLenS*
Asgari, M., **Heymans, C.,** Hildebrandt, H., Miller, L., Schneider, P., Amon, A., Choi, A., Erben, T., Georgiou, C., Harnois-Deraps, J., Kuijken, K., 2019, A&A, 624, 134.

42. *The fourth data release of the Kilo-Degree Survey: ugri imaging and nine-band optical-IR photometry over 1000 square degrees*
Kuijken, K., **Heymans, C.**, Dvornik, A., Hildebrandt, H., de Jong, J., Wright, A., Erben, T., Bilibki, M., Giblin, B., Shan, H., Getman, F., Grado, A., Hoekstra, H., Miller, L., Napolitano, N., Paolilo, M., Radovich, M., Schneider, P., Sutherland, W., Tewes, M., Tortora, C., Verdoes Kleijn, G., A&A 2019, 625, 2.

43. *Dark Energy Survey Year 1: An independent E/B-mode cosmic shear analysis*
Asgari, M., **Heymans, C.,** 2019, MNRAS 484L, 59A

44. *Probing the missing baryons with the Sunyaev-Zel'dovich effect from filaments*
de Graaff, A., Cai, Y., **Heymans, C.,** Peacock, J., 2019, A&A, 624, 48.

45. *KiDS + GAMA: Intrinsic alignment model constraints for current and future weak lensing cosmology*
Johnston, H., Georgiou, C., Joachimi, B., Hoekstra, H., Chisari, N., E., Farrow, D., Fortuna, M., **Heymans, C.,** Joudaki, S., Kuijken, K., Wright, A., 2019, A&A, 624, 30.

46. *Towards emulating cosmic shear data: revisiting the calibration of the shear measurements for the Kilo-Degree Survey*
Kannawadi, A., Hoekstra, H., Miller, L., Viola, M., Fenech Conti, I., Herbonnet, R., Erben, T., **Heymans, C.,** Hildebrandt, H., Kuijken, K. Vakili, M., Wright A., 2019, A&A, 624, 92.

47. *LinKS: Discovering galaxy-scale strong lenses in the Kilo-Degree Survey using Convolutional Neural Networks*
Petrillo, C., Tortora, C., Verbardos, G., Koopmans, L., Verdoes Kleijn, G., Bilicki, M., Napolitano, N., Chatterjee, S., Covone, G., Dvornik, A., Erben, T., Getman, F., Giblin, B., **Heymans, C.,** de Jong, J., H., Kuijken, K. Schneider, P., Shan, H., Spiniello, C., Wright A., 2019, MNRAS, 484, 3879

48. *A Unified Analysis of Four Cosmic Shear Surveys*
Chang, C., Wang, M., Dodelson, S., Eifler, T., **Heymans, C.,** Jarvis, M., Jee, M., Joudaki, S., Krause, E., Malz, A., Mandelbaum., R., Mohammed, I., Schneider, M., Simet, M., Troxel, M., Zuntz, J., 2019, MNRAS, 482, 3696

49. *Large-scale structure probes of modified gravity*
Heymans, C., Zhao, G-B., 2018 IJMPD, 27,5

50. *Studying galaxy troughs and ridges using Weak Gravitational Lensing with the Kilo-Degree Survey*
Brouwer, M., Demchenko, V., Harnois-Deraps, J., Bilicki, M., **Heymans, C.**, Hoekstra, H., Kuijken, K., Alpaslan, M., Brough, S., Cai, Y-C., Costa-Duarte, M., Dvornik, A., Erben, T., Hildebrandt, H., Sifon, C.,van Uitert, E., 2018, MNRAS, 481, 5189

51. *KiDS-450: Enhancing cosmic shear with clipping transformations*

    Giblin, B., **Heymans, C.,** Harnois-Deraps, J., Simpson, F., Dietrich, J., Van Waerbeke, L., Amon, A., Asgari, M., Erben, T., Hildebrandt, H., Joachimi, B., Kuijken, K., Martinet, M., Schneider, P., Troester, T., 2018, MNRAS, 480, 5529

52. *Cosmological Simulations for Combined-Probe Analyses: Covariance and Neighbour-Exclusion Bias*

    Harnois-Deraps, J., Amon, A., Choi, A., Demchenko, V., **Heymans, C.,** Kannawadi, A.**,** Nakajima, R., Sirks, E., van Waerbeke, L., Cai, Y-C., Giblin, B., Hildebrandt, H., Hoekstra, H., Miller, L., Troster, T., 2018, MNRAS, 481, 1337

53. *KiDS+2dFLenS+GAMA: Testing the cosmological model with the E_G statistic*

    Amon, A., Blake, C., **Heymans, C.,** Leonard, C., Asgari, M., Bilicki, M., Choi, A., Erben, T., Glazebrook, K., Harnois-Deraps, J., Hildebrandt, H., Hoekstra, H., Joachimi, B., Joudaki, S., Kuijken, K., Lidman, C., Parkinson, D., Valentijn, Wolf, C., 2018, MNRAS, 479, 3422

54. *Multi-wavelength scaling relations in galaxy groups: a detailed comparison of GAMA and KiDS observations to BAHAMAS simulations*

    Jakobs, A., Viola, M., McCarthy, I., van Waerbeke, L., Hoekstra, H., Robotham, A., Hinshaw, G., Hojjati, A., Tanimura, H., Trostre, T., Baldry, I., **Heymans, C.,** Hildebrandt, H., Kuijken, K., Schaye, J., Sifon, C., van Uitert, E., Valentijn, E., Verdoes Kleijn, G., Wang, L., 2018, MNRAS, 480, 3338

55. *Unveiling Galaxy Bias via the Halo Model, KiDS and GAMA*

    Dvornik, A., Kuijken, K., Hoekstra, H., Schneider, P., Amon, A., Nakajima, R., Viola, M., Choi, A., Erben, T., Farrow, D., **Heymans, C.,** Hildebrandt, H., Sifon, C., Wang, L., 2018 MNRAS, 479, 2140

56. *The skewed weak lensing likelhood: why biases arise despite data and theory being sound*

    Sellentin, E., **Heymans, C.,** Harnois-Deraps, J., 2018 MNRAS, 477, 4879

57. *Photometric redshifts for the Kilo-Degree Survey: Machine-learning analysis with artificial neural networks*

    Bilicki, M., Hoekstra, H., Amaro, V., Blake, C., Brown, M., Cavuoti, S., de Jong, J., Hildebrandt, H., Wolf, C., Amon, A., Brescia, M., Brough, S., Costa-Duarte, M., Erben, T., Glazebroook, K., Grado, A., **Heymans, C.,** Jarrett, T., Joudaki, S., Kuijken, K., Longo, G., Napolitano, N., Parkinson, D., Vellucci, C., Verdoes Kleijn, G., Wang, L., 2018 A&A, 616, 69

58. *KiDS-i-800: Comparing weak gravitational lensing measurements in same-sky surveys*

    Amon, A., **Heymans, C,** Klaes, D., Erben, T., Blake, C., Hildebrandt, H., Hoekstra, H., Kuijken, K., Miller, L., Morrison, C., Choi, A., de Jong, J., Glazebrook, K., Irissari, N., Joachimi, B., Joudaki, S., Kannawadi, A., Lidman, C., Napolitano, N., Parkinson, D., Schneider, P., van Uitert, E., Viola, M., Wolf, C., 2018, MNRAS, 477, 4285

59. *KiDS+GAMA: Cosmology constraints from a joint analysis of cosmic shear, galaxy-galaxy lensing and angular clustering*

    van Uitert, E., Joachimi, B., Joudaki, S., Amon, A., **Heymans, C,** Kohlinger, F., Asgari, M., Blake, C., Choi, A., Erben T., Farrow, D., Harnois-Deraps, J., Hildebrandt, H., Hoekstra, H., Kitching, T., Klaes, D., Kuijken, K., Merten, J., Miller, L., Nakajima, R., Schneider, P., Valentijn, E., Viola, M., 2018, MNRAS 476, 4662

60. *Galaxy And Mass Assembly (GAMA): the G02 field, Herschel-ATLAS target selection and Data Release 3*

    Baldry, I., Liske, J., Brown, M., Robothan, A., Driver, S., Dunne, L., Alpaslan, M., Brough, S., Cluver, M., Eardley, E., Farrow, D., **Heymans, C.,** Hildebrandt, H., Hopkins, A., Kelvin, L., Loveday, J., Moffett, A., Norberg, P., Owers, M., Taylor, E., Wright, A., Bamford, S., Bland-Hawthorn, J., Bourne, N., Bremer, M., Colless, M., Conselice, C., Croom, S., Davies, L., Foster, C., Grootes, M., Holwerdea, B., Jones, D., Kafle, P., Kuijken, K., Lara-Lopex, M., Lopez-Sanchez, A., Meyers, M., Phillipps, S., Sutherland, W., Kampen, E., Wilkins, S, 2018, MNRAS, 474, 3875

61. *KiDS-450 + 2dFLenS: Cosmological parameter constraints from weak gravitational lensing tomography and overlapping redshift-space galaxy clustering*

    Joudaki, S., Blake, C., Johnson, A., Amon, A., Asgari, M., Choi, A., Erben, T., Glazebrook, K., Harnois-Deraps, J., **Heymans, C.,** Hildebrandt, H., Hoekstra, H., Klaes, D., Kuijken, K., Lidman, C., Mead, A., Miller, L., Parkinson, D., Poole, G., Schneider, P., Viola, M., Wolf, C., 2018, MNRAS, 474, 4894

62. *KiDS-450: Cosmological constraints from weak lensing peak Statistics - I: Inference from an analytical prediction of high signal-to-noise ratio convergence peaks*

    Shan, H., Liu, X., Hildebrandt, H., Pan, C., Martinet, N., Fan, Z., Asgari, M., Harnois-Deraps, J., Hoekstra, H., Wright, A., Dietrich, J., Erben, T., Getman, F., Grado, A., **Heymans, C,** Klaes, D., Kuijken, K., Merten, J., Puddu, E., Radovich, M., Wang, Q., 2018, MNRAS, 474, 1116.

63. *KiDS-450: Cosmological constraints from weak lensing peak Statistics - II: Inference from shear peaks in N-body Simulations*

    Martinet, N., Schneider, P., Hildebrandt, H., Shan, H, Asgari, M., Dietrich, J., Harnois-Deraps, J., Erben, T., Grado, A., **Heymans, C,** Hoekstra, H., Klaes, D., Kuijken, K., Merten, J., Nakajima, R., 2018, MNRAS, 474, 712.

64. *The abundance of ultra-diffuse galaxies from groups to clusters: UDGs are more common in massive haloes*

    van der Burg, R., Hoekstra, H., Muzzin, A., Sifon, C., Viola, M., Bremer, M., Brough, S., Driver, S., Erben, T., **Heymans, C,** Hildebrandt, H., Holwerda, B., Klaes, D., Kuijken, K., McGee, S., Nakajima, R., Napolitano, N., Norberg, P., Taylor, E., Valentijn, E., 2017 A&A, 607, 79.

65. *Precision calculations of the cosmic shear power spectrum projection*

    Kilbinger, M., **Heymans, C.,** Asgari, M., Joudaki, S., Schneider, P., Simon, P., van Waerbeke, L., Harnois-Deraps, J., Hildebrandt, H., Kohlinger, F., Kuijken, K., Viola, M., 2017, MNRAS, 472, 2126

66. *KiDS-450: Cosmological parameter constraints from tomographic weak gravitational lensing*

    Hildebrandt, H., Viola, M., **Heymans, C.,** Joudaki, S., Kuijken, K., Blake, C., Erben, T., Joachimi, B., Klaes, D., Miller, L., Morrison, C., Nakajima, R., Verdoes Kleijn, G., Amon, A., Choi, A., Covone, G., de Jong, J., Dvornik, A., Fenech Conti, I., Grado, A., Harnois-Deraps, J., Herbonnet, R., Hoekstra, H., Kohlinger, F., McFarland, J., Mead, A., Merten, J., Napolitano, N., Peacock, J., Radovich, M., Schneider, P., Simon, P., Valentijn, E., van den Busch, J., van Uitert, E., Van Waerbeke, L., 2017, MNRAS, 465, 1454.

67. *Galaxy-Galaxy Lensing in EAGLE: comparison with data from 180 square degrees of the KiDS and GAMA surveys*

    Velliscig, M., Cacciato, M., Hoekstra, H., Schaye, J., **Heymans, C.,** Hildebrandt, H., Loveday, J., Norberg, P., Sifon, C., Schneider, P., van Uitert, E., Viola, M., Brough, S., Erben, T., Holwerda, B., Hopkins, A., Kuijken, K., 2017, MNRAS, 471, 2856

68. *KiDS-450: Tomographic Cross-Correlation of Galaxy Shear with Planck Lensing*

    Harnois-Deraps, J., Troester, T., Chisari, N., **Heymans, C.,** van Waerbeke, L., Asgari, M., Bilicki, M., Choi, A., Hildebrandt, H., Joudaki, S., Kuijken, K., Merten, J., Miller, L., Robertson, N., Schneider, P., Viola, M., 2017, MNRAS, 471, 1619

69. *KiDS-450: The tomographic weak lensing power spectrum and constraints on cosmological parameters*

Koehlinger, F., Viola, M., Joachimi, B., Hoekstra, H., van Uitert, E., Hildebrandt, H., Choi, A., Erben T., **Heymans, C.**, Joudaki, S., Klaes, D., Kuijken, K., Merten, J., Miller, L., Schneider, P., Valentijn, E., 2017, MNRAS, 471, 4412

70. *Cross-correlating Planck tSZ with RCSLenS weak lensing: Implications for cosmology and AGN feedback*

Hojjati, A., Troester, T., Harnois-Deraps, J., McCarthy, I., van Waerbeke, L., Choi, A., Erben, T., **Heymans, C.,** Hildebrandt, H., Hinshaw, G., Ma, Y., Miller, L.**,** Viola, M., Tanimura, H., MNRAS 2017, 471, 1565.

71. *KiDS-450: Testing extensions to the standard cosmological model*

Joudaki, S., Mead, A., Blake, C., Choi, A., de Jong, J.**,** Erben, T., **Heymans, C.,** Hildebrandt, H., Hoekstra, H., Joachimi, B., Klaes, D., Kohlinger, F., Kuijken, K., McFarland, J., Miller, L., Schneider, P., Viola, M., MNRAS 2017, 471,1259.

72. *The third data releases of the Kilo-Degree Survey and associated data products*

de Jong, J., Verdoes Kleijn, G., Erben, T., Hildebrandt, H., Kuijken, K., Sikkema, G., Brescia, M., Bilicki, M., Napolitano, N, Amaro, V., Begeman, K., Boxhoorn, D., R. Buddelmeijer, H., Cavuoti, S., Getman, F., Grado, A., Helmich, E., Huang, Z., Irisarri, N., LaBarbera, F., Longo, G., McFarland, J., Nakajima, R., Paolillo, M., Puddu, E., Radovich, M., Rifatto, A., Tortora, C., Valentijn, E., Vellucci, C., Vriend, W., Amon, A., Blake, C., Choi, A., Fenech Conti, I., Herbonnet, R., **Heymans, C.**, Hoekstra, H., Klaes, D., Merten, J., Miller, L., Schneider, P., Viola, M., A&A 2017, 604, 134.

73. *A KiDS weak lensing analysis of assembly bias in GAMA galaxy groups*

Dvornik, A., Cacciato, M., Kuijken, K., Brouwer, M., Hoekstra, H., Nakajima, R., van Uitert, E., Viola, M., Choi, A., Erben, T., Fenech-Conti, I., Farrow, D., Georgiou, C., Herbonnet, R., **Heymans, C.,** Hildebrandt, H., Holwerda, B., Hopkins, A., McFarland, J., Norberg, P., Schneider, P., Sifon, C., Valentijn, E., MNRAS 2017, 468, 3251.

74. *Halo ellipticity of GAMA galaxy groups from KiDS*

van Uitert, E., Hoekstra, H., Joachimi, J., Schneider, P., Bland-Hawthorn, J., Choi, A., Erben, T., **Heymans, C.,** Hildebrandt, H., Hopkins, A., Klaes, D., Kuijken, K., Nakajima, R., Napolitano, N., Schrabback, T., Valentijn, E., Viola, M., MNRAS 2017, 467, 4131.

75. *Cross-correlation of weak lensing and gamma rays: implications for the nature of dark matter*

Troester, T., Camera, S., Fornasa, M., Regis, M., van Waerbeke, L., Harnois-Deraps, J., Ando, S., Bilicki, M., Erben, T., Fornengo, N., **Heymans, C.,** Hildebrandt, H., Hoekstra, H., Kuijken, K., Viola, M., MNRAS 2017, 467, 2706

76. *Lensing is Low: Cosmology, Galaxy Formation, or New Physics?*

Leauthaud, A., Saito, S., Hilbert, S., Barreira, A., More, S., White, M., Alam, S., Behroozi, P., Bundy, K., Coupon, J., Erben, T., **Heymans, C.,** Hildebrandt, H., Mandelbaum, R., Miller, L., Moraes, B., Pereira, M., Rodriguez-Torres, S., Schmidt, F., Shan, H., Viel, M., Villaescusa-Navarro, F., MNRAS 2017, 467, 3024.

77. *2dFLenS and KiDS: Determining source redshift distributions with cross-correlations*

Johnson, A., Blake, C., Amon, A. Erben, T., Glazebrook, K., Harnois-Deraps, J., **Heymans, C.,** Hildebrandt, H., Joudaki, S., Klaes, D., Kuijken, K., Lidman, C., Marin, F., McFarland, J., Morrison, C., Parkinson, D., Poole, G., Radovich, M., Wolf, C., MNRAS 2017, 465, 4118.

78. *The 2-degree Field Lensing Survey: photometric redshifts from a large new training sample to r<19.5*

    Wolf, C., Johnson, A., Bilicki, M., Blake, C., Amon, A. Erben, T., Glazebrook, K., **Heymans, C.,** Hildebrandt, H., Joudaki, S., Klaes, D., Kuijken, K., Lidman, C., Marin, F., Parkinson, D., Poole, G., MNRAS 2017, 466, 1582.

79. *First observational test of Verlinde's theory of Emergent Gravity using Weak Gravitational Lensing*

    Brouwer, M., Visser, M., Dvornik, A., Hoekstra, H., Kuijken, K., Valentijn, E., Bilicki, M., Blake, C., Brough, S., Buddelmeijer, H., Erben, T., **Heymans, C.,** Hildebrandt, H., Holwerda, B., Hopkins, A., Klaes, D., Liske, J., Loveday, J., McFarland, J., Nakajima, R., Sifon, C., Taylor, E., MNRAS 2017, 466, 2547.

80. *Revisiting CFHTLenS cosmic shear: Optimal E/B mode decomposition using COSEBIs and compressed COSEBIs*

    Asgari, M., **Heymans, C.,** Blake, C., Harnois-Deraps, J., Schneider, P., Van-Waerbeke, L. MNRAS 2017, 464, 1676.

81. *CFHTLenS revisited: assessing concordance with Planck including astrophysical systematics*

    Joudaki, S., Blake, C., **Heymans, C.,** Choi, A., Harnois-Deraps, J., Hildebrandt, H., Joachimi, B., Johnson, A., Mead, A., Parkinson, D., Viola, M., Van-Waerbeke, L., MNRAS 2017, 465, 2033.

82. *Testing the spherical evolution of cosmic voids*

    Demchenko, V.., Cai, Y., **Heymans, C.,** Peacock, J., MNRAS 2016, 463, 512.

83. *The 2-degree Field Lensing Survey: design and clustering measurements*

    Blake, C., Amon, A., Childress, M., Erben, T., Glazebrook, K., Harnois-Deraps, J., **Heymans, C.,** Hildebrandt, H., Hinton, S., Janssens, S., Johnson, A., Joudaki, S., Klaes, D., Kuijken, K., Lidman, C., Marin, F., Parkinson, D., Poole, G., Wolf, C., MNRAS 2016, 462, 4240.

84. *RCSLenS: On Verifying Photometric Redshift Distributions Using Angular Cross-Correlations with Spectropscopic Galaxy Surveys*

    Choi, A., **Heymans, C.,** Blake, C., Hildebrandt, H., Duncan, C., Erben, T., Nakajima, R., Van-Waerbeke, L., Viola, M., MNRAS 2016, 463, 3737.

85. *RCSLenS: The Red Cluster Sequence Lensing Survey*

    Hildebrandt, H., Choi, A., **Heymans, C.,** Blake, C., Erben, T., Nakajima, R., Van-Waerbeke, L., Viola, M., Buddendiek., A., Harnois-Deraps, J., Hojjati, A., Joachimi., B., Joudaki, S., Kitching, T., Wolf, C., Gwyn, S., Kuijken, K., Shiekhbahaee, Z., Tudorica, A., Yee., H., MNRAS 2016, 463, 635.

86. *CFHTLenS and RCSLenS Cross-correlation with Planck Lensing Detected in Fourier and Configuration Space*

    Harnois-Deraps, J., Troster, T., Hojjati, A., Van-Waerbeke, L., Asgari., M., Choi, A., Erben, T., **Heymans, C.,** Hildebrandt, H., Kitching, T., Nakajima, R., Viola, Arnouts, S., Coupon, J., Moutard., T., MNRAS 2016, 460, 434.

87. *The stellar-to-halo mass relation from 100 square degrees of KiDS weak lensing data*

    van Uitert, E., Cacciato, M., Hoekstra, H., Brouwer, M., Sifon, C., Viola, M., Baldry, I., Bland-Hawthorn, J., Brough, S., Brown, M., Choi, A., Driver, S., Erben, T., **Heymans, C.,** Hildebrandt, H., Joachimi, B.,Kuijken, K., Liske, J., Loveday, J., McFarland, J., Miller, L., Nakajima, R., Peacock, J., Radovich., M., Robotham., A., Schneider, P., Sikkema, G., Taylor, E., Verdoes Klijn, MNRAS 2016, 459, 3251.

88. *Dependence of GAMA galaxy halo masses on the cosmic web environment from 100 square degrees of KiDS weak lensing data*

Brouwer, M., Cacciato, M., Dvornik, A., Eardley, L., **Heymans, C.,** Hoekstra, H., Kuijken, K., McNaught-Roberts, T.., Sifon, C., Viola, M., Alpaslan, M., Bilicki, M., Bland-Hawthorn, J., Brough, S., Choi, A., Driver, S., Erben, T., Grado, A., Hildebrandt, H., Holwerda, B., Hopkins, A., de Jong, J., Liske, J., McFarland, J., Nakajima, R., Norberg, P., Peacock, J., Radovich., M., Robotham., A., Schneider, P., Sikkema, G., van Uitert, E., Verdoes Klijn, MNRAS 2016, 462, 4451.

89. *Accurate halo-model matter power spectra with dark energy, massive neutrinos and modified gravity forces*

Mead, A., **Heymans, C.,** Lonbrisier, L, Peacock, J., Steele, O., Winther, H., MNRAS 2016, 459, 1469

90. *Cluster mass profile reconstruction with size and flux magnification on the HST STAGES survey*

Duncan, C., **Heymans, C.,** Joachim, B., Heavens, A., MNRAS 2016, 457, 764.

91. *RCSLenS: Testing gravitational physics through the cross-correlation of weak lensing and large-scale structure*

Blake, C., Joudaki, S., **Heymans, C**., Choi, A., Erben, T., Harnois-Deraps, J., Hildebrandt, H., Joachimi, B., Nakajima, R., van Waerbeke, L., Viola, M., MNRAS 2016, 456, 2806.

92. *RCSLenS: A new estimator for large-scale galaxy-matter correlations*

Buddendiek, A., Schneider, P., Hildebrandt, H., Blake, C., Choi, A., Erben, T., **Heymans, C.,** Viola, M., Nakajima, R., Harnois-Deraps, J., MNRAS 2016, 456, 3886.

93. *Galaxy and Mass Assembly (GAMA) Redshift Space Distortions from the Clipped Galaxy Field*

Simpson, F., Blake, C., Peacock, J., A. Baldry, I., Bland-Hawthorn, J., Heavens, A., **Heymans, C**., Loveday, J., Norberg, P., PhysRevD, 93, 3525.

94. *Enhancing the Cosmic Shear Power Spectrum*

Simpson, F., Harnois-Déraps, J., **Heymans, C.,** Jimenez, R.,Verde, L., MNRAS 2016, 456, 278.

95. *Viewpoint: Sky Survey Casts Light on the Dark Universe*

Heymans, C., 2015, APS, Physics, 8, 74.

96. *An accurate halo model for fitting non-linear cosmological power spectra and baryonic feedback models*

Mead, A., Peacock, J. **Heymans, C.,** Joudaki, S., Heavens, A., MNRAS 2015, 454, 1958.

97. *Testing Gravity with EG: mapping theory onto observations*

Leonard, C., D., Ferreira, P., **Heymans, C.,** JCAP 2015, 12, 051L.

98. *Gravitational Lensing Analysis of the Kilo Degree Survey*

Kuijken, K., **Heymans, C.,** Hildebrandt, H., Nakajima, R., Erben, T., de Jong, J., Viola, M., Choi, A., Hoekstra, H., Miller, L., van Uitert, E., Amon, A., Blake, C., Brouwer, M., Buddendiek, A., Fenech Conti, I., Eriksen, M., Grado, A., Harnois-Déraps, J, Helmich, E., Herbonnet, R., Irisarri, N., Kitching, T., Klaes, D., Labarbera, F., Napolitano, N., Radovich, M., Schneider, P., Sifón, C., Sikkema, G., Simon, P., Tudorica, A., Valentijn, E., Verdoes Kleijn, G., van Waerbeke, L., MNRAS 2015, 454, 3500.

99. The masses of satellites in GAMA galaxy groups from 100 square degrees of KiDS weak lensing data

Sifón, C., Cacciato, M., Hoekstra, H., Brouwer, M., van Uitert, E., Viola, M., Baldry, I., Brough, S., Brown, M., Choi, A., Driver, S., P. Erben, T., Grado, A., **Heymans, C.**, Hildebrandt, H., Joachimi, B., de Jong, J., Kuijken, K., McFarland, J., Miller, L., Nakajima, R., Napolitano, N., Norberg, P., Robotham, A., Schneider, P., Verdoes Kleijn, G.,, 2015, MNRAS, 454, 3938

100. Dark matter halo properties of GAMA galaxy groups from 100 square degrees of KiDS weak lensing data

Viola, M. Cacciato, M. Brouwer, M. Kuijken, K. Hoekstra, H. Norberg, P. Robotham, A. S. G. van Uitert, E. Alpaslan, M. Baldry, I. K. Choi, A. de Jong, J. T. A. Driver, S. P. Erben, T. Grado, A. Graham, Alister W., **Heymans, C**., Hildebrandt, H., Hopkins, A., Irisarri, N., Joachimi, B., Loveday, J., Miller, L., Nakajima, R., Schneider, P., Sifón, C., Verdoes Kleijn, G., 2015, MNRAS, 452, 3529.

101. The first and second data releases of the Kilo-Degree Survey

de Jong, J., Verdoes Kleijn, G., Boxhoorn, D., R. Buddelmeijer, H., Capaccioli, M., Getman, F., Grado, A., Helmich, E., Huang, Z., Irisarri, N., Kuijken, K., LaBarbera, F., McFarland, J., P. Napolitano, N., R. Radovich, M., Sikkema, G., Valentijn, E., Begeman, K., Brescia, M., Cavuoti, S., Choi, A., Cordes, O., Covone, G., Dall'Ora, M., Hildebrandt, H., Longo, G., Nakajima, R., Paolillo, M., Puddu, E., Rifatto, A., Tortora, C., van Uitert, E., Buddendiek, A., Harnois-Déraps, J., Erben, T., Eriksen, M., **Heymans, C.**, Hoekstra, H., Joachimi, B., Kitching, T., Klaes, D., Koopmans, L., Köhlinger, F., Roy, N., Sifon, C., Schneider, P., Sutherland, W., Viola, M., Vriend, W., A&A 2015, 528A, 62D

102. CFHTLenS: Weak lensing constraints on the ellipticity of galaxy-scale matter haloes and the galaxy-halo misalignment

Schrabback, T., Hilbert, S., Hoekstra, H., Simon, P., van Uitert, E., Erben, T., **.,** Hildebrandt, H., Kitching, T., Mellier, Y., Miller, L., Van Waerbeke, L., Bett, P., Coupon, J., Fu, L., Hudson, M., J. Joachimi, B., Kilbinger, M., Kuijken, K., MNRAS 2015, 454, 1432.

103. First Measurement of the Cross-Correlation of CMB Lensing and Galaxy Lensing

Hand, N., Leauthaud, A., Das, S., Sherwin, B., Addison, G., Bond, R., Calabrese, E., Charbonnier, A., Devline, M., Dunklet, J., Erben, T., Hajian, A., Halbern, M., Harnois-Deraps, J., **Heymans, C.**, Hildebrandt, H., Hincks, A., Kneib, J., Kosowsky, A., Makler, M., Miller, L., Moodley, K., Moareas, B., Niemack, M., Page, L., Partridge, B., Sehgal, N., Shan, H., Sievers, J., Spergel, D., Staggs, S., Switzer, E., Taylor, J., Van Waerbeke, L, Wollack., E., 2015, PhyRevD, 91, 2001.

104. Ultra-deep catalog of X-ray groups in the Extended Chandra Deep Field South

Finoguenov, A. Tanaka, M. Cooper, M. Allevato, V. Cappelluti, N. Choi, A. **Heymans, C.** Bauer, F. E. Ziparo, F. Ranalli, P. Silverman, J. Brandt, W. N. Xue, Y. Q. Mulchaey, J. Howes, L. Schmid, C. Wilman, D. Comastri, A. Hasinger, G. Mainieri, V. Luo, B. Tozzi, P. Rosati, P. Capak, P. Popesso, P., 2015, A&A, 576, 130.

105. Galaxy And Mass Assembly (GAMA): the galaxy luminosity function within the cosmic web

Eardley, E. Peacock, J. A. McNaught-Roberts, T. **Heymans, C.** Norberg, P. Alpaslan, M. Baldry, I. Bland-Hawthorn, J. Brough, S. Cluver, M. E. Driver, S. P. Farrow, D. J. Liske, J. Loveday, J. Robotham, A. S. G., 2015, MNRAS, 448, 3665.

106. The galaxy-halo connection from a joint lensing, clustering and abundance analysis in the CFHTLenS/VIPERS field

Coupon, J. Arnouts, S. van Waerbeke, L. Moutard, T. Ilbert, O. van Uitert, E. Erben, T. Garilli, B. Guzzo, L. **Heymans, C.** Hildebrandt, H. Hoekstra, H. Kilbinger, M. Kitching, T. Mellier, Y. Miller, L. Scodeggio, M. Bonnett, C. Branchini, E. Davidzon, I. De Lucia, G. Fritz, A. Fu, L. Hudelot, P. Hudson, M. J. Kuijken, K. Leauthaud, A. Le Fèvre, O. McCracken, H. J. Moscardini, L. Rowe, B. T. P. Schrabback, T. Semboloni, E. Velander, M. 2015, MNRAS, 449, 1352.

107.Baryons, Neutrinos, Feedback and Weak Gravitaitonal Lensing

Harnois-Deraps, J., Van Waerbeke, L., Viola, M., **Heymans, C.**, 2015, MNRAS,450,1212.

108.Image Analysis for Cosmology: Shape Measurement Challenge: Review and Results form the Mapping Dark Matter Challenge

Kitching, T., Rhodes, J., **Heymans, C.** Massey, R., Liu, Q., Cobzarenco, M., Cragin, B., Hassaine, A., Kirkby, D., Lok, E., Margala, D., Moser, J., O'Leary, M., Pires, A., Yurgenson, S., 2015, Astronomy and Computing, 10, 9.

109.CFHTLenS: Weak lensing calibrated scaling relations for low mass clusters of galaxies

Kettula, K., Giodini, S., van Uitert, E., Hoekstra, H., Finoguenov, A., Lerchster, M., Erben, T., **Heymans, C.**, Hildebrandt, H., Kitching, T., Mahdavi, A., Mellier, Y., Miller, L., Mirkazemi, M., Van Waerbeke, L., Coupon, J., Egami, E., Fu, L., Hudson, M., Kneib, J., P., Kuijken, K., McCracken, H., J., Pereira, M., Rowe, B., Schrabback, T., Tanaka, M., Velander, M., 2015, MNRAS,451,1460.

110.CFHTLenS: a Gaussian likelihood is a sufficient approximation for a cosmological analysis of third-order cosmic shear statistics

Simon, P., Semboloni, E., Van Waerbeke, L., Hoekstra, H., Erben, T., Fu, L., **Heymans, C.**, Hildebrandt, H., Kilbinger, M., Kitching, T., Miller, L., Schrabback, T., 2015, MNRAS, 449, 1505.

111.CFHTLenS: A weak lensing shear analysis of the 3D-Matched-Filter Galaxy Clusters

Ford, J., Van Waerbeke, L., Milkeraitis, M., Laigle, C., Hildebrandt, H., L. Erben, T., **Heymans, C.**, Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Choi, A., Coupon, J., Fu, L., Hudson, M., Kuijken, K., Robertson, N., Rowe, B., Schrabback, T., Velander, M., 2015, MNRAS, 447,1304.

112.CFHTLenS: Co-evolution of galaxies and their dark matter haloes

Hudson, M., Gillis, B., Erben, T., Coupon, J., Hildebrandt, H., **Heymans, C.**, Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Van Waerbeke, L., Bonnett, C., Fu, L., Kuijken, K.,Hilbert, S., Rowe, B., Schrabback, T., Semboloni, E., Velander, M., 2015, MNRAS, 447, 298.

113.On the complementarity of galaxy clustering with cosmic shear and flux magnification

Duncan, C., Joachimi, B., Heavens, A., **Heymans, C.**, Hildebrandt, H., 2014, MNRAS, 437, 2471.

114.The Third Gravitational Lensing Accuracy Testing (GREAT3) Challenge Handbook

Mandelbaum, R., et al (31 authors including **Heymans, C.**), ApJS, 212, 5, 2014.

115.CFHTLenS: The relation between galaxy dark matter haloes and baryons from weak gravitational lensing

Velander, M., van Uitert, E., Hoekstra, H., Coupon, J., Erben, T., **Heymans, C.**, Hildebrandt, H., Kitching, T., Mellier, Y., Miller, L., Van Waerbeke, L. Bonnett, C., Fu, L., Giodini, S., Hudson, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., 2014, MNRAS, 437, 2111.

116.3D cosmic shear: cosmology from CFHTLenS

Kitching, T., Heavens, A., Alsing, J., Erben, T., **Heymans, C.**, Hildebrandt, H., Hoekstra, H., Jaffe, A., Mellier, Y., Miller, L., Van Waerbeke, L. Benjamin, J., Coupon, J., Bonnett, Fu, L., Hudson, M., Kilbinger, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., Velander, M., 2014, MNRAS, 442, 1326.

117.CFHTLenS: cosmological constraints from a combination of cosmic shear two-point and three-point correlations

Fu, L., Kilbinger, M., Erben, T., **Heymans, C.**, Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Semboloni, E., Simon, P., Van Waerbeke, L. Coupon, J., Harnois-Deraps, J., Hudson, M., Kuijken, K., Rowe, B., Schrabback, T., Vafaei, S., Velander, M., 2014, MNRAS, 441, 2725.

118.CFHTLenS tomographic weak lensing cosmological parameter constraints: Mitigating the impact of intrinsic galaxy alignments

Heymans, C., Grocutt, E., Heavens, A. Kilbinger, M., Kitching, T., Simpson, F., Benjamin, J., Erben, T., Hildebrandt, H., Hoekstra, H., Mellier, Y., Miller, L., Van Waerbeke, L. Brown, M., Coupon, J., Fu, L., Harnois-Deraps, J., Hudson, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., Vafaei, S., Velander, M., 2013, MNRAS, 432, 2433.

119.CFHTLenS: Mapping the Large Scale Structure with Gravitational Lensing

Van Waerbeke, L. Benjamin, J., Erben, T., **Heymans, C.**, Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Coupon, J., Fu, L., Harnois-Deraps, J., Hudson, M., Kilbinger, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., Vafaei, S., van Uitert, E., Velander, M., 2013, MNRAS, 433, 3373.

120.CFHTLenS: The Canada-France-Hawaii Telescope Lensing Survey - Imaging Data and Catalogue Products

Erben, T., Hildebrandt, H., Miller, L., Van Waerbeke., L., **Heymans, C.**, Hoekstra, H., Kitching, T., Mellier, Y., Benjamin, J., Blake, C., Bonnett, C., Cordes, O., Coupon, J., Fu, L., Gavazzi, R., Gillis, B., Grocutt., E., Gwyn, S., Holhjem, K., Hudson, M., Kilbinger, M., Kuijken, K., Milkeraitis, M., Rowe, B., Schrabback, T., Semboloni, E., Simon, P., Smit, M., Toader, O., Vafaei, S., van Uitert, E., Velander, M., 2013, MNRAS, 433, 2545.

121.Bayesian Galaxy Shape Measurement for Weak Lensing Surveys - III. Application to the Canada-France-Hawaii Telescope Lensing Survey

Miller, L., **Heymans, C.**, Kitching, T., Van Waerbeke, L. Erben, T., Hildebrandt, H., Hoekstra, H., Mellier, Y., Rowe, B., Coupon, J., Dietrich, J., Fu, L., Harnois-Deraps, J., Hudson, M., Kilbinger, M., Kuijken, K., Schrabback, T., Semboloni, E., Vafaei, S., Velander, M.., 2013, MNRAS, 429, 2858.

122.CFHTLenS: Testing the laws of gravity with tomographic weak lensing and redshift-space distortions

Simpson, F., **Heymans, C.**, Parkinson, D., Blake, C., Kilbinger, M., Benjamin, J., Erben, T., Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Van Waerbeke, L. Coupon, J., Fu, L., Harnois-Deraps, J., Hudson, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., Vafaei, S., Velander, M., 2013, MNRAS, 429, 2249.

123.CFHTLenS tomographic weak lensing: Quantifying accurate redshift distributions

Benjamin, J., Van Waerbeke, L. **Heymans, C.**, Kilbinger, M., Erben, T., Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Simpson, F., Coupon, J., Fu, L., Harnois-Deraps, J., Hudson, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., Vafaei, S., Velander, M., 2013, MNRAS, 431, 1547.

124.CFHTLenS: combined probe cosmological model comparison using 2D weak gravitational lensing

Kilbinger, M., Fu, L., **Heymans, C.**, Simpson, F., Benjamin, J., Erben, T., Harnois-Deraps, J., Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Van Waerbeke, L., Benabed, K., Bonnett, C., Coupon, J., Hudson, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., Vafaei, S., Velander, M., 2013, MNRAS, 430, 2200.

125.CFHTLenS: higher order galaxy-mass correlations probed by galaxy-galaxy-galaxy lensing

Simon, P., Erben, T., **Heymans, C.**, Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Van Waerbeke, L., Bonnett, C., Coupon, J., Fu, L., Hudson, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., Velander, M., 2013, MNRAS, 430, 2476.

126.CFHTLenS: The Environmental Dependence of Galaxy Halo Masses from Weak Lensing

Gillis, B., Hudson, M., Erben, T., **Heymans, C.**, Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Van Waerbeke, L., Bonnett, C., Coupon, J., Fu, L., Kuijken, K.,Hilbert, S., Rowe, B., Schrabback, T., Semboloni, E., Velander, M., 2013, MNRAS, 431, 1439.

127.The Kilo-Degree Survey

de Jong, J., et al (58 authors including **Heymans, C.**), Msngr, 154, 44, 2013.

128.Clipping the Cosmos II: Cosmological information from non-linear scales

Simpson, F., Heavens, A., **Heymans, C.**, 2013, PhysRevD, 88, 3510.

129.Flexion measurement in simulations of Hubble Space Telescope data

Rowe, B., Bacon, D., Massey, R., **Heymans, C.**, Haussler, B., Taylor, A., Rhodes, J., Mellier, Y., 2013, MNRAS, 435, 822.

130.Galaxy and Mass Assembly (GAMA): spectroscopic analysis

Hopkins, A., et al (82 authors including **Heymans, C.**) 2013, MNRAS, 430, 2047.

131.Image Analysis for Cosmology: Results from the GREAT10 Star Challenge

Kitching, T., Rowe, B., Gill, M., **Heymans, C.** Massey, R., Witherick, D., Courbin, F., Georgatzis, K., Gentile, M., Gruen, D., Kilbinger, M., Li, G., Mariglis, A., Meylan, G., Storkey,, A, Xin, B., 2013, ApJS, 205, 12.

132.AGM galaxies at redshift z~0.7: peculiar or not?

Boehm, A., Wisotzki, L., Bell, E., Jahnke, K., Wolf, C., Bacon, Barden, M., Gray, Hoeppe, G., Joegee, S., McIntoshh, D., Peng, C., Robaina, A., M., D., Balogh, M., Barazza, F., Caldwell, J., **Heymans, C.**, Hauessler, B., Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K. Sanchez, S., Taylor, A.,, Zheng, X., 2013, A&A, 549, 46.

133.Cosmology and fundamental physics with the Euclid satellite

Amendola, L., et al (63 authors including **Heymans, C.**), 2013, LRR, 16, 6.

134.CFHTLenS: The Canada-France-Hawaii Telescope Lensing Survey

Heymans, C., Van Waerbeke, L. Miller, L., Erben, T., Hildebrandt, H., Hoekstra, H., Kitching, T., Mellier, Y., Simon, P., Bonnett, C., Coupon, J., Fu, L., Harnois-Deraps, J., Hudson, M., Kilbinger, M., Kuijken, K., Rowe, B., Schrabback, T., Semboloni, E., van Uitert, E., Vafaei, S., Velander, M.., 2012, MNRAS, 427, 146.

135.CFHTLenS: Improving the quality of photometric redshifts with precision photometry

Hildebrandt, H., Erben, T., Kuijken, K., Van Waerbeke, L., **Heymans, C.**, Coupon, J., Benjamin, J., Bonnett, C., Fu, L., Hoekstra, H., Kitching, T., Mellier, Y., Miller, L., Velander, M., Hudson, M., Rowe, B.,Schrabback, T., Semboloni, E., Benitez, N., 2012, MNRAS 421, 2355

136.The impact of high spatial frequency atmospheric distortions on weak lensing measurements.

Heymans, C., Rowe, B., Hoekstra, H., Miller, L., Erben, T., Kitching, T., Van Waerbeke, L., 2012, MNRAS 421, 381

137.Spatial density mapping of the STAGES Abell A901/2 super-cluster field with 3-D lensing

Simon, P., **Heymans, C.**, Schrabback T., Taylor, A., Gray, M., van Waerbeke, L., Wolf, C., Bacon, D., Balogh, M., Barazza, F., Barden, M., Bell, E., Boehm, A., Caldwell, J., Hauessler, B., Jahnke, K., Jogee, S., Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K. Peng, C., Sanchez, S., Wisotzki, L., Zheng, X., 2012, MNRAS, 419, 998.

138.*Image analysis for cosmology; results from the GREAT10 Galaxy Challenge*

Kitching, T, Balan, S., Bridle, S., Cantale, N., Courbin, F., Eifler, T., Gentile, M., Gill, M., Harmeling, S., **Heymans, C.**, Hirsch, M., Honscheid, K., Kacprzak, T., Kirkby, D., Margala, D., Massey, R., Melchior, P., Nurbaeva, G., Patton, K., Rhodes, J., Rowe, B., Taylor, A., Tewes, M., Viola, M., Witherick, D., Voigt, L., Young, J., Zuntz., J., 2012, MNRAS, 423, 3163.

139.Clipping the Cosmos: The Bias and Bispectrum of Large Scale Structure

Simpson, F., James, B., Heavens, A., **Heymans, C.**, 2011, PhysRevL, 107, 1301.

140.*Gravitational Lensing Accuracy Testing 2010 (GREAT10) Challenge Handbook.*

Kitching, T, Amara, A., Gill, M., Harmeling, S., **Heymans, C.**, Massey, R., Rowe, B., Schrabback, T., Voigt, L, Balan, S., Bernstein, G., Bethge, M., Bridle, S., Courbin, F., Gentile, M., Heavens, A., Hirsch, M., Hosseini, R., Kiessling, A., Kirk, D., Kuijken, K., Mandelbaum, R., Moghaddam, B., Nurbaeva, G., Paulin-Henriksson, S., Rassat, A., Rhodes, J., Scholkopf, B., Shawe-Taylor, J., Shmakova, M., Taylor, A., Velander, M., Van Waerbeke, L., Witherick, D., Wittman, D., 2011, Annals of Applied Statistics, Vol. 5, No. 3., 2231-2263.

141.3D- Matched-Filter Galaxy Cluster Finder I: Selection Function and CFHTLS Deep Clusters

Milkeraitis, M., Van Waerbeke, L., **Heymans, C.**, Hildebrandt, H., Dietrich, J., Erben, T., 2010, MNRAS 406, 773.

142.Measuring the dark matter ellipticity of Abell 901/902 using Particle Based Lensing

Deb, S., Goldberg, D., **Heymans, C.**, Morandi, A., 2010, ApJ, 721, 124.

143.*Results of the GREAT08 Challenge: An image analysis competition for cosmological lensing.*

Bridle, S., Balan, S., Bethge, M., Gentile, M., Harmeling, S., **Heymans, C.**, Hirsch, M., Hosseini, R., Jarvis, M., Kirk, D., Kitching, T., Kuijken, K., Lewis, A., Paulin-Henriksson, S., Scholkopf, B., Velander, M., Voigt, L., Witherick, D., Amara, A., Bernstein, G., Courbin, F., Gill, M., Heavens, A., Mandelbaum, R., Massey, R., Moghaddam, B., Rassat, A., Refregier, A., Rhodes, J., Schrabback, Shawe-Taylor, J., Shmakova, M., Van Waerbeke, L., Wittman, D., 2010, MNRAS 405, 2044.

144.*A Weak Lensing Study of X-ray Groups in the COSMOS survey: Form and Evolution of the Mass-Luminosity Relation*

Leauthaud, A., Finoguenov, A., Kneib, J-P., Taylor, J., Massey, R., Rhodes, J., Ilbert, O., Bundy, K., Tinker, J., George, M., Capak, P., Koekemoer, A., Johnston, D., Zhang, Y., Cappelluti, N., Ellis, R., Elvis, M., **Heymans, C.**, Le Fevre, O., Lilly, S., McCraken, H., Mellier, Y., Refregier, A., Salvato, M., Scoville, N., Smoot, G., Tanaka, M., Van Waerbeke, L., Wolk, M., 2010, ApJ, 709, 97L.

145.*Breaking the Degeneracy: Optimal Use of Three-point Weak Lensing statistics.*

Vafaei, S., Lu, T., Van Waerbeke, L., Semboloni, E., **Heymans, C.**, Pen, U-L, 2010, APh, 32, 340.

146.*Handbook for the GREAT08 Challenge: An image analysis competition for cosmological lensing.*

Bridle, S., Shawe-Taylor, J., Amara, A., Appelgate, D., Balan, S., Berge, J., Bernstein, G., Dahle, H., Erben, T., Gill, M., Heavens, A., **Heymans, C.**, High, W., Hoekstra, H., Jarvis, M., Kitching, T., Kneib, J.-P., Kuijken, K., Lagatutta, D., Mandelbaum, R., Massey, R., Mellier, Y., Moghaddam, B., Moudden, Y., Nakajima, R., Paulin-Henriksson, S., Pires, S., Rassat, A., Refregier, A., Rhodes, J., Schrabback, T., Semboloni, E., Shmakova, M., Van Waerbeke, L., Voigt, L., Wittman, D., 2009, Annals of Applied Statistics Vol 3, No. 1, 6-37.

147.*Cosmology from a Redshift Survey of 200 Million Galaxies.*

Eisenstein, D., Bagger, J., Glazebrook, K., **Heymans, C**., Hinshaw, G., Kruk, J., Larson, D., Hirata, C., Moos, W., Moseley, H., Weiland, J., Verde, L., 2009, Astro2010: The Astronomy and Astrophysics Decadal Survey, Science White Paper no. 70.

148. *Sersiclets - A Matched Filter generalisation of Shapelets for Weak Lensing Studies.*
Ngan, W., Van Waerbeke, L., Mahdavi, A., **Heymans, C.**, Hoekstra, H., 2009, MNRAS, 396,1211.

149. *Sources of contamination to weak lensing tomography: redshift-dependent shear measurement bias.*
Semboloni, E., Tereno, I., Van Waerbeke, L., **Heymans, C.**, 2009, MNRAS 397, 608.

150. *Relating basic properties of bright early-type dwarf galaxies to their location in Abel 901/902.*
Barazza, F., Wolf, C. Gray, M., Jogee, S., Balogh, M., McIntosh, D., Bacon, D., Barden, M., Bell, E., Boehm, A., Caldwell, J., Haussler, B., **Heymans, C.**, Jahnke, K., van Kampen, E., Marinova, I., Meisenheimer, K., Peng, C., Sanchez, S., Taylor, A., Wisotzki, L, , 2009, A&A, 508, 665.

151. *Less Than 10 Percent of Star Formation in z~0.6 Massive Galaxies is Triggered by Major Interactions.*
Robaina, A., Bell, E., Skelton, R., McIntosh, D., Somerville, R., Zheng, X., Rix, H-W., Bacon, D., Balogh, M., Barazza, F., Barden, M., Boehm, A., Caldwell, J., Gallazzi, A., Gray, M., Haussler, B., **Heymans, C.**, Jahnke, K., Jogee, S., van Kampen, E., Lane, K., Meisenheimer, K., Papovich, C., Peng, C., Sanchez, S., Skibba, R., Taylor, A., Wisotzki, L, Wolf, C., 2009, ApJ, 704, 324.

152. *Barred Galaxies in the Abell 901/2 supercluster with STAGES.*
Marinova, I., Jogee, S., Heiderman, A., Barazza, F., Gray, M., Barden, M., Wolf, C., Peng, C., Bacon, D., Balogh, M., Bell, E., Boehm, A., Caldwell, J., Haussler, B., **Heymans, C.**, Jahnke, K., van Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K., Sanchez, S., Somerville, R., Taylor, A., Wisotzki, L, Zheng, X., 2009, ApJ 698, 1639.

153. *Interacting galaxies in the A901/902 Supercluster with STAGES.*
Heiderman, A., Jogee, S., Marinova, I., van Kampen, E., Barden, M., Peng, C., **Heymans, C.**, Gray, M., Bell, E., Bacon, D., Balogh, M., Barazza, F., Boehm, A., Caldwell, J., Haussler, B., **J**ahnke, K., Lane, K., McIntosh, D., Meisenheimer, K., Sanchez, S., Somerville, R., Taylor, A., Wisotzki, L, Wolf, C., Zheng, X., 2009, ApJ, 705, 1433.

154. *History of Galaxy Interactions and their impact on star formation over the last 7 Gyr from GEMS.*
Jogee, S., Miller, S., Penner, K., Skelton, R., Conselice, C., Somerville, R., Bell, E., Zheng, X., Rix, H.-W., Robaina, A., Barazza, F., Barden, M., Borch, A., Beckwith, S., Caldwell, J., Peng, C., **Heymans, C.**, McIntosh, D., Haussler, B., **J**ahnke, K., Meisenheimer, K., Sanchez, S., Wisotzki, L, Wolf, C., Papovich, C., 2009, ApJ, 697, 1971.

155. *Obscured star formation in intermediate-density environments: A Spitzer study of the Abell 901/902 supercluster.*
Gallazzi, A., Bell, E., Wolf, C., Gray, M., Papovich, C., Barden, M., Leng, C., Meisenheimer, K., **Heymans, C.**, van Kampen, E., Gilmour, R., Balogh, M., McIntosh, D., Bacon, B., Boehm, A., Caldwell, J., Haussler, B., Jahnke, K., Jogee, S., Lane, K., Robaina, A., Sanchez, S., Taylor, A., Wisotzki, L, Zheng, X., 2009, ApJ, 690, 1883.

156. *The STAGES view of red spirals and dusty red galaxies: Mass dependent quenching of star-formation in cluster infall*
Wolf, C., Aragon-Salamanca, A., Balogh, M., Barden, M., Bell, E., Gray, M., Peng, C., Bacon, D., Barazza, F., Boehm, A., Caldwell, J., Gallazzi, A. Haussler, B., **Heymans, C.**, Jahnke, K., Jogee, S., van Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K., Papovich, C., Sanchez, S., Taylor, A., Wisotzki, L, Zheng, X., 2009, MNRAS 393, 1302.

157.*STAGES: the Space Telescope A901/2 Galaxy Evolution Survey.*

Gray, M., Wolf., C., Barden, M., Peng, C., Haussler, B., Bell, E., McIntosh, D., Guo, Y., Caldwell, J., Bacon, D., Balogh, M., Barazza, F., Boehm, A., **Heymans, C.**, Jahnke, K., Jogee, S., van Kampen, E., Lane, K., Meisenheimer, K., Sanchez, S., Taylor, A., Wisotzki, L, Zheng, X., Beswick, D., Saikia, D., Gilmour, R., Johnson, B., Papovich, C., 2009, MNRAS 393, 1275.

158.*The dark matter environment of the Abell 901/902 supercluster: a weak lensing analysis of the HST STAGES survey.*

Heymans, C., Gray, M., Peng, C., Van Waerbeke, L., Bell, E., Wolf, C., Bacon, D., Balogh, M., Barden, M., Barazza, F., Boehm, A., Caldwell, J., Haeussler, B., Jahnke, K., Jogee, S., van Kampen, E., Koposov, S., Lane, K., McIntosh, D., Meisenheimer, K, Mellier, Y., Sanchez, S., Taylor, A., Wisotzki, L., Zheng, X., 2008, MNRAS 385, 1431.

159.*Bayesian Galaxy Shape Measurement for Weak Lensing Surveys II. Application to Simulations.*

Kitching, T., Miller, L., **Heymans, C.**, Van Waerbeke, L., Heavens, A., 2008, MNRAS, 390, 149.

160.*Sources of contamination to weak lensing three point statistics: constraints from N-body simulations.*

Semboloni, E., **Heymans, C.**, Van Waerbeke, L., Schneider, P. 2008, MNRAS 388, 991.

161.*Very weak lensing in the CFHTLS Wide: Cosmology from cosmic shear in the linear regime.*

Fu, L., Semboloni, E., Hoekstra, H., Kilbinger, M.,Van Waerbeke, L., Tereno, I., Mellier, Y., **Heymans, C.**, Coupon, J., Benabed, K., Benjamin, J., Bertin, E., Dore, O., Hudson, M., Ilbert, O., Maoli, R., Marmo, C., McCracken, H., Menard, B., 2008, A&A 479, 9.

162.*Realistic simulations of gravitational lensing by galaxy clusters: extracting arc parameters from mock images.*

Meneghetti, M., Melchior, P., Grazian, A., De Lucia, G., Dolag, K., Bartelmann, M., **Heymans, C.**, Moscadini, L., Radovich, M., 2008 A&A, 482, 403.

163.*An Explanation for the Observed Weak Size Evolution of Disk Galaxies*

Somerville, R., Barden, M., Rix, H.-W., S., Bell, E. F., Borch, A., A., Beckwith, Haeussler, B., **Heymans, C.**, Jogee, S., McIntosh, D., Meisenheimer, K., Peng, C., Sanchez, S., Wisotzki, L., Wolf, C., 2008, ApJ 672, 776.

164.GEMS Survey Data and Catalogue

Caldwell, J., McIntosh, D., Rix, H.-W., Barden, M., Bell, E. F., Beckwith, S., Borch, A., Haeussler, B., **Heymans, C.**, Jahnke, K., Jogee, S., Meisenheimer, K., Peng, C., Sanchez, S. F., Somerville, R.,Wisotzki, L., Wolf, C., 2008, ApJS 174, 136.

165.*Bayesian Galaxy Shape Measurement for Weak Lensing Surveys -I. Methodology and a Fast Fitting Algorithm*

Miller, L., Kitching, T., **Heymans, C.**, Heavens, A., Van Waerbeke, 2007, MNRAS 382, 315.

166.*Cosmological constraints from the 100 square degree Weak Lensing Survey*

Benjamin, J., **Heymans, C.**, Semboloni, E., Van Waerbeke, L., Hoekstra, H., Erben, T., Gladders, M., Hetterscheidt, M., Mellier, Y., Yee, H., 2007, MNRAS 381, 702.

167.*GEMS: Galaxy fitting catalogues and testing parametric galaxy fitting codes*

Haeussler, B., McIntosh, D., Barden, M., Bell, E. F., Rix, H.-W., Borch, A., Beckwith, S., Caldwell, J., **Heymans, C.**, Jahnke, K., Jogee, S., Koposov, S., Meisenheimer, K., Peng, C., Sanchez, S. F., Somerville, R.,Wisotzki, L., Wolf, C., 2007, ApJS, 172, 615.

168. *Cosmic shear analysis of archival HST/ACS data: I. Comparison of early ACS pure parallel data to the HST/GEMS Survey*

Schrabback, T., Erben, T., Simon, P., Miralles, J., Schneider, P., **Heymans, C.**, Eifler, T., Fosbury, R., Freudling, W., Hetterscheidt, M., Hildebrandt, H., Pirzkal, N., 2007, A&A, 468, 824.

169. *The Stability of the Point Spread Function of the Advanced Camera for Surveys on the Hubble Space Telescope and Implications for Weak Gravitational Lensing*

Rhodes, J., Massey, R., Albert, J., Collins, N., Ellis, R., **Heymans, C.**, Gardner, J., Kneib, J-P., Koekemoer, A., Leauthaud, A., Mellier, Y., Refregier, A., Taylor, J., Van Waerbeke, L., 2007, ApJS, 172, 203.

170. *Weak Gravitational Lensing in the COSMOS survey: Galaxy Selection and Shape Measurements*

Leauthaud, A., Massey, R., Kneib, J-P., Rhodes, J., Capak, P., **Heymans, C.**, Ellis, R., Johnston, D., Koekemoer, A., Le Fevre, O., Mellier, Y., Refregier, A., Robin, A., Scoville, N., Tasca, L., Taylor, J., Van Waerbeke, L., 2007, ApJS, 172, 219.

171. *COSMOS: 3D Weak Lensing and the growth of structure*

Massey, R., Rhodes, J., Leauthaud, A., Capak, P., Ellis, R., Koekemoer, A., Refregier, Scoville, N., Taylor, J., A., Albert, J., Berge, J., **Heymans, C.**, Kneib, J-P., Mellier, Y., Mobasher, B., Semboloni, E., Shopbell, P., Tasca, L., Van Waerbeke, L., 2007, ApJS, 172, 239.

172. The Shear *TEsting Programme 2: Factors affecting high precision weak lensing analyses*

Massey, R., **Heymans, C.**, Berge, J., Bernstein, G., Bridle, S., Clowe, D., Dahle, H., Ellis, R., Erben, T., Hetterscheidt, M., High, F., Hirata, C., Hoekstra, H., Hudelot, P., Jarvis, M., Johnston, D., Kuijken, K., Margoniner, V., Mandelbaum, R., Mellier, Y., Nakajima, R., Refregier, A., Rhodes, J., Schrabback, T., Schirmer, M., Seljak, U., Semboloni, E., Van Waerbeke, L., 2007, MNRAS, 376, 13.

173. Cosmic variance of weak lensing surveys in the non-linear regime

Semboloni, E., Van Waerbeke, L., **Heymans, C.**, Hamana, T., Colombi, S., White, M., Mellier, Y., 2007, MNRAS, 375L, 6.

174. Redshift and Shear Calibration: Impact on Cosmic Shear Studies and Survey Design

Van Waerbeke, L., White, M., Hoekstra, H., **Heymans, C.**, 2006, Astroparticle Physics, 26, 2, 91.

175. Potential sources of contamination to weak lensing measurements constraints from N-body simulations,

Heymans, C., White, M., Heavens, A., Vale, C., Van Waerbeke, L., 2006, MNRAS, 371, 750.

176. A weak lensing estimate from GEMS of the virial to stellar mass ratio in massive galaxies to z ~0.8

Heymans, C., Bell, E. F. Rix, H.-W., Barden, M., Borch, A., Caldwell, J., McIntosh, D., Meisenheimer, K., Peng, C., Wolf, C., Beckwith, S., Haeussler, B., Jahnke, K.,Jogee, S., Sanchez, S. F., Somerville, R., Wisotzki, L., 2006, MNRAS, 371L, 60.

177. The Shear TEsting Programme 1: Weak lensing analysis of simulated ground-based observations

Heymans, C., Van Waerbeke, L., Bacon, D., Berge, J., Bernstein, G., Bertin, E., Bridle, S., Brown, M., Clowe, D., Dahle, H., Erben, T., Gray, M., Hetterscheidt, M., Hoekstra, H., Hudelot, P., Jarvis, M., Kuijken, K., Margoniner, V., Massey, R., Mellier, Y., Nakajima, R., Refregier, A., Rhodes, J., Schrabback, T., Wittman, D., 2006, MNRAS, 368, 1323.

178. *Dry Mergers in GEMS: The Dynamical Evolution of Massive Early-Type Galaxies*

Bell, E., Naab, T., McIntosh, D., Somerville, R., Caldwell, J., Barden, M., Wolf, C., Rix, H.-W., Beckwith, S., Borch, A., Haeussler, B., **Heymans, C.**, Jahnke, K., Jogee, S., Koposov, S., Meisenheimer, K., Peng, C., Sanchez, S. F., Wisotzki, L., 2006, ApJ, 640, 241.

179. *GEMS: The evolution of disc galaxies out to z~1*

Barden, M., Rix, H.-W., Somerville, R., Bell, E. F., Haeussler, B., Beckwith, S., Borch, A., Caldwell, J., **Heymans, C.**, Jahnke, K. , Jogee, S., McIntosh, D.,Meisenheimer, K., Peng, C., Sanchez, S. F., Wisotzki, L., Wolf, C., 2005, ApJ, 635, 959.

180. *Cosmological weak lensing with the HST GEMS survey*

Heymans, C., Brown, M., Barden, M., Caldwell, J., Jahnke, K., Rix, H.-W., Taylor, A., Beckwith, S., Bell, E. F., Borch, A., Haeussler, B., Jogee, S., McIntosh, D., Meisenheimer, K., Peng, C., Sanchez, S., Somerville, R., Wisotzki, L., Wolf, C., 2005, MNRAS, 361, 160.

181. *The evolution of early-type red galaxies with GEMS: Luminosity-size and mass-size relations since z~1*

McIntosh, D., Bell, E. F., Rix, H.-W., Wolf, C., **Heymans, C.**, Peng, C., Somerville, R., Barden, M., Beckwith, S., Borch, A., Caldwell, J., Haeussler, B., Jahnke, K., Jogee, S., Meisenheimer, K., Sanchez, S., Wisotzki, L., 2005, ApJ, 632, 191.

182. *GEMS: In what type of galaxies do most stars form at z~0.7*?

Wolf, C., Bell, E. F., McIntosh, D., Rix, H.-W., Barden, M., Beckwith, S., Borch, A., Caldwell, J., Haeussler, B., **Heymans, C.**, Jahnke, K., Jogee, S., Meisenheimer, K., Peng, C., Sanchez, S., Somerville, R., Wisotzki, L., 2005, ApJ, 630 771.

183. *Bar Evolution Over the Last Eight Billion Years: A Constant Fraction of Strong Bars in GEMS*

Jogee, S., Barazza, F., Rix, H.-W., Shlosman, I., Barden, M., Wolf, C., Davies, J., Heyer, I., Beckwith, S., Bell, E. F., Borch, A., Caldwell, J., Conselice, C., Dahlen, T., Haeussler, B., **Heymans, C.**, Jahnke, K., Knapen, J., Laine, S., Lubell, G., Mobasher, B., McIntosh, D., Meisenheimer, K., Peng, C., Ravindranath, S., Sanchez, S., Somerville, R., Wisotzki, L., 2004, ApJL, 615, L105.

184. *Ultraviolet Light from Young Stars in GEMS Quasar Host Galaxies at 1.8<z<2.75*.

Jahnke, K., Sanchez, S., Wisotzki, L., Barden, M., Beckwith, S., Bell, E. F., Borch, A., Caldwell, J., Haeussler, B., **Heymans, C.**, Jogee, S., McIntosh, D., Meisenheimer, K., Peng, C., Rix, H.-W., Somerville, R., Wolf, C., 2004, ApJ, 614, 568.

185. *The Oxford-Dartmouth Thirty Degree Survey - II. Clustering of bright Lyman break galaxies: strong luminosity dependent bias at z=4*

Allen, P., Moustakas, L., Dalton, G., MacDonald, E., Blake, C., Clewley, L. **Heymans, C.**, Wegner, G., 2005, MNRAS, 360, 1244.

186. *The Oxford-Dartmouth Thirty Degree Survey - I. Observations and calibration of a wide-field multi-band survey*

MacDonald, E., Allen, P., Dalton, G., Moustakas, L., **Heymans, C.**, Edmondson, E., Blake, C., Clewley, L., Hammell, M., Olding, E., Miller, L., Rawlings, S., Wall, J., Wegner, G., Wolf, C., 2004, MNRAS, 352, 1255.

187. *Weak lensing with COMBO-17: Estimation and removal of intrinsic alignments*.

Heymans, C., Brown, M., Heavens, A., Meisenheimer, K., Taylor, A., Wolf, C., 2004, MNRAS, 347, 895

188. *Weak gravitational lensing: reducing the contamination by intrinsic alignments.*

Heymans, C., Heavens, A., 2003, MNRAS, 339, 711.

189. *Intrinsic Correlation of Galaxy Shapes: Implication for weak lensing measurements*.
Heavens, A., Refregier, A., **Heymans, C.**, 2000, MNRAS, 319, 649.

190. *The 2dF QSO Redshift Survey - I. The Optical QSO Luminosity Function*.
Boyle, B., Shanks, T., Croom, S., Smith, R., Miller, L., Loaring, N., **Heymans, C.**, 2000, MNRAS, 317, 1014.

Submitted Journal Papers

191. Galaxy shape measurement synergies between LSST and Euclid
Schuhmann, R., **Heymans, C.**, Zuntz, J., MNRAS 2019, submitted.

192. KiDS-1000: Constraints on the intrinsic alignment of luminous red galaxies
Fortuna, M., Hoekstra, H., Johnston, H., Vakili, M., Kannawadi, A., Georgiou, C., Joachimi, B., Wright, A., Asgari, M., Bilicki, M., **Heymans, C.**, Hildebrandt, H., Kuijken, K., von Wietersheim-Kramsta, M., 2021 A&A, submitted.

193. Geometry versus growth: internal consistency of the flat LCDM model with KiDS-1000
Ruiz-Zapatero, J., Stolzner, B., Joachimi, B., Asgari, M., Bilicki, M., Dvornik, A., Giblin, B., **Heymans, C.**, Hildebrandt, H., Kannawadi, A., Kuijken, K., Troester, T., van den Busch, J., Wright, A., 2021 MNRAS, submitted.

Contributions to Conference Proceedings and reports (incomplete)

194.Euclid Definition Study Report

Laureijs, R., et al (218 authors including **Heymans, C.**) astro-ph 1110.3193L, 2011.

195.Probing the accelerating Universe with radio weak lensing in the JVLA Sky Survey

Brown, M., et al (51 authors including **Heymans, C.**) astro-ph 1312.5618, 2013.

196.*Cosmic magnification as a probe of cosmology*

Duncan, C., Heavens, A., Joachimi, B., **Heymans, C.**, 2012, in 47th Recontres de Moriond, Cosmology Session, Ansari et al (eds).

197.The Canada-France-Hawaii Telescope Lensing Survey

Heymans, C. & CFHTLenS Collaboration**,** 2012. In the Bulletin of the American Astronomical Society, 219, 130.01.

198.Weak Lensing in the Abell Cluster A2465

Wegner, G., & **Heymans, C.,** 2011. In the Bulletin of the American Astronomical Society, 218, 319.04.

199.*Barred Disks in Dense Environments*

Marinova, I., Jogee, S., Heiderman, A., Barazza, F., Gray, M., Barden, M., Wolf, C., Peng, C., Bacon, D., Balogh, M., Bell, E., Boehm, A., Caldwell, J., Haussler, B., **Heymans, C.**, Jahnke, K., van Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K., Sanchez, S., Somerville, R., Taylor, A., Wisotzki, L, Zheng, X., 2011, In "Tumbling, twisting, and winding galaxies: Pattern speeds along the Hubble sequence", E. M. Corsini and V. P. Debattista (eds.), Memorie della Societa` Astronomica Italiana, v. 18, p.61.

200.Optically Passive Infall Spirals: The missing link in gradual star formation suppression upon cluster infall

*Wolf, C., Aragon-Salamanca, A., Balogh, M., Barden, M., Bell, E., Gray, M., Peng, C., Bacon, D., Barazza, F., Boehm, A., Caldwell, J., Gallazzi, A. Haussler, B., **Heymans, C.**, Jahnke, K., Jogee, S., van Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K., Papovich, C., Sanchez, S., Taylor, A., Wisotzki, L, Zheng, X., 2009, ASP Conference Series, Shanghai Proceedings.*

201.*Barred Disks in Dense Environments: Insights from the A901/2 CLusters with STAGES.*

Marinova, I., Jogee, S., Heiderman, A., Barazza, F., Gray, M., Barden, M., Wolf, C., Peng, C., Bacon, D., Balogh, M., Bell, E., Boehm, A., Caldwell, J., Haussler, B., **Heymans, C.**, Jahnke, K., van Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K., Sanchez, S., Somerville, R., Taylor, A., Wisotzki, L, Zheng, X., 2008, Mem. S.A.It Vol 75, 282.

202.The Dark Matter Environment of the Abell 901/902 Supercluster: A High Resolution Weak Lensing Mass Map of the HST STAGES Survey

Heymans, C., Gray, M., Peng, C., Van Waerbeke, L., Bacon, D., Balogh, M., Barazza, F., Barden, M., Bell, E., Boehm, A., Caldwell, J., Haeussler, B., Jahnke, K., van Kampen, E., Lane, K., McIntosh, D., Meisenheimer, K, Mellier, Y., Sanchez, S., Taylor, A., Wisotzki, L., Zheng, X., 2007. In the Bulletin of the American Astronomical Society, 211, 67.05.

203.*STAGES: Space Telescope A901/902 Galaxy Evolution Survey*

Gray, M., Aragon-Salamanca, A., Bacon, D., Balogh, M., Barazza, F., Barden, M., Bell, E., Beswick, R., Boehm, A., Caldwell, J., Gallazzi, A., Gilmour, R., Green, D., Haeussler, B., Heiderman, A., **Heymans, C.** Jahnke, K., Jogee, S., van Kampen, E., Koposov, S., Lane, K., Marinova, I., Meisenheimer, K, McIntosh, D., Papovich, C., Peng, C., Rix., H.-W., Saikia, D.,

Sanchez, S., Somerville, R., Taylor, A., Van Waerbeke, L., Wisotzki, L., Wolf, C., Zheng, X., 2007. In the Bulletin of the American Astronomical Society, 211, 132.20.

204. *The Evolution of Bars and Disks as a Function of Environment in STAGES*

Marinova, I., Jogee, S., Bacon, D., Balogh, M., Barazza, F., Barden, M., Bell, E., Boehm, A., Caldwell, J., Gray, M., Haeussler, B., **Heymans, C.,** Jahnke, K., van Kampen, E., Koposov, S., Lane, K., McIntosh, D., Meisenheimer, K, Peng, C., Rix, H.-W., Sanchez, S., Taylor, A., Wisotzki, L., Zheng, X., 2007. In the Bulletin of the American Astronomical Society, 211, 97.12.

205. *Transformation Of Galaxies By Interactions And Mergers In The A901/02 Supercluster: Environmental Constraints From The STAGES Survey*

Heiderman, A., Jogee, S., Bacon, D., Balogh, M., Barazza, F., Barden, M., Bell, E., Boehm, A., Caldwell, J., Gray, M., Haeussler, B., **Heymans, C.,** Jahnke, K., van Kampen, E., Koposov, S., Lane, K., McIntosh, D., Meisenheimer, K, Peng, C., Rix., H.-W., Sanchez, S., Taylor, A., Wisotzki, L., Zheng, X., 2007. In the Bulletin of the American Astronomical Society, 211, 96.13.

206. Optically Passive Infall Spirals In Stages: Star Formation Only Semi-quenched

Wolf, C., Gray, M., Bell, E., Gallazzi, A., Meisenheimer, K., Papovich, C., Aragon-Salamanca, A., Bacon, D., Balogh, M., Barazza, F., Barden, M., Boehm, A., Caldwell, J., Haeussler, B., **Heymans, C.**, Jahnke, K., van Kampen, E., Koposov, S., Lane, K., McIntosh, D., Peng, C., Rix., H.-W., Sanchez, S., Taylor, A., Wisotzki, L., Zheng, X., 2007. In the Bulletin of the American Astronomical Society, 211, 67.01.

207. Frequency and Impact of Galaxy Mergers and Interactions over the last 7 Gigayears

Jogee, S., Miller, S., Penner, K., Bell, E., Conselice, C., Skelton, R., Somerville, R., Rix H.-W., Barazza, F., Barden, M., Borch, A., Beckwith, S., Caldwell, J., Haeussler, B., **Heymans, C.**, Jahnke, K., McIntosh, D., Meisenheimer, K., Papovich, C., Peng, C., Robaina, A., Sanchez, S., Wisotzki, L., Wolf, C., , 2007. Proceedings of “Formation and Evolution of Galaxy Disks”.

208. Star Formation in Interacting and Normal Galaxies over the last 7 Gigayears

Jogee, S., Miller, S., Penner, K., Bell, E., Zheng, X., Papovich, C., Conselice, C., Skelton, R., Somerville, R., Rix H.-W., Robaina, A., Barazza, F., Barden, M., Borch, A., Beckwith, S., Caldwell, J., Haeussler, B., **Heymans, C.**, Jahnke, K., McIntosh, D., Meisenheimer, K., Peng, C., Sanchez, S., Wisotzki, L., Wolf, C., , 2007. In the Bulletin of the American Astronomical Society, 211, 126.06.

209. *Characterizing Interacting Galaxies out to z~0.8 Using CAS and Visual Classification*

Miller, S., Jogee, S., Penner, K., Conselice, C., Bell, E., Zheng, X., Papovich, C., Skelton, R., Somerville, R., Robaina A., Rix H.-W., Barazza, F., Barden, M., Beckwith, S., Caldwell, J., Haeussler, B., **Heymans, C.**, Jahnke, K., McIntosh, D., Meisenheimer, K., Peng, C., Sanchez, S., Wisotzki, L., Wolf, C., , 2007. In the Bulletin of the American Astronomical Society, 211, 5205.

210. *New constraints on dark matter substructure from weak gravitational flexion*

Rowe, B., Bacon, D., Taylor, A., **Heymans, C.**, Massey, R., Barden, M., Caldwell, J., 2006. In `Cosmic Frontiers', edited by, Shanks, T., ASP conference series.

211. *The Space Telescope A901/902 Galaxy Evolution Survey (STAGES): probing environmental drivers of galaxy evolution with HST*

Peng, C., Gray, M., Bacon, D., Balogh, M., Barden, M., Barazza, F., Bell, E., Caldwell, J., Haeussler, B., **Heymans, C.**, Jahnke, K., Jogee, S., Koposov, S., Lane, K., McIntosh, D., Meisenheimer, K., Rix, H.-W., Sanchez, S., Somerville, R., Taylor, A., Wisotzki, L., Wolf, C., Zheng, X., 2005. In the Bulletin of the American Astronomical Society, 207, 1192.

212.*GEMS: The Destiny of Blue Spheroidal Galaxies*

Haeussler, B., Bell, E., Barden, M., Rix, H.-W., McIntosh, D., Borch, A., Beckwith, S., Caldwell, J., **Heymans, C.**, Jahnke, K., Jogee, S., Meisenheimer, K., Sanchez, S., Somerville, R., Wisotzki, L., Wolf, C., Peng, C., 2006. In `Galaxy Evolution Across the Hubble Time', IAU Symposium no. 235, edited by Combes, F. & Palous, J., Cambridge University Press.

213.*Weak lensing studies from space with GEMS*

Heymans, C., Brown, M., Barden, M., Caldwell, J., Jahnke, K., Rix, H.-W., Taylor, A., Beckwith, S., Bell, E. F., Borch, A., Haeussler, B., Jogee, S., McIntosh, D., Meisenheimer, K., Peng, C., Sanchez, S., Somerville, R., Wisotzki, L., Wolf, C., 2004. In `Wide-field imaging from space', New Astronomy Reviews, 49, 392.

214.*Weak lensing results from GEMS*

Heymans, C., Brown, M., Barden, M., Caldwell, J., Jahnke, K., Rix, H.-W., Taylor, A., Beckwith, S., Bell, E. F., Borch, A., Haeussler, B., Jogee, S., McIntosh, D., Meisenheimer, K., Peng, C., Sanchez, S., Somerville, R., Wisotzki, L., Wolf, C., 2004. In `Impact of Gravitational lensing on Cosmology', IAU Symposium 225, edited by Mellier, Y. & Meylan, G., Cambridge University Press.

215.*Evolution and Impact of Bars over the last nine Gyr: Early Results from GEMS*

Jogee, S., Barazza, F., Rix, H.-W., Davies, J., Heyer, I., Barden, M., Beckwith, S., Bell, E., Borch, A., Caldwell, J., Conselice, C., Haeuss ler, B., **Heymans, C.**, Jahnke, K., Knapen, J., Laine, S., Lubell, G., Mobasher, B., McIntosh, D., Meisenheimer, K., Peng, C., Ravindranath, S., Sanchez, S., Shlosman, I., Somerville, R., Wisotzki, L., Wolf, C., 2004. In `Penetrating bars through masks of cosmic dust : the Hubble tuning fork strikes a new note,' edited by Block, D., Puerari, I., Freeman, K., Groess, R. & Block, E. ASSL, 319, 291.

216.*Reducing and constraining the intrinsic galaxy alignment contamination to weak lensing measurements.*

Heymans, C., Heavens, A., 2003. In `Gravitational Lensing: A unique tool for Cosmology', edited by Kneib, J. & Valls-Gabaud, D.