

Publication list

I have co-authored 50 scientific articles intended for peer-reviewed publication, including 7 first-author papers. They have been cited more than 1,500 times and have an h -index of 22, with more than 170 citations on my first-author papers. They also include three companion reviews on galaxy alignments written for a special issue of Space Science Reviews (B. Joachimi et al. 2015, A. Kiessling et al. 2015, D. Kirk et al. 2015). The full list of publications is summarized below, and can be accessed at [this url](#). I also wrote an invited ‘News & Views’ article for Nature Astronomy, accessible [here](#).

First-Author Papers

7. **C. Sifón**, R. Herbonnet, H. Hoekstra, R. F. J. van der Burg, M. Viola, “**The Galaxy-Subhalo Connection in Low-Redshift Galaxy Clusters from Weak Gravitational Lensing**”, 2017, [arXiv:1706.06125](#), submitted to MNRAS
6. **C. Sifón**, R. F. J. van der Burg, H. Hoekstra, A. Muzzin, R. Herbonnet, “**A First Constraint on the Average Mass of Ultra Diffuse Galaxies from Weak Gravitational Lensing**”, 2018, MNRAS, 473, 3747,
5. **C. Sifón**, N. Battaglia, M. Hasselfield, et al. (25 co-authors), “**The Atacama Cosmology Telescope: Dynamical Masses for 44 SZ-Selected Galaxy Clusters over 755 Square Degrees**”, 2016, MNRAS, 461, 248
4. **C. Sifón**, M. Cacciato, H. Hoekstra, et al. (26 co-authors), “**The Masses of Satellites in GAMA Galaxy Groups from 100 Square Degrees of KiDS Weak Lensing Data**”, 2015, MNRAS, 454, 3938
3. **C. Sifón**, H. Hoekstra, M. Cacciato, M. Viola, F. Köhlinger, R. F. J. van der Burg, D. J. Sand, M. L. Graham, “**Constraints on the Alignments of Galaxies in Galaxy Clusters from $\sim 14,000$ Spectroscopic Members**”, 2015, A&A, 575, A48
2. **C. Sifón**, F. Menanteau, J. P. Hughes, M. Carrasco, L. F. Barrientos, “**Strong Lensing Analysis of PLCK G004.5–19.5, a Planck-Discovered Cluster Hosting a Radio Relic at $z = 0.52$** ”, 2014, A&A, 562, A43
1. **C. Sifón**, F. Menanteau, M. Hasselfield, et al. (36 co-authors), “**The Atacama Cosmology Telescope: Dynamical Masses and Scaling Relations for a Sample of Massive Sunyaev-Zel’dovich Effect Selected Galaxy Clusters**”, 2013, ApJ, 772, 25

Major Contributor Papers

11. M. Hilton, M. Hasselfield, **C. Sifón**, et al. (43 co-authors), “**The Atacama Cosmology Telescope: The Two-Season ACTPol Sunyaev-Zel’dovich Effect Selected Cluster Catalog**”, 2017, [arXiv:1709.05600](#), submitted to ApJS
10. J. G. Albert, **C. Sifón**, A. Stroe, F. Mernier, H. T. Intema, H. J. A. Röttgering, G. Brunetti, “**Complex Diffuse Emission in the $z = 0.52$ Cluster PLCK G004.5–19.5**”, 2017, A&A, 607, A4
9. R. F. J. van der Burg, H. Hoekstra, A. Muzzin, **C. Sifón**, et al. (17 co-authors), “**The Abundance of Ultra-Diffuse Galaxies from Groups to Clusters: UDGs are Relatively More Common in More Massive Haloes**”, 2017, A&A, 607, A79
8. E. van Uitert, M. Cacciato, H. Hoekstra, M. Brouwer, **C. Sifón**, et al. (29 co-authors), “**The Stellar-to-Halo Mass Relation of GAMA Galaxies from 100 Square Degrees of KiDS Weak Lensing Data**”, 2016, MNRAS, 459, 3251

7. D. Kirk, M. L. Brown, H. Hoekstra, B. Joachimi, T. D. Kitching, R. Mandelbaum, **C. Sifón**, M. Cacciato, A. Choi, A. Kiessling, A. Leonard, A. Rassat, B. Malte Schäfer, **“Galaxy Alignments: Observations and Impact on Cosmology”**, 2015, [Space Sci. Rev.](#), **193**, 139
6. A. Kiessling, M. Cacciato, B. Joachimi, D. Kirk, T. D. Kitching, A. Leonard, R. Mandelbaum, B. Malte Schäfer, **C. Sifón**, M. L. Brown, A. Rassat **“Galaxy Alignments: Theory, Modelling & Simulations”**, 2015, [Space Sci. Rev.](#), **193**, 67
5. B. Joachimi, M. Cacciato, T. D. Kitching, A. Leonard, R. Mandelbaum, B. Malte Schäfer, **C. Sifón**, H. Hoekstra, A. Kiessling, D. Kirk, A. Rassat, **“Galaxy Alignments: an Overview”**, 2015, [Space Sci. Rev.](#), **193**, 1
4. R. F. J. van der Burg, H. Hoekstra, A. Muzzin, **C. Sifón**, M. L. Balogh, S. McGee, **“Evidence for the Inside-Out Growth of the Stellar Mass Distribution in Galaxy Clusters since $z \sim 1$ ”**, 2015, [A&A](#), **577**, 19
3. M. Hilton, M. Hasselfield, **C. Sifón**, et al. (26 co-authors), **“The Atacama Cosmology Telescope: The Stellar Content of Galaxy Clusters Selected Using the Sunyaev-Zel’dovich Effect”**, 2013, [MNRAS](#), **435**, 3469
2. F. Menanteau, **C. Sifón**, L. F. Barrientos, et al. (26 co-authors), **“The Atacama Cosmology Telescope: Physical Properties of Sunyaev-Zel’dovich Effect Clusters on the Celestial Equator”**, 2013, [ApJ](#), **765**, 67
1. F. Menanteau, J. P. Hughes, **C. Sifón**, et al. (27 co-authors), **“The Atacama Cosmology Telescope: ACT-CL J0102–4915 “El Gordo,” a Massive Merging Cluster at Redshift 0.87”**, 2012, [ApJ](#), **748**, 7

Contributing Author Papers

32. A. Jakobs, et al. (20 co-authors), **“Multi-Wavelength Scaling Relations in Galaxy Groups: a Detailed Comparison of GAMA and KiDS Observations to BAHAMAS Simulations”**, 2017, [arXiv:1712.05463](#), submitted to MNRAS
31. J. F. Wu, P. Aguirre, A. J. Baker, M. J. Devlin, M. Hilton, J. P. Hughes, L. Infante, R. R. Lindner, **C. Sifón**, **“Herschel and ALMA Observations of Massive SZE-selected Clusters”**, 2017, [arXiv:1712.04540](#), accepted for publication in ApJ
30. L. Old, et al. (18 co-authors), **“Galaxy Cluster Mass Reconstruction Project: III. The Impact of Dynamical Substructure on Cluster Mass Estimates”**, 2017, [arXiv:1709.10108](#), accepted for publication in MNRAS
29. J. P. Greco, et al. (13 co-authors), **“Illuminating Low-Surface-Brightness Galaxies with the Hyper Suprime-Cam Survey”**, 2017, [arXiv:1709.04474](#), submitted to ApJ
28. E. Medezinski, et al. (12 co-authors), **“Planck Sunyaev-Zel’dovich Cluster Mass Calibration using Hyper Suprime-Cam Weak Lensing”**, 2017, [arXiv:1706.00434](#), accepted for publication in PASJ
27. E. Medezinski, et al. (16 co-authors), **“Source Selection for Cluster Weak Lensing Measurements in the Hyper Suprime-Cam Survey”**, 2017, [arXiv:1706.00427](#), submitted to PASJ
26. R. Mandelbaum, et al. (27 co-authors), **“The First-Year Shear Catalog of the Subaru Hyper Suprime-Cam SSP Survey”**, 2017, [arXiv:1705.06745](#), accepted for publication in PASJ

25. A. Dvornik, et al. (22 co-authors), “A KiDS Weak Lensing Analysis of Assembly Bias in GAMA Galaxy Groups”, 2017, [MNRAS](#), 468, 3251
24. M. M. Brouwer, et al. (22 co-authors), “First Test of Verlinde’s Theory of Emergent Gravity Using Weak Gravitational Lensing Measurements”, 2017, [MNRAS](#), 466, 2547
23. M. Velliscig, et al. (17 co-authors), “Galaxy-Galaxy Lensing in EAGLE: Comparison with Data from 180 Square Degrees of the KiDS and GAMA Surveys”, 2017, [MNRAS](#), 471, 2856
22. M. M. Brouwer, et al. (36 co-authors), “Dependence of GAMA Galaxy Halo Masses on the Cosmic Web Environment from 100 Square Degrees of KiDS Weak Lensing Data”, 2016, [MNRAS](#), 462, 4451
21. N. Battaglia, et al. (39 co-authors), “Weak-Lensing Mass Calibration of the Atacama Cosmology Telescope Equatorial Sunyaev-Zel’dovich Cluster Sample with the Canada-France-Hawaii Telescope Stripe 82 Survey”, 2016, [JCAP](#), 08, 013
20. S. Bellstedt, et al. (16 co-authors), “The Evolution in the Stellar Mass of Brightest Cluster Galaxies over the Past 10 Billion Years”, 2016, [MNRAS](#), 460, 2862
19. K. Knowles, et al. (21 co-authors), “A Giant Radio Halo in a Low-Mass SZ-Selected Galaxy Cluster: ACT-CL J0256.5+0006”, 2016, [MNRAS](#), 459, 4240
18. D. Crichton, et al. (22 co-authors), “Evidence for the Thermal Sunyaev-Zel’dovich Effect Associated with Quasar Feedback”, 2016, [MNRAS](#), 458, 1478,
17. J. T. A. de Jong, et al. (49 co-authors), “The First and Second Data Releases of the Kilo Degree Survey”, 2015, [A&A](#), 582, 62
16. K. Kuijken, et al. (35 co-authors), “Gravitational Lensing Analysis of the Kilo Degree Survey”, 2015, [MNRAS](#), 454, 3500
15. K. Y. Ng, W. A. Dawson, D. Wittman, M. J. Jee, J. P. Hughes, F. Menanteau, **C. Sifón**, “The Return of the Merging Galaxy Subclusters of El Gordo?”, 2015, [MNRAS](#), 453, 1531
14. M. Viola, et al. (27 co-authors), “Dark Matter Halo Properties of GAMA Galaxy Groups from 100 Square Degrees of KiDS Weak Lensing Data”, 2015, [MNRAS](#), 452, 3529
13. R. R. Lindner, et al. (25 co-authors), “The Atacama Cosmology Telescope: the LABOCA/ACT Survey of Clusters at All Redshifts”, 2015, [ApJ](#), 803, 79
12. B. Kirk, et al. (23 co-authors), “SALT Spectroscopic Observations of Galaxy Clusters Detected by ACT and a Type II Quasar Hosted by a Brightest Cluster Galaxy”, 2015, [MNRAS](#), 449, 4010
11. L. Old, et al. (24 co-authors), “Galaxy Cluster Mass Reconstruction Project: II. Results for Galaxy-Based Techniques with Improved Models”, 2015, [MNRAS](#), 449, 1897
10. M. B. Gralla, et al. (41 co-authors), “A Measurement of the Millimeter Emission and the Sunyaev-Zel’dovich Effect Associated with Low-Frequency Radio Sources”, 2014, [MNRAS](#), 445, 460
9. L. Old, et al. (21 co-authors), “Galaxy Cluster Mass Reconstruction Project: I. Methods and First Results on Galaxy-Based Techniques”, 2014, [MNRAS](#), 441, 1513
8. M. J. Jee, J. P. Hughes, F. Menanteau, **C. Sifón**, L. F. Barrientos, L. Infante, R. Mandelbaum, K. Y. Ng, “Weighing “El Gordo” with a Precision Scale: Hubble Space Telescope Weak-Lensing Analysis of the Galaxy Cluster ACT-CL J0102-4915 at $z = 0.87$ ”, 2014, [ApJ](#), 785, 20

7. M. Hasselfield, et al. (44 co-authors), “**The Atacama Cosmology Telescope: Sunyaev-Zel’dovich Selected Galaxy Clusters at 148 GHz from Three Seasons of Data**”, 2013, [JCAP, 07, 008](#)
6. E. Calabrese, et al. (34 co-authors), “**Cosmological Parameters from Pre-Planck Cosmic Microwave Background Measurements**”, 2013, [Phys. Rev. D, 87, 103012](#)
5. N. Sehgal, et al. (36 co-authors), “**The Atacama Cosmology Telescope: Relation Between Galaxy Cluster Optical Richness and Sunyaev-Zel’dovich Effect**”, 2013, [ApJ, 767, 38](#)
4. H. Miyatake, et al. (28 co-authors), “**Subaru Weak-Lensing Measurement of a $z = 0.81$ Cluster Discovered by the Atacama Cosmology Telescope Survey**”, 2013, [MNRAS, 429, 3627](#)
3. B. D. Sherwin, et al. (31 co-authors), “**The Atacama Cosmology Telescope: Cross-correlation of CMB Lensing and Quasars**”, 2012, [Phys. Rev. D, 86, 083006](#)
2. N. Hand, et al. (58 co-authors), “**Evidence of Galaxy Cluster Motions with the Kinematic Sunyaev-Zel’dovich Effect**”, 2012, [Phys. Rev. Letters, 109, 041101](#)
1. E. D. Reese, et al. (44 co-authors), “**The Atacama Cosmology Telescope: High-Resolution Sunyaev-Zel’dovich Array Observations of ACT SZE-selected Clusters from the Equatorial Strip**”, 2012, [ApJ, 751, 12](#)