

Publication statistics

As of February 28, 2021, I have 28 peer-reviewed papers and 8 pre-prints on arXiv (astro-ph), with a total of more than 849 citations, and h-index=14 (taken from NASA-ADS). Two of my papers have more than 100 citations each. The most up-to-date list of my publications can be found from ADS here:

http://adsabs.harvard.edu/cgi-bin/basic_connect?qsearch=Kannawad*+&version=1

or from my Google scholar profile: <https://scholar.google.nl/citations?user=QoX9bu8AAAAJ&hl=en>

First-authored papers

- [KRH21] **A. Kannawadi**, E. Rosenberg, and H. Hoekstra. “Mitigating the effects of undersampling in weak lensing shear estimation with metacalibration”. In: MNRAS 502.3 (Apr. 2021), pp. 4048–4063. DOI: 10.1093/mnras/stab211. arXiv: 2010.04164.
- [A K+19] **A. Kannawadi**, H. Hoekstra, L. Miller, M. Viola, I. Fenech Conti, R. Herbonnet, T. Erben, C. Heymans, H. Hildebrandt, K. Kuijken, M. Vakili, and A. H. Wright. “Towards emulating cosmic shear data: revisiting the calibration of the shear measurements for the Kilo-Degree Survey”. In: A&A 624, A92 (Apr. 2019), A92. DOI: 10.1051/0004-6361/201834819. arXiv: 1812.03983 [astro-ph.CO].
- [Kan+16] **A. Kannawadi**, C. A. Shapiro, R. Mandelbaum, C. M. Hirata, J. W. Kruk, and J. D. Rhodes. “The Impact of Interpixel Capacitance in CMOS Detectors on PSF Shapes and Implications for WFIRST”. In: PASP 128.9 (Sept. 2016), p. 095001. DOI: 10.1088/1538-3873/128/967/095001. arXiv: 1512.01570 [astro-ph.IM].
- [KML15] **A. Kannawadi**, R. Mandelbaum, and C. Lackner. “The impact of cosmic variance on simulating weak lensing surveys”. In: MNRAS 449 (June 2015), pp. 3597–3612. DOI: 10.1093/mnras/stv520. arXiv: 1412.1094.
- [KSL16] **A. Kannawadi**, A. Sharma, and A. Lakshminarayan. “Persistent entanglement in a class of eigenstates of quantum Heisenberg spin glasses”. In: *EPL (Europhysics Letters)* 115 (Sept. 2016), p. 57005. DOI: 10.1209/0295-5075/115/57005. arXiv: 1407.5090 [quant-ph].

Co-authored papers with significant contribution

- [Li+21] S.-S. Li, K. Kuijken, H. Hoekstra, H. Hildebrandt, B. Joachimi, and **A. Kannawadi**. “KiDS+VIKING-450: An internal-consistency test for cosmic shear tomography with a colour-based split of source galaxies”. In: A&A 646, A175 (Feb. 2021), A175. DOI: 10.1051/0004-6361/202039254.
- [HKK21] H. Hoekstra, **A. Kannawadi**, and T. D. Kitching. “Accounting for object detection bias in weak gravitational lensing studies”. In: A&A 646, A124 (Feb. 2021), A124. DOI: 10.1051/0004-6361/202038998. arXiv: 2010.04178 [astro-ph.CO].
- [Gib+21] B. Giblin, C. Heymans, M. Asgari, H. Hildebrandt, H. Hoekstra, B. Joachimi, **A. Kannawadi**, K. Kuijken, C.-A. Lin, L. Miller, T. Tröster, J. L. van den Busch, A. H. Wright, M. Bilicki, C. Blake, J. T. A. de Jong, A. Dvornik, T. Erben, F. Getman, N. R. Napolitano, P. Schneider, H. Shan, and E. Valentijn. “KiDS-1000 catalogue: Weak gravitational lensing shear measurements”. In: A&A 645, A105 (Jan. 2021), A105. DOI: 10.1051/0004-6361/202038850. arXiv: 2007.01845 [astro-ph.CO].
- [Asg+21] M. Asgari, C.-A. Lin, B. Joachimi, B. Giblin, C. Heymans, H. Hildebrandt, **A. Kannawadi**, B. Stölzner, T. Tröster, J. L. van den Busch, A. H. Wright, M. Bilicki, C. Blake, J. T. A. de Jong, A. Dvornik, T. Erben, F. Getman, H. Hoekstra, F. Köhlinger, K. Kuijken, L. Miller, M. Radovich, P. Schneider, H. Shan, and E. A. Valentijn. “KiDS-1000 cosmology: Cosmic shear constraints and comparison between two point statistics”. In: A&A 645, A104 (Jan. 2021), A104. DOI: 10.1051/0004-6361/202039070. arXiv: 2007.15633 [astro-ph.CO].
- [Wri+20] A. H. Wright, H. Hildebrandt, J. L. van den Busch, C. Heymans, B. Joachimi, **A. Kannawadi**, and K. Kuijken. “KiDS+VIKING-450: Improved cosmological parameter constraints from redshift calibration with self-organising maps”. In: A&A 640, L14 (Aug. 2020), p. L14. DOI: 10.1051/0004-6361/202038389. arXiv: 2005.04207 [astro-ph.CO].
- [Jou+20] S. Joudaki, H. Hildebrandt, D. Traykova, N. E. Chisari, C. Heymans, **A. Kannawadi**, K. Kuijken, A. H. Wright, M. Asgari, T. Erben, H. Hoekstra, B. Joachimi, L. Miller, T. Tröster, and J. L. van den Busch. “KiDS+VIKING-450 and DES-Y1 combined: Cosmology with cosmic shear”. In: A&A 638, L1 (June 2020), p. L1. DOI: 10.1051/0004-6361/201936154. arXiv: 1906.09262 [astro-ph.CO].

- [Euc+20] Euclid Collaboration, P. Paykari, T. Kitching, H. Hoekstra, R. Azzollini, V. F. Cardone, M. Cropper, C. A. J. Duncan, **A. Kannawadi**, L. Miller, H. Aussel, I. F. Conti, N. Auricchio, M. Baldi, S. Bardelli, A. Biviano, D. Bonino, E. Borsato, E. Bozzo, E. Branchini, S. Brau-Nogue, M. Brescia, J. Brinchmann, C. Burigana, et al. “Euclid preparation. VI. Verifying the performance of cosmic shear experiments”. In: *A&A* 635, A139 (Mar. 2020), A139. DOI: 10.1051/0004-6361/201936980. arXiv: 1910.10521 [astro-ph.CO].
- [Hil+20b] H. Hildebrandt, F. Köhlinger, J. L. van den Busch, B. Joachimi, C. Heymans, **A. Kannawadi**, A. H. Wright, M. Asgari, C. Blake, H. Hoekstra, S. Joudaki, K. Kuijken, L. Miller, C. B. Morrison, T. Tröster, A. Amon, M. Archidiacono, S. Brieden, A. Choi, J. T. A. de Jong, T. Erben, B. Giblin, A. Mead, J. A. Peacock, et al. “KiDS+VIKING-450: Cosmic shear tomography with optical and infrared data”. In: *A&A* 633, A69 (Jan. 2020), A69. DOI: 10.1051/0004-6361/201834878. arXiv: 1812.06076 [astro-ph.CO].
- [Geo+19] C. Georgiou, H. Johnston, H. Hoekstra, M. Viola, K. Kuijken, B. Joachimi, N. E. Chisari, D. J. Farrow, H. Hildebrandt, B. W. Holwerda, and **A. Kannawadi**. “The dependence of intrinsic alignment of galaxies on wavelength using KiDS and GAMA”. In: *A&A* 622, A90 (Feb. 2019), A90. DOI: 10.1051/0004-6361/201834219. arXiv: 1809.03602 [astro-ph.CO].
- [Har+18] J. Harnois-Déraps, A. Amon, A. Choi, V. Demchenko, C. Heymans, **A. Kannawadi**, R. Nakajima, E. Sirks, L. van Waerbeke, Yan-Chuan Cai, B. Giblin, H. Hildebrandt, H. Hoekstra, L. Miller, and T. Tröster. “Cosmological simulations for combined-probe analyses: covariance and neighbour-exclusion bias”. In: *MNRAS* 481.1 (Nov. 2018), pp. 1337–1367. DOI: 10.1093/mnras/sty2319. arXiv: 1805.04511 [astro-ph.CO].
- [Pla+16] A. A. Plazas, C. Shapiro, **A. Kannawadi**, R. Mandelbaum, J. Rhodes, and R. Smith. “The Effect of Detector Nonlinearity on WFIRST PSF Profiles for Weak Gravitational Lensing Measurements”. In: *PASP* 128.10 (Oct. 2016), p. 104001. DOI: 10.1088/1538-3873/128/968/104001. arXiv: 1605.01001 [astro-ph.IM].
- [Man+14] R. Mandelbaum, B. Rowe, J. Bosch, C. Chang, F. Courbin, M. Gill, M. Jarvis, **A. Kannawadi**, T. Kacprzak, C. Lackner, A. Leauthaud, H. Miyatake, R. Nakajima, J. Rhodes, M. Simet, J. Zuntz, B. Armstrong, S. Bridle, J. Coupon, J. P. Dietrich, M. Gentile, C. Heymans, A. S. Jurling, S. M. Kent, et al. “The Third Gravitational Lensing Accuracy Testing (GREAT3) Challenge Handbook”. In: *ApJS* 212, 5 (May 2014), p. 5. DOI: 10.1088/0067-0049/212/1/5. arXiv: 1308.4982.

Co-authored papers with infrastructure contributions

- [Hey+21] C. Heymans, T. Tröster, M. Asgari, C. Blake, H. Hildebrandt, B. Joachimi, K. Kuijken, C.-A. Lin, A. G. Sánchez, J. L. van den Busch, A. H. Wright, A. Amon, M. Bilicki, J. T. A. de Jong, M. Crocce, A. Dvornik, T. Erben, M. C. Fortuna, F. Getman, B. Giblin, K. Glazebrook, H. Hoekstra, S. Joudaki, **A. Kannawadi**, et al. “KiDS-1000 Cosmology: Multi-probe weak gravitational lensing and spectroscopic galaxy clustering constraints”. In: *A&A* 646, A140 (Feb. 2021), A140. DOI: 10.1051/0004-6361/202039063.
- [Joa+21] B. Joachimi, C. -A. Lin, M. Asgari, T. Tröster, C. Heymans, H. Hildebrandt, F. Köhlinger, A. G. Sánchez, A. H. Wright, M. Bilicki, C. Blake, J. L. van den Busch, M. Crocce, A. Dvornik, T. Erben, F. Getman, B. Giblin, H. Hoekstra, **A. Kannawadi**, K. Kuijken, N. R. Napolitano, P. Schneider, R. Scoccimarro, E. Sellentin, et al. “KiDS-1000 methodology: Modelling and inference for joint weak gravitational lensing and spectroscopic galaxy clustering analysis”. In: *A&A* 646, A129 (Feb. 2021), A129. DOI: 10.1051/0004-6361/202038831. arXiv: 2007.01844 [astro-ph.CO].
- [Sch+21] T. Schrabback, H. Hoekstra, L. Van Waerbeke, E. van Uitert, C. Georgiou, M. Asgari, P. Côté, J.-C. Cuillandre, T. Erben, L. Ferrarese, S. D. J. Gwyn, C. Heymans, H. Hildebrandt, **A. Kannawadi**, K. Kuijken, A. Leauthaud, M. Makler, S. Mei, L. Miller, A. Raichoor, P. Schneider, and A. H. Wright. “Tightening weak lensing constraints on the ellipticity of galaxy-scale dark matter haloes”. In: *A&A* 646, A73 (Feb. 2021), A73. DOI: 10.1051/0004-6361/202037670. arXiv: 2010.00311 [astro-ph.CO].
- [Bla+20] C. Blake, A. Amon, M. Asgari, M. Bilicki, A. Dvornik, T. Erben, B. Giblin, K. Glazebrook, C. Heymans, H. Hildebrandt, B. Joachimi, S. Joudaki, **A. Kannawadi**, K. Kuijken, C. Lidman, D. Parkinson, H. -Y. Shan, T. Tröster, J. L. van den Busch, C. Wolf, and A. H. Wright. “Testing gravity using galaxy-galaxy lensing and clustering amplitudes in KiDS-1000, BOSS, and 2dFLenS”. In: *A&A* 642, A158 (Oct. 2020), A158. DOI: 10.1051/0004-6361/202038505. arXiv: 2005.14351 [astro-ph.CO].
- [Dvo+20] A. Dvornik, H. Hoekstra, K. Kuijken, A. H. Wright, M. Asgari, M. Bilicki, T. Erben, B. Giblin, A. W. Graham, C. Heymans, H. Hildebrandt, A. M. Hopkins, **A. Kannawadi**, C. -A. Lin, E. N. Taylor, and T. Tröster. “KiDS+GAMA: The weak lensing calibrated stellar-to-halo mass relation of central and satellite galaxies”. In: *A&A* 642, A83 (Oct. 2020), A83. DOI: 10.1051/0004-6361/202038693. arXiv: 2006.10777 [astro-ph.CO].
- [Lin+20] L. Linke, P. Simon, P. Schneider, T. Erben, D. J. Farrow, C. Heymans, H. Hildebrandt, A. M. Hopkins, **A. Kannawadi**, N. R. Napolitano, C. Sifón, and A. H. Wright. “KiDS+VIKING+GAMA: Testing semi-analytic models of galaxy evolution with galaxy-galaxy-galaxy lensing”. In: *A&A* 640, A59 (Aug. 2020), A59. DOI: 10.1051/0004-6361/202038355. arXiv: 2005.02419 [astro-ph.CO].

- [Asg+20] M. Asgari, T. Tröster, C. Heymans, H. Hildebrandt, J. L. van den Busch, A. H. Wright, A. Choi, T. Erben, B. Joachimi, S. Joudaki, **A. Kannawadi**, K. Kuijken, C. -A. Lin, P. Schneider, and J. Zuntz. “KiDS+VIKING-450 and DES-Y1 combined: Mitigating baryon feedback uncertainty with COSEBIs”. In: *A&A* 634, A127 (Feb. 2020), A127. DOI: 10.1051/0004-6361/201936512. arXiv: 1910.05336 [astro-ph.CO].
- [Trö+20b] T. Tröster, Ariel. G. Sánchez, M. Asgari, C. Blake, M. Crocce, C. Heymans, H. Hildebrandt, B. Joachimi, S. Joudaki, **A. Kannawadi**, C. -A. Lin, and A. Wright. “Cosmology from large-scale structure. Constraining Λ CDM with BOSS”. In: *A&A* 633, L10 (Jan. 2020), p. L10. DOI: 10.1051/0004-6361/201936772. arXiv: 1909.11006 [astro-ph.CO].
- [Xia+20] Q. Xia, N. C. Robertson, C. Heymans, A. Amon, M. Asgari, Y.-C. Cai, T. Erben, J. Harnois-Déraps, H. Hildebrandt, **A. Kannawadi**, K. Kuijken, P. Schneider, C. Sifón, T. Tröster, and A. H. Wright. “A gravitational lensing detection of filamentary structures connecting luminous red galaxies”. In: *A&A* 633, A89 (Jan. 2020), A89. DOI: 10.1051/0004-6361/201936678. arXiv: 1909.05852 [astro-ph.CO].
- [Vak+19] M. Vakili, M. Bilicki, H. Hoekstra, N. E. Chisari, M. J. I. Brown, C. Georgiou, **A. Kannawadi**, K. Kuijken, and A. H. Wright. “Luminous red galaxies in the Kilo-Degree Survey: selection with broad-band photometry and weak lensing measurements”. In: *MNRAS* 487.3 (Aug. 2019), pp. 3715–3733. DOI: 10.1093/mnras/stz1249. arXiv: 1811.02518 [astro-ph.CO].
- [Amon+18] A. Amon, C. Heymans, D. Klaes, T. Erben, C. Blake, H. Hildebrandt, H. Hoekstra, K. Kuijken, L. Miller, C. B. Morrison, A. Choi, J. T. A. de Jong, K. Glazebrook, N. Irisarri, B. Joachimi, S. Joudaki, **A. Kannawadi**, C. Lidman, N. Napolitano, D. Parkinson, P. Schneider, E. van Uitert, M. Viola, and C. Wolf. “KiDS-i-800: comparing weak gravitational lensing measurements from same-sky surveys”. In: *MNRAS* 477 (July 2018), pp. 4285–4307. DOI: 10.1093/mnras/sty859. arXiv: 1707.04105.

Pre-prints currently on arXiv

- [Yan+21] Z. Yan, L. van Waerbeke, T. Tröster, A. H. Wright, D. Alonso, M. Asgari, M. Bilicki, T. Erben, S. Gu, C. Heymans, H. Hildebrandt, G. Hinshaw, N. Koukoufilippas, **A. Kannawadi**, K. Kuijken, A. Mead, and H. Shan. “Probing Galaxy Bias and Intergalactic Gas Pressure with KiDS Galaxies-tSZ-CMB Lensing Cross-correlations”. In: *arXiv e-prints*, arXiv:2102.07701 (Feb. 2021), arXiv:2102.07701. arXiv: 2102.07701 [astro-ph.CO].
- [Geo+21] C. Georgiou, H. Hoekstra, K. Kuijken, M. Bilicki, A. Dvornik, T. Erben, B. Giblin, C. Heymans, H. Hildebrandt, J. T. A. de Jong, **A. Kannawadi**, P. Schneider, T. Schrabback, H. Shan, and A. H. Wright. “Halo shapes constrained from a pure sample of central galaxies in KiDS-1000”. In: *arXiv e-prints*, arXiv:2102.03549 (Feb. 2021), arXiv:2102.03549. arXiv: 2102.03549 [astro-ph.GA].
- [Bil+21] M. Bilicki, A. Dvornik, H. Hoekstra, A. H. Wright, N. E. Chisari, M. Vakili, M. Asgari, B. Giblin, C. Heymans, H. Hildebrandt, B. W. Holwerda, A. Hopkins, H. Johnston, **A. Kannawadi**, K. Kuijken, S. J. Nakoneczny, H. Y. Shan, A. Sonnenfeld, and E. Valentijn. “Bright galaxy sample in the Kilo-Degree Survey Data Release 4: selection, photometric redshifts, and physical properties”. In: *arXiv e-prints*, arXiv:2101.06010 (Jan. 2021), arXiv:2101.06010. arXiv: 2101.06010 [astro-ph.GA].
- [Rob+20] N. C. Robertson, D. Alonso, J. Harnois-Déraps, O. Darwish, **A. Kannawadi**, A. Amon, M. Asgari, M. Bilicki, E. Calabrese, S. K. Choi, M. J. Devlin, J. Dunkley, A. Dvornik, T. Erben, S. Ferraro, M. C. Fortuna, B. Giblin, D. Han, C. Heymans, H. Hildebrandt, J. C. Hill, M. Hilton, S. P. Ho, H. Hoekstra, et al. “Strong detection of the CMB lensing \times galaxy weak lensing cross-correlation from ACT-DR4, PlanckLegacy and KiDS-1000”. In: *arXiv e-prints*, arXiv:2011.11613 (Nov. 2020), arXiv:2011.11613. arXiv: 2011.11613 [astro-ph.CO].
- [Trö+20a] T. Tröster, M. Asgari, C. Blake, M. Cataneo, C. Heymans, H. Hildebrandt, B. Joachimi, C. -A. Lin, A. G. Sánchez, A. H. Wright, M. Bilicki, B. Bose, M. Crocce, A. Dvornik, T. Erben, B. Giblin, K. Glazebrook, H. Hoekstra, S. Joudaki, **A. Kannawadi**, F. Köhlinger, K. Kuijken, C. Lidman, L. Lombriser, et al. “KiDS-1000 Cosmology: constraints beyond flat Λ CDM”. In: *arXiv e-prints*, arXiv:2010.16416 (Oct. 2020), arXiv:2010.16416. arXiv: 2010.16416 [astro-ph.CO].
- [Nak+20] S. J. Nakoneczny, M. Bilicki, A. Pollo, M. Asgari, A. Dvornik, T. Erben, B. Giblin, C. Heymans, H. Hildebrandt, **A. Kannawadi**, K. Kuijken, N. R. Napolitano, and E. Valentijn. “Photometric selection and redshifts for quasars in the Kilo-Degree Survey Data Release 4”. In: *arXiv e-prints*, arXiv:2010.13857 (Oct. 2020), arXiv:2010.13857. arXiv: 2010.13857 [astro-ph.CO].
- [Vak+20] M. Vakili, H. Hoekstra, M. Bilicki, M. C. Fortuna, K. Kuijken, A. H. Wright, M. Asgari, M. Brown, E. Dombrovskij, T. Erben, B. Giblin, C. Heymans, H. Hildebrandt, H. Johnston, S. Joudaki, and **A. Kannawadi**. “Clustering of red-sequence galaxies in the fourth data release of the Kilo-Degree Survey”. In: *arXiv e-prints*, arXiv:2008.13154 (Aug. 2020), arXiv:2008.13154. arXiv: 2008.13154 [astro-ph.CO].

[Hil+20a] H. Hildebrandt, J. L. van den Busch, A. H. Wright, C. Blake, B. Joachimi, K. Kuijken, T. Tröster, M. Asgari, M. Bilicki, J. T. A. de Jong, A. Dvornik, T. Erben, F. Getman, B. Giblin, C. Heymans, **A. Kannawadi**, C. -A. Lin, and H. -Y. Shan. “KiDS-1000 catalogue: Redshift distributions and their calibration”. In: *arXiv e-prints*, arXiv:2007.15635 (July 2020), arXiv:2007.15635. arXiv: 2007.15635 [astro-ph.CO].

Papers in preparation

The titles link to the live version of the drafts

A. Kannawadi et al. “*The impact of Interpixel Capacitance in hybrid-CMOS detectors on shear calibration biases for WFIRST*”.

H. Hoekstra, **A. Kannawadi** & L. Miller “*A study of instrumental effects in OmegaCAM data*”.

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