BRENDON J. BREWER

Department of Statistics, The University of Auckland
Private Bag 92019, Auckland 1142, New Zealand

https://brendonbrewer.com/
(contact details available on website)

EDUCATION

The University of Sydney *2005–2008*
PhD (Astrophysics)
Charlene Heisler Prize for best PhD thesis (Astronomical Society of Australia)

The University of Sydney *2001–2004*
BSc (Advanced) (Physics)
Honours Class I and the University Medal

POSITIONS HELD

The University of Auckland July 2012–Present
Senior Lecturer (appointed Lecturer, promoted 2014 & 2019) *Auckland, New Zealand*

LBRY Inc May 2021–Present
Protocol Engineer (Casual) *https://lbry.com*

University of California, Santa Barbara June 2009–June 2012
Postdoctoral Scholar *Santa Barbara, CA, USA*

The University of New South Wales May 2008–January 2009
Research Associate *Kensington, NSW, Australia*

GRANTS AND AWARDS

2018–2020, Primary Investigator, Faculty Research and Development Fund, Faculty of Science, The University of Auckland.
2013–2016, Primary Investigator, Marsden Fast Start Grant, Royal Society of New Zealand (Total value $300,000 NZD)
2016, Teaching commendation from Dean of Science
2014, Finalist, The Prime Minister's MacDiarmid Emerging Scientist Prize
2009, Charlene Heisler Prize (best PhD thesis, Astronomical Society of Australia)
2006, Best talk, Mt Stromlo Xmas Student Symposium
2003, 2001, Cadbury-Schweppes Julius Sumner Miller Scholarship, The University of Sydney
2002, Science Foundation Scholarship, The University of Sydney

SKILLS

Programming	C++, Python, Haskell, R.
Computing	GNU/Linux, LaTeX, git, JAGS, LBRY protocol, SQLite
Languages	English (native speaker), Spanish (A2/B1 level, not certified)

SERVICE

From 2015 to 2017 I was a member of the editorial board for the journal *Entropy*. I have also reviewed a book for Cambridge University Press, and papers for journals including Publications of the Astronomical Society of Australia, The Astrophysical Journal, Monthly Notices of the Royal Astronomical Society, The Open Astronomy Journal, MaxEnt Conference Proceedings 2009 & 2013, Entropy, Annalen der Physik, the Australian and New Zealand Journal of Statistics, and the Journal of Quantitative Analysis in Sports.

I was part of the local organising committee for the following conferences: MaxEnt 2013 (Canberra, Australia, December 2013), Oz Lens (The University of Sydney, 2008), and Dark2007 (The University of Sydney, 2007).

I am a member of Heterodox Academy.

RESEARCH STUDENTS

[1] = as primary supervisor
[2] = as co-supervisor (half-share or approximately so)
[3] = as co-supervisor (minor share)

Current

Joshua Dawes[1]	MSc, The University of Auckland, 2021
Cher Li[1]	BSc (Hons), The University of Auckland, 2021

Completed

Oliver Stevenson[1]	PhD, The University of Auckland, 2017–2021
Mat Varidel[3]	PhD, The University of Sydney, 2016–2021
Hannah Jamieson[1]	MSc, The University of Auckland, 2020
Tom Elliott[3]	PhD, The University of Auckland, 2015–2020
David Huijser[1]	PhD, The University of Auckland, 2013–2020
Yiwei Li[1]	BSc (Hons), The University of Auckland, 2019
Saurabh Gupta[1]	MSc, The University of Auckland, 2018
Satnam Singh[1]	MSc, The University of Auckland, 2017–2018
Patricio Maturana Russel[2]	PhD, The University of Auckland, 2013–2017
Syarafana Abdul Rahman[1]	BSc (Hons), The University of Auckland, 2017
Tim Chen[1]	MSc, The University of Auckland, 2016–2017
Oliver Stevenson[1]	MSc, The University of Auckland, 2016–2017
John Wilcox[2]	MA, The University of Auckland, 2015–2016
Yilin Guo[1]	BSc (Hons), The University of Auckland, 2015
Anna Pancoast[3]	PhD, UC Santa Barbara, 2009–2015
Courtney Donovan[1]	BSc (Hons), The University of Auckland, 2014
Tom Elliott[1]	BSc (Hons), The University of Auckland, 2013
Ryan Feyter[1]	Summer Scholar, The University of Auckland, 2012/2013
Timothy White[3]	BSc (Hons), The University of Sydney, 2009

TEACHING EXPERIENCE

Statistical Computing (2021)
Postgraduate course, ∼50 students.

Bayesian Inference (2021, 2020, 2019)
Postgraduate course, ∼15 students.

Data Technologies (2020, 2019, 2018, 2017, 2016, 2015), The University of Auckland
Second year undergraduate course, ∼120 students.

Introduction to Bayesian Statistics (2019, 2017, 2016, 2014, 2013, 2012), The University of Auckland
Third year undergraduate course, ∼100 students.

Applied Stochastic Modelling (2017)
Third year undergraduate course, ∼40 students.

Introduction to Operations Research (2014, 2013), The University of Auckland
Second year undergraduate course, ∼100 students.

Bayesian Reasoning (2009), The University of Sydney
Physics Honours half-course, ∼20 students. Guest lecturer, contributed assignment and exam questions.

INVITED TALKS

Only accepted invitations are listed here.

2017, Invited Lecturer, Data Analysis and Statistics Workshop, European Space Astronomy Centre, Madrid, Spain
2015, Invited Lecturer, Astro Hack Week, New York University, NY, USA
2014, Invited Lecturer, XXVI Canary Islands Winter School of Astrophysics
2012, Stanford Cosmology Seminar, Stanford University, CA, USA
2011, Statistical Challenges in Modern Astronomy V, Pennsylvania State University, PA, USA
2011, Center for Time Domain Informatics, UC Berkeley, CA, USA
2009, Caltech Astronomy Seminar, Caltech, CA, USA
2008, Interpretation of Asteroseismic Data, Wrocław, Poland

RESEARCH INTERESTS

Bayesian inference, information theory, and related topics
Nested Sampling
Astrostatistics: Applications in gravitational lensing, reverberation mapping, asteroseismology
Sports Statistics
LBRY protocol

PEER-REVIEWED PUBLICATIONS

64 peer-reviewed publications (19 as first author)
Summaries from Google Scholar: 3363 total citations, h-index of 32

1. *Dynamical Modeling of the C IV Broad Line Region of the z = 2.805 Multiply Imaged Quasar SDSS J2222+2745*
   Williams, Peter R., Treu, Tommaso, Dahle, Håkon, Valenti, Stefano, Abramson, Louis, Barth,

Aaron J., **Brewer, Brendon J.**, Dyrland, Karianne, Gladders, Michael, Horne, Keith, Sharon, Keren, 2021, The Astrophysical Journal Letters, Volume 915, Issue 1, id.L9, 6 pp.

2. *Space Telescope and Optical Reverberation Mapping Project. XII. Broad-Line Region Modeling of NGC 5548*
   P. R. Williams, A. Pancoast, T. Treu, **B. J. Brewer**, and many coauthors, 2020, The Astrophysical Journal, Volume 902(1), 74.

3. *Finding your feet: a Gaussian process model for estimating the abilities of batsmen in Test cricket*
   Stevenson, O. G. and **Brewer, B. J.**, 2021, Finding your feet: A Gaussian process model for estimating the abilities of batsmen in test cricket. J R Stat Soc Series C, 70: 481-506. `https://doi.org/10.1111/rssc.12470`

4. *Properties of the Affine Invariant Ensemble Sampler in high dimensions*
   David Huijser, Jesse Goodman, **Brendon J. Brewer**, 2015, accepted for publication in the Australia and New Zealand Journal of Statistics. arxiv: 1509.02230

5. *The Globular Cluster Population of NGC 1052-DF2: Evidence for Rotation*
   Geraint F. Lewis, **Brendon J. Brewer**, and Zhen Wan, 2020, Monthly Notices of the Royal Astronomical Society: Letters, Volume 491, Issue 1, p. L1–L5.

6. *Two major accretion epochs in M31 from two distinct populations of globular clusters*
   Dougal Mackey, Geraint F. Lewis, **Brendon J. Brewer**, Annette M. N. Ferguson, Jovan Veljanoski, Avon P. Huxor, Michelle L. M. Collins, Patrick Côté, Rodrigo A. Ibata, Mike J. Irwin, Nicolas Martin, Alan W. McConnachie, Jorge Peñarrubia, Nial Tanvir, Zhen Wan, 2019, Nature 574 (7776), 69-71.

7. *The SAMI Galaxy Survey: Bayesian Inference for Gas Disk Kinematics using a Hierarchical Gaussian Mixture Model*
   Mathew R. Varidel, Scott M. Croom, Geraint F. Lewis, **Brendon J. Brewer**, Enrico M. Di Teodoro, and more coauthors, 2019, Monthly Notices of the Royal Astronomical Society, 485, 4024.

8. *Model selection and parameter inference in phylogenetics using Nested Sampling*
   Patricio Maturana R, **Brendon J. Brewer**, Steffen Klaere, and Remco Bouckaert, 2019, Systematic Biology 68, 219–233

9. *The Lick AGN Monitoring Project 2011: Photometric Light Curves*
   Anna Pancoast and many coauthors including **Brendon J. Brewer**, 2019, The Astrophysical Journal, 871, 108.

10. *Modelling career trajectories of cricket players using Gaussian processes*
    Stevenson, O. G. and **Brewer, B. J.** (2019) In: Argiento R., Durante D., Wade S. (eds) Bayesian Statistics and New Generations. BAYSM 2018. Springer Proceedings in Mathematics & Statistics, vol 296. Springer, Cham

11. *The Lick AGN Monitoring Project 2011: Dynamical Modeling of the Broad-Line Region*
    Peter R. Williams, Anna Pancoast, Tommaso Treu, **Brendon J. Brewer**, Aaron J. Barth, and many coauthors. 2018, The Astrophysical Journal, 866(2), 75.

12. *DNest4: Diffusive Nested Sampling in C++ and Python*
    Brendon J. Brewer and Daniel Foreman-Mackey, 2018, Journal of Statistical Software, 86(7), 1–33. `https://dx.doi.org/10.18637/jss.v086.i07`.

13. *AMORPH: A statistical program for characterizing amorphous materials by X-ray diffraction*
Michael C. Rowe, **Brendon J. Brewer**, 2018, Computers and Geosciences, Volume 120, p. 21–31.

14. *kima: Exoplanet detection in radial velocities*
J. P. Faria, N. C. Santos, P. Figueira, and **B. J. Brewer**, 2018, Journal of Open Source Software, 3(26), 487, `https://doi.org/10.21105/joss.00487`

15. *Stability of the broad line region geometry and dynamics in Arp 151 over seven years*
A. Pancoast, A. J. Barth, K. Horne, T. Treu, **B. J. Brewer**, and many coauthors, 2018, The Astrophysical Journal, 856, 108.

16. *Computing Entropies with Nested Sampling*
Brendon J. Brewer, 2017, Entropy, 19, 422.

17. *The Structure of the Broad-Line Region In Active Galactic Nuclei. II. Dynamical Modeling of Data from the AGN10 Reverberation Mapping Campaign*
C. J. Grier, A. Pancoast, A. J. Barth, M. M. Fausnaugh, **B. J. Brewer**, T. Treu, B. M. Peterson, 2017, The Astrophysical Journal, 849, 2.

18. *Bayesian survival analysis of batsmen in Test cricket*
Oliver G. Stevenson and **Brendon J. Brewer**, 2017, Journal of Quantitative Analysis in Sports, 13(1): 25–36.

19. *Red nuggets grow inside-out: evidence from gravitational lensing*
Lindsay Oldham, Matthew W. Auger, Christopher D. Fassnacht, Tommaso Treu, **Brendon J. Brewer**, L.V.E. Koopmans, David Lagattuta, Philip Marshall, John McKean, Simona Vegetti, 2017, Monthly Notices of the Royal Astronomical Society, 465, 3185.

20. *The elusive stellar halo of the Triangulum Galaxy*
B. McMonigal, G. F. Lewis, **B. J. Brewer**, M. J. Irwin, N. F. Martin, A. W. McConnachie, R. A. Ibata, A. M. N. Ferguson, A. D. Mackey, S. C. Chapman, 2016, Monthly Notices of the Royal Astronomical Society, 461, 4374.

21. *Uncovering the planets and stellar activity of CoRoT-7 using only radial velocities*
J. P. Faria, R. D. Haywood, **B. J. Brewer**, P. Figueira, M. Oshagh, A. Santerne, N. C. Santos, 2016, Astronomy & Astrophysics, 588, A31.

22. *Trans-Dimensional Bayesian Inference for Gravitational Lens Substructures*
Brendon J. Brewer, David Huijser, Geraint F. Lewis, 2016, Monthly Notices of the Royal Astronomical Society, 455, 1819-1829.

23. *Space Telescope and Optical Reverberation Mapping Project. IV. Anomalous behavior of the broad ultraviolet emission lines in NGC 5548.*
M. R. Goad and many co-authors (including **B. J. Brewer**), 2016, The Astrophysical Journal, 824, 11.

24. *Space Telescope and Optical Reverberation Mapping Project. III. Optical Continuum Emission and Broad-Band Time Delays in NGC 5548*
M. M. Fausnaugh and many co-authors (including **B. J. Brewer**), 2016, The Astrophysical Journal 821, 56.

25. *The Lick AGN Monitoring Project 2011: Spectroscopic Campaign and Emission-Line Light Curves*

Barth, A. J. and many coauthors (including **B. J. Brewer**), 2015, The Astrophysical Journal Supplement Series, 217, 26.

26. *Fast Bayesian Inference for Exoplanet Discovery in Radial Velocity Data*
Brendon J. Brewer, Courtney P. Donovan, 2015, Monthly Notices of the Royal Astronomical Society, 446, 3206.

27. *Dissecting magnetar variability with Bayesian hierarchical models*
D. Huppenkothen, **B. J. Brewer**, D. W. Hogg, I. Murray, M. Frean, C. Elenbaas, A. L. Watts, Y. Levin, A. J. van der Horst, C. Kouveliotou, 2015, The Astrophysical Journal, 810, 66.

28. *Space Telescope and Optical Reverberation Mapping Project. II. Swift and HST Reverberation Mapping of the Accretion Disk of NGC 5548* R. Edelson and many coauthors (including **B. J. Brewer**), 2015, The Astrophysical Journal, 806, 129.

29. *Space Telescope and Optical Reverberation Mapping Project. I. Ultraviolet Observations of the Seyfert 1 Galaxy NGC 5548 with the Cosmic Origins Spectrograph on Hubble Space Telescope* G. De Rosa and many coauthors (including **B. J. Brewer**), 2015, The Astrophysical Journal, 806, 128.

30. *Modeling reverberation mapping data I: improved geometric and dynamical models and comparison with cross-correlation results*
Anna Pancoast, **Brendon J. Brewer**, Tommaso Treu, 2014, Monthly Notices of the Royal Astronomical Society, 445, 3055.

31. *Modeling reverberation mapping data II: dynamical modeling of the Lick AGN Monitoring Project 2008 dataset*
Anna Pancoast, **Brendon J. Brewer**, Tommaso Treu, Daeseong Park, Aaron J. Barth, Misty C. Bentz, Jong-Hak Woo, 2014, Monthly Notices of the Royal Astronomical Society, 445, 3073.

32. *Hierarchical Reverberation Mapping*
Brendon J. Brewer, Tom M. Elliott, 2013, Monthly Notices of the Royal Astronomical Society, 439, L31.

33. *The SWELLS Survey. VI. hierarchical inference of the initial mass functions of bulges and discs*
Brendon J. Brewer, Philip J. Marshall, Matthew W. Auger, Tommaso Treu, Aaron A. Dutton, Matteo Barnabè, 2014, Monthly Notices of the Royal Astronomical Society, 437, 1950.

34. *A transdimensional Bayesian method to infer the star formation history of resolved stellar populations*
J. J. Walmswell, J. J. Eldridge, **B. J. Brewer** and C. A. Tout, 2013, Monthly Notices of the Royal Astronomical Society, 435, 2171.

35. *Probabilistic Catalogs for Crowded Stellar Fields*
Brendon J. Brewer, Daniel Foreman-Mackey, David W. Hogg, 2013, The Astronomical Journal, 146, 7.

36. *The Lick AGN Monitoring Project 2011: Fe II Reverberation from the Outer Broad-Line Region* Aaron J. Barth, Anna Pancoast, Vardha N. Bennert, **Brendon J. Brewer**, and many coauthors, 2013, The Astrophysical Journal, 769, 128.

37. *The SWELLS survey - V. A Salpeter stellar initial mass function in the bulges of massive spiral galaxies*
A. A. Dutton, T. Treu, **B. J. Brewer**, P. J. Marshall, M. W. Auger, M. Barnabè, D. C. Koo,

A. S. Bolton, L. V. E. Koopmans, 2013, Monthly Notices of the Royal Astronomical Society, 428, 3183.

38. *The Lick AGN Monitoring Project 2011: Dynamical Modeling of the Broad Line Region in Mrk50*
Anna Pancoast, **Brendon J. Brewer**, Tommaso Treu, Aaron J. Barth and many coauthors, 2012, The Astrophysical Journal, 754, 49.

39. *The SWELLS survey. IV. Precision measurements of the stellar and dark matter distributions in a spiral lens galaxy*
Matteo Barnabè, Aaron A. Dutton, Philip J. Marshall, Matthew W. Auger, **Brendon J. Brewer**, Tommaso Treu, Adam S. Bolton, David C. Koo, Léon V. E. Koopmans, 2012, Monthly Notices of the Royal Astronomical Society, 423, 1073.

40. *The SWELLS survey. III. Disfavouring "heavy" initial mass functions for spiral lens galaxies*
Brendon J. Brewer, Aaron A. Dutton, Tommaso Treu, Matthew W. Auger, Philip J. Marshall, Matteo Barnabè, Adam S. Bolton, David C. Koo, Léon V. E. Koopmans, 2012, Monthly Notices of the Royal Astronomical Society, 422, 3574.

41. *The Lick AGN Monitoring Project 2011: Reverberation Mapping of Markarian 50*
A. J. Barth and many coauthors (including **B. J. Brewer**), 2011, The Astrophysical Journal, 743, L4.

42. *The Mass of the Black Hole in Arp 151 from Bayesian Modeling of Reverberation Mapping Data*
Brendon J. Brewer, Tommaso Treu, Anna Pancoast, Aaron J. Barth, Vardha N. Bennert, Misty C. Bentz, Alexei V. Filippenko, Jenny E. Greene, Matthew A. Malkan, and Jong-Hak Woo, 2011, The Astrophysical Journal Letters, 733, L33.

43. *The SWELLS survey. II. Breaking the disk-halo degeneracy in the spiral galaxy gravitational lens SDSS J2141-0001*
A. A. Dutton, **B. J. Brewer**, P. J. Marshall, M. W. Auger, T. Treu, D. C. Koo, A. S. Bolton, B. P. Holden, L. V. E. Koopmans, 2011, Monthly Notices of the Royal Astronomical Society, 417, 1621.

44. *The SWELLS Survey. I. A large spectroscopically selected sample of edge-on late-type lens galaxies*
T.Treu, A. A. Dutton, M. W. Auger, P. J. Marshall, A. S. Bolton, **B. J. Brewer**, D. Koo, L. V. E. Koopmans, 2011, Monthly Notices of the Royal Astronomical Society, 417, 1601.

45. *Modelling of the Complex CASSOWARY/SLUGS Gravitational Lenses*
Brendon J. Brewer, Geraint F. Lewis, Vasily Belokurov, Michael J. Irwin, Terry J. Bridges, N. Wyn Evans, 2011, Monthly Notices of the Royal Astronomical Society, 412, 2521.

46. *Geometric and Dynamical Models of Reverberation Mapping Data*
Anna Pancoast, **Brendon J. Brewer**, Tommaso Treu, 2011, The Astrophysical Journal, 730, 139.

47. *Diffusive Nested Sampling*
Brendon J. Brewer, Livia B. Pártay, Gabor Csányi, 2011, Statistics and Computing, 21, 4, 649-656.

48. *A Compact Early-type Galaxy at z = 0.6 Under a Magnifying Lens: Evidence For Inside-out Growth*

M. W. Auger, T. Treu, **B. J. Brewer**, P. J. Marshall, 2010, Monthly Notices of the Royal Astronomical Society Letters, 411, L6.

49. *A comparison of Bayesian and Fourier methods for frequency determination in asteroseismology*
Timothy R. White, **Brendon J. Brewer**, Timothy R. Bedding, Dennis Stello, Hans Kjeldsen, 2010, Communications in Asteroseismology, 161, 39.

50. *AAOmega Observations of 47 Tucanae: Evidence for a Past Merger?*
Richard R. Lane, **Brendon J. Brewer**, Laszlo L. Kiss, Geraint F. Lewis, Rodrigo A. Ibata, Arnaud Siebert, Timothy R. Bedding, Peter Szekely, Gyula M. Szabo, 2010, The Astrophysical Journal Letters 711, L122-L126.

51. *Entropic Priors and Bayesian Model Selection*
B. J. Brewer and M. J. Francis, 2009, The 29th International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering. AIP Conference Proceedings, Volume 1193, pp. 179-186.

52. *Gaussian Process Modelling of Asteroseismic Data*
B. J. Brewer and D. Stello, 2009, Monthly Notices of the Royal Astronomical Society, 395, 2226.

53. *Unlensing HST Observations of the Einstein Ring 1RXS J1131-1231: A Bayesian Analysis*
B. J. Brewer, G. F. Lewis, 2008, Monthly Notices of the Royal Astronomical Society, 390, 39.

54. *A Molecular Einstein Ring at z=4.12: Imaging the Dynamics of a Quasar Host Galaxy Through a Cosmic Lens*
Dominik A. Riechers, Fabian Walter, **Brendon J. Brewer**, Christopher L. Carilli, Geraint F. Lewis, Frank Bertoldi and Pierre Cox, 2008, The Astrophysical Journal, 686, 851.

55. *Solar-like oscillations in the metal-poor subgiant nu Indi: II. Acoustic spectrum and mode lifetime*
F. Carrier, H. Kjeldsen, T. R. Bedding, **B. J. Brewer**, R. P. Butler, P. Eggenberger, F. Grundahl, C. McCarthy, A. Retter, C. G. Tinney, 2007, Astronomy and Astrophysics, 470, 1059.

56. *Solar-like oscillations in the G2 subgiant beta Hydri from dual-site observations*
Timothy R. Bedding, Hans Kjeldsen, Torben Arentoft, Francois Bouchy, Jacob Brandbyge, **Brendon J. Brewer**, R. Paul Butler, Joergen Christensen-Dalsgaard, Thomas Dall, Soeren Frandsen, Christoffer Karoff, Laszlo L. Kiss, Mario J.P.F.G. Monteiro, Frank P. Pijpers, Teresa C. Teixeira, C. G. Tinney, Ivan K. Baldry, Fabien Carrier, Simon J. O'Toole, 2007, The Astrophysical Journal, 663, 1315.

57. *Bayesian Inference from Observations of Solar-Like Oscillations*
B. J. Brewer, T. R. Bedding, H. Kjeldsen and D. Stello, The Astrophysical Journal, 2007, 654, 551B.

58. *The evolution of host mass and black hole mass in QSOs from the 2dF QSO Redshift Survey*
S. Fine, S. M. Croom, L. Miller, A. Babic, D. Moore, **B. Brewer**, R. G. Sharp, B. J. Boyle, T. Shanks, R. J. Smith, P. J. Outram, N. S. Loaring, Monthly Notices of the Royal Astronomical Society, 2006, 373, 613F.

59. *Solar-like oscillations in the metal-poor subgiant nu Indi: constraining the mass and age using asteroseismology*
T. R. Bedding, R. P. Butler, F. Carrier, F. Bouchy, **B. J. Brewer**, P. Eggenberger, F. Grundahl,

H. Kjeldsen, C. McCarthy, T. B. Nielsen, A. Retter, C. G. Tinney, The Astrophysical Journal, 2006, 647, 558.

60. *The Einstein Ring 0047-2808 Revisited: A Bayesian Inversion*
B. J. Brewer and G. F. Lewis, The Astrophysical Journal, 2006, 651, 8.

61. *Strong Gravitational Lens Inversion: A Bayesian Approach*
B. J. Brewer and G. F. Lewis, The Astrophysical Journal, 2006, 637, 608.

62. *The light curve of the semiregular variable L2 Puppis: II. Evidence for solar-like excitation of the oscillations*
T. R. Bedding, L. L. Kiss, H. Kjeldsen, **B. J. Brewer**, Z. E. Dind, S. D. Kawaler, A. A. Zijlstra, Monthly Notices of the Royal Astronomical Society, 2005, 361, 1375.

63. *Probing Sub parsec Structure in the Lyman Alpha Forest with Gravitational Microlensing*
B. J. Brewer and G. F. Lewis, Monthly Notices of the Royal Astronomical Society, 2005, 356, 703.

64. *When Darwin met Einstein: Gravitational Lens Inversion with Genetic Algorithms*
B. J. Brewer and G. F. Lewis, Publications of the Astronomical Society of Australia, 2005, 22, 128.

OTHER PUBLICATIONS AND CONTRIBUTIONS

1. *Predicting NRL Matches in 2021*
   Brendon J. Brewer, 2021, published to lbry://@BrendonBrewer:3/nrl2021:3.
2. *Research Note: A Connection Between Nested Sampling and Information Geometry*
   Brendon J. Brewer, 2020, published to lbry://@BrendonBrewer:3/ns-ig:6.
3. *DNest4 for Statisticians*
   Brendon J. Brewer, 2020, published to lbry://@BrendonBrewer:3/dfs:5.
4. Co-founder and developer, lbrynomics.com.
5. Developer of trending algorithms for Odysee and LBRY. Source code here.
6. *Bayesian Inference and Computation: A Beginner's Guide*
   Brendon J. Brewer, 2018, chapter in Ramos, Andrés Asensio, and Iñigo Arregui, eds. Bayesian Astrophysics. Vol. 26. Cambridge University Press.
7. *What Experts Do and Don't Know*
   Brendon J. Brewer, 2016, article in Quillette.
8. *The Mathematics of Happiness*
   Brendon J. Brewer, 2016, article in Quillette.
9. *Unscrambling the second law of thermodynamics*
   Brendon J. Brewer, 2016, article in Quillette.
10. *The Great Statistical Schism*
    Brendon J. Brewer, 2015, article in Quillette.
11. *Inference for Trans-dimensional Bayesian Models with Diffusive Nested Sampling*
    Brendon J. Brewer, 2014, arxiv: 1411.3921.
12. *33rd International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering (MaxEnt 2013)*
    Niven R. K., **Brewer, B.**, Paull, D., Shafi K. & Stokes B. (eds) (2014), Canberra, Australia, 15-20 Dec. 2013, AIP Conference Proceedings 1636, Melville USA, ISBN: 978-0- 7354-1275-0.
13. *Bayesian Analysis of Reverberation Mapping Data*
    Brendon J. Brewer, 2011, in Statistical Challenges in Modern Astronomy V.
14. *The Implications of the Early Formation of Life on Earth*
    Brendon J. Brewer, 2008, arxiv: 0807.4969
15. *Getting Your Eye In: A Bayesian Analysis of Early Dismissals in Cricket*
    Brendon J. Brewer, 2008, arxiv: 0801.4408