Rob J Hyndman

FAA, FASSA, BSc (Hons), PhD, AStat

Curriculum Vitae
December 2024

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Education and qualifications

B.Sc.(Hons)	University of Melbourne	1988
Ph.D.	University of Melbourne	1992
A.Stat.	Statistical Society of Australia	2000

Current position

2003– **Professor**, Department of Econometrics & Business Statistics, Monash University

Fellowships

- Fellow of the Australian Academy of Science (elected 2021).
- Fellow of the Academy of the Social Sciences in Australia (elected 2020).
- Fellow of the International Institute of Forecasters (elected 2021).

Selected awards and honours

2022	Australian Awards for University Teaching citation for outstanding contributions to student learning
2021	Pitman Medal, Statistical Society of Australia
2020	Dean's Award for Innovation in Learning and Teaching, Monash Business School
2010	Dean's Award for Excellence in Innovation and External Collaboration, Monash Business School
2010	HP Innovation Research Award
2008	Dean's award for Excellence in Research, Monash Business School
2008	Vice-Chancellor's award for postgraduate supervisor of the year, Monash University
2007	Moran Medal for Statistical Science, Australian Academy of Science
2005	Elected member of the International Statistical Institute

Teaching and mentoring

- In each year since 2018, student evaluations for "Applied forecasting for business and economics" gave an average rating for my teaching above 4.8 out of 5.
- I currently supervise six PhD students and one post-doctoral research fellow. I have previously supervised another 30 PhD students and 3 Masters students.
- I am author of an innovative textbook with George Athanasopoulos entitled *Forecasting: principles and practice* (`OTexts.org/fpp3/`) which is available online and free of charge. The website has an average of over 25000 pageviews per day.
- I publish the *Hyndsight* blog on research issues which receives an average of about 1500 pageviews per day.

Editorial boards

2023–	**Executive Editor**, *The R Journal*
2011–	**Editor**, *Journal of Statistical Software*
2001–2004	**Associate Editor**, *International Journal of Forecasting*
2019–	**Associate Editor**, *International Journal of Forecasting*
2005–2018	**Editor-in-Chief**, *International Journal of Forecasting*
2001–2004	**Theory and Methods Editor**, *Australian & New Zealand Journal of Statistics*
1996–2001	**Book Review Editor**, *Australian Journal of Statistics*

Society leadership

- Director, International Institute of Forecasters, 2005–2018.
- Member, Scientific Program Advisory Group, Statistical Society of Australia, 2001–2004
- Secretary, Victorian branch, Statistical Society of Australia, 1993–1995.
- Central Council member, Statistical Society of Australia, 1993–1996.

Research Grants

I have acquired (in most cases jointly) about $35.7 million in external research grants since 2000. Highlights include an ARC Centre of Excellence, an NHMRC Centre of Excellence, an ARC Industrial Training Transformation Centre, 4 ARC Discovery Grants, 3 ARC Linkage Grants, 1 NHMRC Grant, and contract research grants from many government and business organizations.

Selected public and keynote addresses

- Belz lecture, *Forecasting and the importance of being uncertain*, Statistical Society of Australia, Melbourne, Oct 2006.
- Knibbs lecture, *Population forecasting and the importance of being uncertain*, Statistical Society of Australia, Canberra, Nov 2007.
- Invited speaker, *Forecasting functional time series*, Australian Frontiers of Science, Canberra, Feb 2008.
- Keynote speaker, *Extreme Forecasting*, International Symposium on Forecasting, Hong Kong, Jun 2009.
- Keynote speaker, *Man vs Wild Data*, Young Statisticians Conference, Melbourne, Feb 2013.
- Keynote speaker, *Forecasting without forecasters*, International Symposium on Forecasting, Seoul, Jun 2013.
- Keynote speaker, *Automatic time series forecasting*, "New Trends on Intelligent Systems and Soft Computing 2014", Granada, Spain, Feb 2014.
- Keynote speaker, *Challenges in forecasting peak electricity demand*, Energy Forum, Valais, Switzerland, Jun 2014.
- Yahoo Big Thinkers lecture, *Exploring the boundaries of predictability: what can we forecast, and when should we give up?*, California, Jun 2015.
- Keynote speaker, *Forecasting big time series data using R*, Chinese R conference, Nanchang, Oct 2015.
- Keynote speaker, *Forecasting large collections of related time series*, German Statistical Week, Augsburg, Sep 2016.
- Keynote speaker, *Visualizing and forecasting big time series data*, ICML Time Series Workshop, Sydney, Aug 2017.
- Keynote speaker, Beijing Workshop on Forecasting, Nov 2017.
- Keynote speaker, *10 years of forecast reconciliation*, International Symposium on Forecasting, Oct 2020.
- ACEMS public address, *Uncertain futures: what can we forecast and when should we give up?*, Aug 2021.
- Blakers lecture, *Forecasting the future and the future of forecasting*, ANU-AAMT National Mathematics Summer School, Jan 2022.
- Keynote speaker, *Visualization of complex seasonal patterns in time series*, 800 year anniversary, University of Padua, Sep 2022.
- ANU public lecture, *Forecasting the future and the future of forecasting*, Canberra, Nov 2022.
- IIF Distinguished Lecturer, *Forecast reconciliation*, online series of lectures, Nov 2023.
- Suessmilch lecture, *vital: Tidy data analysis for demography using R*, Rostock, Germany, Jun 2024.

Advisory boards

- Member of the Scaling committee, Victorian Tertiary Admissions Centre (1994–). This committee is responsible for producing the ATAR for VCE students.
- Member of the ATAR Technical Group for the Australasian Conference of Tertiary Admissions Centres (2003–).
- Member of the Indigenous Statistical and Information Advisory Group for the Australian Institute of Health and Welfare (2017–).
- Member of the Methodology Advisory Committee for the Australian Bureau of Statistics (2010–2018).

Conference organization

- General Chair, International Symposium on Forecasting, 2017
- Program Chair, International Symposium on Forecasting, 2012.
- Program Co-Chair, International Symposium on Forecasting, 2004.

R packages

I have coauthored 63 R packages as a result of my research. There have been over 123 million downloads of my packages since 2015 (to 1 December 2024).

Selected books

1. Makridakis, SG, SC Wheelwright, and RJ Hyndman (1998). *Forecasting: methods and applications*. 3rd ed. New York: John Wiley & Sons. http://robjhyndman.com/forecasting/. *[Citations: 7933]*.
2. Hyndman, RJ, AB Koehler, JK Ord, and RD Snyder (2008). *Forecasting with exponential smoothing: the state space approach*. Berlin: Springer-Verlag. http://robjhyndman.com/expsmooth. *[Citations: 2188]*.
3. Hyndman, RJ and G Athanasopoulos (2021). *Forecasting: principles and practice*. 3rd ed. Melbourne, Australia: OTexts. http://OTexts.org/fpp3. *[Citations: 9366]*.

Research

- Since 1991 I have authored 254 papers, chapters or books on statistical topics. A selection of these are listed below.
- On Google Scholar my h-index is 84 with total citations of 66,852 (as at 1 December 2024).

Selected research papers[1]

1. Hyndman, RJ (1996). Computing and graphing highest density regions. *The American Statistician* **50**(2), 120–126. *[Citations: 877]*.
2. Hyndman, RJ, DM Bashtannyk, and GK Grunwald (1996). Estimating and visualizing conditional densities. *J Computational & Graphical Statistics* **5**(4), 315–336. *[Citations: 480]*.

[1] Citations from Google Scholar on 1 December 2024.

3. Hyndman, RJ and Y Fan (1996). Sample quantiles in statistical packages. *The American Statistician* **50**(4), 361–365. *[Citations: 1472]*.
4. Hyndman, RJ, AB Koehler, RD Snyder, and S Grose (2002). A state space framework for automatic forecasting using exponential smoothing methods. *International J Forecasting* **18**(3), 439–454. *[Citations: 1436]*.
5. Booth, H, RJ Hyndman, L Tickle, and P de Jong (2006). Lee-Carter mortality forecasting: a multi-country comparison of variants and extensions. *Demographic Research* **15**(9), 289–310. *[Citations: 388]*.
6. de Gooijer, JG and RJ Hyndman (2006). 25 years of time series forecasting. *International J Forecasting* **22**(3), 443–473. *[Citations: 1669]*.
7. Hyndman, RJ and AB Koehler (2006). Another look at measures of forecast accuracy. *International J Forecasting* **22**(4), 679–688. *[Citations: 6546]*.
8. Wang, X, KA Smith-Miles, and RJ Hyndman (2006). Characteristic-based clustering for time series data. *Data Mining and Knowledge Discovery* **13**(3), 335–364. *[Citations: 904]*.
9. Hyndman, RJ and S Ullah (2007). Robust forecasting of mortality and fertility rates: A functional data approach. *Computational Statistics & Data Analysis* **51**(10), 4942–4956. *[Citations: 982]*.
10. Hyndman, RJ and H Booth (2008). Stochastic population forecasts using functional data models for mortality, fertility and migration. *International J Forecasting* **24**(3), 323–342. *[Citations: 364]*.
11. Hyndman, RJ and Y Khandakar (2008). Automatic time series forecasting: the forecast package for R. *J Statistical Software* **26**(3), 1–22. *[Citations: 5134]*.
12. Hyndman, RJ and S Fan (2010). Density forecasting for long-term peak electricity demand. *IEEE Transactions on Power Systems* **25**(2), 1142–1153. *[Citations: 465]*.
13. Verbesselt, J, RJ Hyndman, G Newnham, and D Culvenor (2010). Detecting trend and seasonal changes in satellite image time series. *Remote Sensing of Environment* **114**(1), 106–115. *[Citations: 1990]*.
14. De Livera, AM, RJ Hyndman, and RD Snyder (2011). Forecasting time series with complex seasonal patterns using exponential smoothing. *J American Statistical Association* **106**(496), 1513–1527. *[Citations: 1308]*.
15. Hyndman, RJ, RA Ahmed, G Athanasopoulos, and HL Shang (2011). Optimal combination forecasts for hierarchical time series. *Computational Statistics & Data Analysis* **55**(9), 2579–2589. *[Citations: 627]*.
16. Hyndman, RJ, H Booth, and F Yasmeen (2013). Coherent mortality forecasting: the product-ratio method with functional time series models. *Demography* **50**(1), 261–283. *[Citations: 375]*.
17. Hong, T, P Pinson, S Fan, H Zareipour, A Troccoli, and RJ Hyndman (2016). Probabilistic Energy Forecasting: Global Energy Forecasting Competition 2014 and Beyond. *International J Forecasting* **32**(3), 896–913. *[Citations: 991]*.
18. Athanasopoulos, G, RJ Hyndman, N Kourentzes, and F Petropoulos (2017). Forecasting with temporal hierarchies. *European J Operational Research* **262**(1), 60–74. *[Citations: 339]*.
19. Bergmeir, C, RJ Hyndman, and B Koo (2018). A note on the validity of cross-validation for evaluating autoregressive time series prediction. *Computational Statistics & Data Analysis* **120**, 70–83. *[Citations: 715]*.
20. Wickramasuriya, SL, G Athanasopoulos, and RJ Hyndman (2019). Optimal forecast reconciliation for hierarchical and grouped time series through trace minimization. *J American Statistical Association* **114**(526), 804–819. *[Citations: 385]*.
21. Hyndman, RJ (2020). A brief history of forecasting competitions. *International J Forecasting* **36**(1), 7–14. *[Citations: 168]*.
22. Kang, Y, RJ Hyndman, and F Li (2020). GRATIS: GeneRAting TIme Series with diverse and controllable characteristics. *Statistical Analysis and Data Mining* **13**(4), 354–376. *[Citations: 150]*.
23. Makridakis, S, RJ Hyndman, and F Petropoulos (2020). Forecasting in social settings: the state of the art. *International J Forecasting* **36**(1), 15–28. *[Citations: 158]*.
24. Talagala, PD, RJ Hyndman, K Smith-Miles, S Kandanaarachchi, and MA Muñoz (2020). Anomaly detection in streaming nonstationary temporal data. *J Computational & Graphical Statistics* **20**(1), 13–27. *[Citations: 68]*.
25. Ben Taieb, S, JW Taylor, and RJ Hyndman (2021). Hierarchical Probabilistic Forecasting of Electricity Demand with Smart Meter Data. *J American Statistical Association* **116**(533), 27–43. *[Citations: 150]*.
26. Kandanaarachchi, S and RJ Hyndman (2021). Dimension reduction for outlier detection using DOBIN. *J Computational & Graphical Statistics* **30**(1), 204–219. *[Citations: 12]*.
27. Talagala, PD, RJ Hyndman, and K Smith-Miles (2021). Anomaly detection in high-dimensional data. *J Computational & Graphical Statistics* **30**(2), 360–374. *[Citations: 65]*.
28. Ashouri, M, RJ Hyndman, and G Shmueli (2022). Fast forecast reconciliation using linear models. *J Computational & Graphical Statistics* **31**(1), 263–282. *[Citations: 12]*.
29. Panagiotelis, A, P Gamakumara, G Athanasopoulos, and RJ Hyndman (2023). Probabilistic forecast reconciliation: properties, evaluation and score optimisation. *European J Operational Research* **306**(2), 693–706. *[Citations: 64]*.
30. Wang, X, RJ Hyndman, F Li, and Y Kang (2023). Forecast combinations: an over 50-year review. *International J Forecasting* **39**(4), 1518–1547. *[Citations: 155]*.
31. Athanasopoulos, G, RJ Hyndman, N Kourentzes, and A Panagiotelis (2024). Forecast reconciliation: a review. *International J Forecasting* **40**(2), 430–456. *[Citations: 35]*.
32. Girolimetto, D, G Athanasopoulos, T Di Fonzo, and RJ Hyndman (2024). Cross-temporal probabilistic forecast reconciliation: Methodological and practical issues. *International J Forecasting* **40**(3), 1134–1151. *[Citations: 8]*.