Rob J Hyndman

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

Curriculum Vitae

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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 positions

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
- 2021 Elected Fellow of the Australian Academy of Science
- 2021 Elected Fellow of the International Institute of Forecasters
- 2020 Elected Fellow of the Academy of the Social Sciences in 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 five PhD students and two post-doctoral research fellows. I have previously supervised another 27 PhD students and 3 Masters students.
- ➤ I am author of an innovative textbook with George Athanasopoulos entitled *Forecasting: principles and practice* (0Texts.org/fpp3/) which is available online and free of charge. The website has an average of over 20000 pageviews per day.
- ➤ I publish the Hyndsight blog on research issues which receives an average of about 2000 pageviews per day.

Editorial boards

Executive Editor, The R Journal
Editor, Journal of Statistical Software
Associate Editor, International Journal of Forecasting
Associate Editor, International Journal of Forecasting
Editor-in-Chief, International Journal of Forecasting
Theory and Methods Editor, Australian & New Zealand Journal of Statistics
Book Review Editor, Australian Journal of Statistics

Society leadership

- ➤ Member, Pearson Prize Committee, International Statistical Institute, 2017.
- ➤ 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 \$32.0 million in external research grants since 2000. Highlights include being CI on an ARC Centre of Excellence, CI on an ARC Industrial Transformation Training Centre, CI on 3 ARC Discovery Grants, CI on 3 ARC Linkage Grants, and CI on 1 NHMRC grant.

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.

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 57 R packages as a result of my research. There have been over 88 million downloads of my packages since 2015 (to 10 April 2023).

Selected books

- 1. Makridakis, SG, Wheelwright, SC, & Hyndman, RJ. (1998). Forecasting: Methods and applications (3rd ed). John Wiley & Sons. robjhyndman.com/forecasting/
- 2. Hyndman, RJ, Koehler, AB, Ord, JK, & Snyder, RD. (2008). Forecasting with exponential smoothing: The state space approach. Springer-Verlag. robjhyndman.com/expsmooth
- 3. Hyndman, RJ, & Athanasopoulos, G. (2021). Forecasting: Principles and practice (3rd ed). OTexts. OTexts.org/fpp3

Research

- ➤ Since 1991 I have authored 241 papers, chapters or books on statistical topics. A selection of these are listed below.
- ➤ On Google Scholar my h-index is 77 with total citations of 53,555 (as at 10 April 2023).

Selected research papers

- 1. Gupta, S, Hyndman, RJ, Cook, D, & Unwin, A. (2022). Visualizing probability distributions across bivariate cyclic temporal granularities. *J Computational & Graphical Statistics*, 31(1), 14–25.
- 2. Ashouri, M, Hyndman, RJ, & Shmueli, G. (2022). Fast forecast reconciliation using linear models. *J Computational & Graphical Statistics*, 31(1), 263–282.
- 3. Li, H, & Hyndman, RJ. (2021). Assessing mortality inequality in the US: What can be said about the future? *Insurance, Mathematics and Economics*, *99*, 152–162.

- 4. Ben Taieb, S, Taylor, JW, & Hyndman, RJ. (2021). Hierarchical probabilistic forecasting of electricity demand with smart meter data. *J American Statistical Association*, 116(533), 27–43.
- 5. Kandanaarachchi, S, & Hyndman, RJ. (2021). Dimension reduction for outlier detection using DOBIN. *J Computational & Graphical Statistics*, 30(1), 204–219.
- 6. Eckert, F, Hyndman, RJ, & Panagiotelis, A. (2021). Forecasting Swiss exports using Bayesian forecast reconciliation. *European J Operational Research*, 291(2), 693–710.
- 7. Talagala, PD, Hyndman, RJ, & Smith-Miles, K. (2021). Anomaly detection in high-dimensional data. *J Computational & Graphical Statistics*, 30(2), 360–374.
- 8. Hyndman, RJ. (2020). A brief history of forecasting competitions. *International J Forecasting*, 36(1), 7–14.
- 9. Makridakis, S, Hyndman, RJ, & Petropoulos, F. (2020). Forecasting in social settings: The state of the art. *International J Forecasting*, *36*(1), 15–28.
- 10. Talagala, PD, Hyndman, RJ, Smith-Miles, K, Kandanaarachchi, S, & Muñoz, MA. (2020). Anomaly detection in streaming nonstationary temporal data. *J Computational & Graphical Statistics*, 20(1), 13–27.
- 11. Wickramasuriya, SL, Athanasopoulos, G, & Hyndman, RJ. (2019). Optimal forecast reconciliation for hierarchical and grouped time series through trace minimization. *J American Statistical Association*, 114(526), 804–819.
- 12. Bergmeir, C, Hyndman, RJ, & Koo, B. (2018). A note on the validity of cross-validation for evaluating autoregressive time series prediction. *Computational Statistics & Data Analysis*, 120, 70–83.
- 13. Athanasopoulos, G, Hyndman, RJ, Kourentzes, N, & Petropoulos, F. (2017). Forecasting with temporal hierarchies. *European J Operational Research*, 262(1), 60–74.
- 14. Hong, T, Pinson, P, Fan, S, Zareipour, H, Troccoli, A, & Hyndman, RJ. (2016). Probabilistic energy forecasting: Global energy forecasting competition 2014 and beyond. *International J Forecasting*, 32(3), 896–913.
- 15. De Livera, AM, Hyndman, RJ, & Snyder, RD. (2011). Forecasting time series with complex seasonal patterns using exponential smoothing. *J American Statistical Association*, 106(496), 1513–1527.
- 16. Hyndman, RJ, Ahmed, RA, Athanasopoulos, G, & Shang, HL. (2011). Optimal combination forecasts for hierarchical time series. *Computational Statistics & Data Analysis*, 55(9), 2579–2589.
- 17. Hyndman, RJ, & Fan, S. (2010). Density forecasting for long-term peak electricity demand. *IEEE Transactions on Power Systems*, 25(2), 1142–1153.
- 18. Verbesselt, J, Hyndman, RJ, Newnham, G, & Culvenor, D. (2010). Detecting trend and seasonal changes in satellite image time series. *Remote Sensing of Environment*, 114(1), 106–115.
- 19. Hyndman, RJ, & Booth, H. (2008). Stochastic population forecasts using functional data models for mortality, fertility and migration. *International J Forecasting*, 24(3), 323–342.
- 20. Hyndman, RJ, & Khandakar, Y. (2008). Automatic time series forecasting: The forecast package for R. *J Statistical Software*, 26(3), 1–22.
- 21. Hyndman, RJ, & Ullah, S. (2007). Robust forecasting of mortality and fertility rates: A functional data approach. *Computational Statistics & Data Analysis*, *5*1(10), 4942–4956.
- 22. de Gooijer, JG, & Hyndman, RJ. (2006). 25 years of time series forecasting. *International J Forecasting*, 22(3), 443–473.
- 23. Hyndman, RJ, & Koehler, AB. (2006). Another look at measures of forecast accuracy. *International J Forecasting*, 22(4), 679–688.
- 24. Hyndman, RJ, Koehler, AB, Snyder, RD, & Grose, S. (2002). A state space framework for automatic forecasting using exponential smoothing methods. *International J Forecasting*, 18(3), 439–454.
- 25. Hyndman, RJ. (1996). Computing and graphing highest density regions. The American Statistician, 50(2), 120-126.
- 26. Hyndman, RJ, Bashtannyk, DM, & Grunwald, GK. (1996). Estimating and visualizing conditional densities. *J Computational & Graphical Statistics*, 5(4), 315–336.
- 27. Hyndman, RJ, & Fan, Y. (1996). Sample quantiles in statistical packages. The American Statistician, 50(4), 361–365.