# **Rob J Hyndman**

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

#### **Curriculum Vitae**

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# **Education and qualifications**

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

# **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**

- 2021 Pitman Medal, Statistical Society of Australia
- 2021 Vice-Chancellor's Award for Innovation in Learning and Teaching
- 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
- 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

#### **Editorial boards**

2011- **Editor**, Journal of Statistical Software

2005–2018 **Editor-in-Chief**, International Journal of Forecasting 2001–2004, 2019 **Associate Editor**, International Journal of Forecasting

2001-2004 Theory and Methods Editor, Australian & New Zealand Journal of Statistics

## Research grants

I have acquired (in most cases jointly) about \$32 million in external research grants since 2000, including 3 ARC Discovery Grants, 3 ARC Linkage Grants, 1 NHMRC Grant, an ARC Centre of Excellence, an ARC Industrial Training Transformation Centre, and contract research grants from many government and business organizations.

#### **Selected public lectures**

- ➤ Belz lecture, Forecasting and the importance of being uncertain, Statistical Society Australia, Melbourne, Oct 2006.
- ➤ Knibbs lecture, *Population forecasting and the importance of being uncertain*, Statistical Society Australia, Canberra, Nov 2007.
- ➤ Yahoo Big Thinkers lecture, Exploring the boundaries of predictability: what can we forecast, and when should we give up?, California, Jun 2015.
- ➤ Cornish lecture, Feasts and fables: modern tools for time series analysis, Adelaide, November 2021.

#### **Selected keynote addresses**

- ➤ 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, 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.
- ➤ Blakers lecture, Forecasting the future and the future of forecasting, ANU-AAMT National Mathematics Summer School, January 2022.

## R packages

I have coauthored 56 R packages as a result of my research. There have been over 74 million downloads of my packages since 2015 (to 18 July 2022).

#### **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

## **Selected papers**

Since 1991 I have authored 207 research papers or book chapters on statistical topics. Some highlights are listed below, with citations taken from Google Scholar on 18 July 2022. My h-index is 72 with total citations of 47151.

- 1. Kandanaarachchi, S, & Hyndman, RJ. (2022). Leave-one-out kernel density estimates for outlier detection. *J Computational & Graphical Statistics*, 31, 586–599. [Citations: 2].
- 2. Montero-Manso, P, & Hyndman, RJ. (2021). Principles and algorithms for forecasting groups of time series: Locality and globality. *International J Forecasting*, 37(4), 1632–1653. [Citations: 44].
- 3. 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. [Citations: 65].
- 4. Talagala, PD, Hyndman, RJ, & Smith-Miles, K. (2021). Anomaly detection in high-dimensional data. *J Computational & Graphical Statistics*, 30(2), 360–374. [Citations: 25].
- 5. Montero-Manso, P, Athanasopoulos, G, Hyndman, RJ, & Talagala, TS. (2020). FFORMA: Feature-based forecast model averaging. *International Journal of Forecasting*, 36(1), 86–92. [Citations: 154].
- 6. Wang, E, Cook, D, & Hyndman, RJ. (2020). A new tidy data structure to support exploration and modeling of temporal data. *J Computational & Graphical Statistics*, 29(3), 466-478. [Citations: 25].
- 7. 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. [Citations: 185].
- 8. 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. [Citations: 440].
- 9. Athanasopoulos, G, Hyndman, RJ, Kourentzes, N, & Petropoulos, F. (2017). Forecasting with temporal hierarchies. European Journal of Operational Research, 262(1), 60–74. [Citations: 197].
- 10. Kang, Y, Hyndman, RJ, & Smith-Miles, K. (2017). Visualising forecasting algorithm performance using time series instance spaces. *International Journal of Forecasting*, 33(2), 345–358. [Citations: 143].
- 11. Bergmeir, C, Hyndman, RJ, & Benitez, JM. (2016). Bagging exponential smoothing methods using STL decomposition and Box-Cox transformation. *International Journal of Forecasting*, 32(2), 303–312. [Citations: 234].
- 12. 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. [Citations: 877].
- 13. Hyndman, RJ, Ahmed, RA, Athanasopoulos, G, & Shang, HL. (2011). Optimal combination forecasts for hierarchical time series. *Computational Statistics & Data Analysis*, 55(9), 2579–2589. [Citations: 405].
- 14. Hyndman, RJ, & Fan, S. (2010). Density forecasting for long-term peak electricity demand. *IEEE Transactions on Power Systems*, 25(2), 1142–1153. [Citations: 382].
- 15. 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. [Citations: 1481].
- 16. Hyndman, RJ, & Booth, H. (2008). Stochastic population forecasts using functional data models for mortality, fertility and migration. *International Journal of Forecasting*, 24(3), 323–342. [Citations: 319].
- 17. Hyndman, RJ, & Khandakar, Y. (2008). Automatic time series forecasting: The forecast package for R. *Journal of Statistical Software*, 26(3), 1–22. [Citations: 3479].
- 18. Hyndman, RJ, & Ullah, S. (2007). Robust forecasting of mortality and fertility rates: A functional data approach. *Computational Statistics & Data Analysis*, 51(10), 4942–4956. [Citations: 772].
- 19. de Gooijer, JG, & Hyndman, RJ. (2006). 25 years of time series forecasting. *International Journal of Forecasting*, 22(3), 443–473. [Citations: 1314].
- 20. Hyndman, RJ, & Koehler, AB. (2006). Another look at measures of forecast accuracy. *International Journal of Forecasting*, 22(4), 679–688. [Citations: 4757].
- 21. Hyndman, RJ, Koehler, AB, Snyder, RD, & Grose, S. (2002). A state space framework for automatic forecasting using exponential smoothing methods. *International Journal of Forecasting*, 18(3), 439–454. [Citations: 1092].
- 22. Hyndman, RJ. (1996). Computing and graphing highest density regions. *The American Statistician*, 50(2), 120–126. [Citations: 715].
- 23. Hyndman, RJ, Bashtannyk, DM, & Grunwald, GK. (1996). Estimating and visualizing conditional densities. *J Computational & Graphical Statistics*, *5*(4), 315–336. [Citations: 423].
- 24. Hyndman, RJ, & Fan, Y. (1996). Sample quantiles in statistical packages. *The American Statistician*, 50(4), 361–365. [Citations: 1127].