Rob J Hyndman

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 positions

2003– **Professor of Statistics**, Department of Econometrics & Business Statistics, Monash University.
2005– **Director**, International Institute of Forecasters.
2005– **Editor-in-Chief**, *International Journal of Forecasting*.
2011– **Section Editor**, *Journal of Statistical Software*.

Recent honours and awards

2016 KNAW Visiting Professor, TU/Eindhoven, Netherlands.
2010 Dean's Award for excellence in innovation and external collaboration, Monash University.
2010 HP Innovation Research Award.
2008 Dean's award for excellence in research, Monash University.
2008 Vice-Chancellor's award for postgraduate supervisor of the year, Monash University.
2007 Knibbs Lecturer, Statistical Society of Australia (ACT branch).
2007 Moran Medal for Statistical Science, Australian Academy of Science.
2006 Belz Lecturer, Statistical Society of Australia (Victorian branch).

Research

- Since 1991 I have authored 166 papers, chapters or books on statistical topics. A list of selected publications appears on the following page.
- My current research involves the analysis of large collections of time series, and includes visualization, forecasting, reconciliation and modelling. Applications include electricity demand and smart-meter data, security sensors, manufacturing data and retail sales.
- I currently supervise six PhD students and two post-doctoral research fellows. I have previously supervised another 22 PhD students and 3 Masters students.
- I publish a blog on research issues (`robjhyndman.com/hyndsight/`) which receives an average of about 2800 pageviews per day.
- I have produced 27 R packages as a result of my research; 21 of them are on CRAN.

Advisory boards

- Member of the Scaling committee, Victorian Tertiary Admissions Centre. This committee is responsible for producing the ATAR for VCE students.
- Member of the Interstate Transfer Index Technical Group for the Australasian Conference of Tertiary Admissions Centres.
- Member of the Aboriginal and Torres Strait Islander Statistical and Technical Advisory Group for the Australian Institute of Health and Welfare.
- Member of the Methodology Advisory Committee for the Australian Bureau of Statistics.

Books

1. Makridakis, SG, SC Wheelwright, and RJ Hyndman (1998). *Forecasting: methods and applications*. 3rd. New York: John Wiley and Sons. `robjhyndman.com/forecasting/`.
2. Hyndman, RJ, AB Koehler, JK Ord, and RD Snyder (2008). *Forecasting with exponential smoothing: the state space approach*. Berlin: Springer-Verlag. `www.exponentialsmoothing.net`.
3. Hyndman, RJ and G Athanasopoulos (2018). *Forecasting: principles and practice*. 2nd edition. Melbourne, Australia: OTexts. `OTexts.org/fpp2`.

Selected refereed research papers

1. Hyndman, RJ (1993). Yule-Walker estimates for continuous-time autoregressive models. *Journal of Time Series Analysis* **14**(3), 281–296.
2. Hyndman, RJ (1995). Highest-density forecast regions for nonlinear and non-normal time series models. *Journal of Forecasting* **14**(5), 431–441.
3. Hyndman, RJ (1996). Computing and graphing highest density regions. *The American Statistician* **50**(2), 120–126.
4. Hyndman, RJ, DM Bashtannyk, and GK Grunwald (1996). Estimating and visualizing conditional densities. *Journal of Computational and Graphical Statistics* **5**(4), 315–336.
5. Hyndman, RJ and Y Fan (1996). Sample quantiles in statistical packages. *The American Statistician* **50**(4), 361–365.
6. Grunwald, GK, K Hamza, and RJ Hyndman (1997). Some properties and generalizations of non-negative Bayesian time series models. *Journal of the Royal Statistical Society. Series B* **59**(3), 615–626.
7. Hyndman, RJ, AB Koehler, RD Snyder, and S Grose (2002). A state space framework for automatic forecasting using exponential smoothing methods. *International Journal of Forecasting* **18**(3), 439–454.
8. Hall, PG, RJ Hyndman, and Y Fan (2004). Nonparametric confidence intervals for receiver operating characteristic curves. *Biometrika* **91**(3), 743–750.
9. Hyndman, RJ, AB Koehler, JK Ord, and RD Snyder (2005). Prediction intervals for exponential smoothing using two new classes of state space models. *Journal of Forecasting* **24**(1), 17–37.
10. Hyndman, RJ and AB Koehler (2006). Another look at measures of forecast accuracy. *International Journal of Forecasting* **22**(4), 679–688.
11. 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.
12. Hyndman, RJ and H Booth (2008). Stochastic population forecasts using functional data models for mortality, fertility and migration. *International Journal of Forecasting* **24**(3), 323–342.
13. Hyndman, RJ and Y Khandakar (2008). Automatic time series forecasting : the forecast package for R. *Journal of Statistical Software* **26**(3), 1–22.
14. Hyndman, RJ and HL Shang (2009). Forecasting functional time series (with discussion). *Journal of the Korean Statistical Society* **38**(3), 199–221.
15. Hyndman, RJ and S Fan (2010). Density forecasting for long-term peak electricity demand. *IEEE Transactions on Power Systems* **25**(2), 1142–1153.
16. Hyndman, RJ and HL Shang (2010). Rainbow plots, bagplots and boxplots for functional data. *Journal of Computational and Graphical Statistics* **19**(1), 29–45.
17. De Livera, AM, RJ Hyndman, and RD Snyder (2011). Forecasting time series with complex seasonal patterns using exponential smoothing. *Journal of the American Statistical Association* **106**(496), 1513–1527.
18. 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.
19. 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.
20. Ben Taieb, S and RJ Hyndman (2014). A gradient boosting approach to the Kaggle load forecasting competition. *International Journal of Forecasting* **30**(2), 382–394.
21. Ben Taieb, S and RJ Hyndman (2014). Boosting multi-step autoregressive forecasts. In: *Proceedings of The 31st International Conference on Machine Learning*. Beijing, China. June 2014, pp.109–117. `jmlr.org/proceedings/papers/v32/taieb14.pdf`.
22. Athanasopoulos, G, RJ Hyndman, N Kourentzes, and F Petropoulos (2017). Forecasting with temporal hierarchies. *European Journal of Operational Research* **262**(1), 60–74.
23. Ben Taieb, S, JW Taylor, and RJ Hyndman (2017). Coherent probabilistic forecasts for hierarchical time series. In: *Proceedings of the 34th International Conference on Machine Learning*, *PMLR*. Vol. 70, pp.3348–3357.
24. Kang, Y, RJ Hyndman, and K Smith-Miles (2017). Visualising forecasting algorithm performance using time series instance spaces. *International Journal of Forecasting* **33**(2), 345–358.
25. Shang, HL and RJ Hyndman (2017). Grouped functional time series forecasting: an application to age-specific mortality rates. *Journal of Computational and Graphical Statistics* **26**(2), 330–343.
26. 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.
27. Wickramasuriya, SL, G Athanasopoulos, and RJ Hyndman (2018). Optimal forecast reconciliation for hierarchical and grouped time series through trace minimization. *J American Statistical Association*. to appear.