

CURRICULUM VITAE

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Family Name: De Gooijer

First Name: Jan G.

Nationality: Dutch

Civil Status: Married

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Education / Professional Studies

Institution: Mathematics, Delft Technical University, the Netherlands (1975)

Degree/Diploma: M.Sc. in Mathematics and Statistics

Institution: Free University Amsterdam, the Netherlands (1984)

Degree/Diploma: Ph.D. in Economics

Honours (by election)

Elected member of the International Statistical Institute

Honorary Fellow of the International Institute of Forecasters (2008)

Other Skills

Associate editor of the *Journal of Forecasting*, 1982–1985

Associate editor of the *International Journal of Forecasting*, 1986–1991

Editor of the *International Journal of Forecasting*, 1992–1997

Editor-in-Chief of the *International Journal of Forecasting*, 1998–2004

Editor of the *International Journal of Forecasting*, 2005–2008

Associate Editor of the *International Journal of Forecasting*, 2009–2011

Associate Editor *Empirical Economics*, 2008–2011

Organization of Conferences

- General Chairperson of the Eighth International Symposium on Forecasting, 12-15 June, 1988, Amsterdam.
- Co-organizer and General Chairperson of the International Conference on Marketing Statistics, 29 May, 1991, Amsterdam.
- Co-organizer and General Chairperson of the International Conference on Statistical Quality Control in Industry, 19 March, 1992, Amsterdam.
- Co-organizer of the NBER-NSF Time Series Meeting, 1996, Erasmus University Rotterdam.

Published Works

Books

1. *Economic Statistics: Recent Developments in Quantitative Research* (Co-editors: M.J.T.J. van Nieuwburg and J.A.M. Wesseling) (in Dutch). Boom Publishing Company, Meppel, 1987.
2. *Indexnumber Theory with Economic Applications* (with M.J.T.J. van Nieuwburg), (in Dutch). Boom Publishing Company, Meppel, 1989.
3. *Elements of Nonlinear Time Series Analysis and Forecasting*. Springer-Verlag, New York, Berlin, 2017 (ISBN 978-3-319-43251-9).

Articles

1977

4. Modelling of multivariate time series processes, *Cahiers du Centre d'Etudes de Recherche Opérationnelle*, 19, 349–355.

1978

5. On the inverse of the autocovariance matrix for a general mixed autoregressive moving process, *Statistische Hefte* (currently called *Statistical Papers*), 19, 114–123.

1979

6. On discriminating between IMA(1,1) and ARMA(1,1) processes: some extensions to a paper by Wichern (with O.D. Anderson), *The Statistician*, 28, 119–133.
7. On a recurrence relation for a special type of determinant, *Matrix and Tensor Quarterly*, 30, 55–60.

1980

8. Classifying series realizations from IMA(1,1) and ARMA(1,1) processes (with O.D. Anderson). In *Time Series* (O.D. Anderson, Ed.), Elsevier/North-Holland, pp. 5–13.
9. Distinguishing between IMA(1,1) and ARMA(1,1) models: A large scale simulation study of two particular time processes (with O.D. Anderson). In *Time Series* (O.D. Anderson, Ed.), Elsevier/North-Holland, Amsterdam, pp. 15–40.
10. Distinguishing certain stationary time series from their nonstationary approximations and improved Box-Jenkins forecasting (with O.D. Anderson). In *Analysing Time Series* (O.D. Anderson, Ed.), Elsevier/North-Holland, Amsterdam, pp. 21–42.
11. A comparative study of the moments of the first lag serial correlation coefficient, *Statistica*, Vol. XL, 345–362.
12. Exact moments of the sample autocorrelations from series generated by general ARIMA processes of order (p, d, q) , $d = 0$ or 1 , *Journal of Econometrics*, 14, 365–379.
13. A comparative study of some sample autocovariance and autocorrelation functions, *Cahiers du Centre d'Etudes de Recherche Opérationnelle*, 22, 325–343.

1981

14. The corner method: An investigation of an order discrimination procedure for general ARMA processes (with R.M.J. Heuts), *Journal of the Operational Research Society*, 32, 1039–1042.
15. An investigation of the moments of the sample autocovariances and autocorrelations for general ARMA processes, *Journal of Statistical Computation and Simulation*, 12, 175–192.

1982

16. The covariances between sampled autocovariances and between serial correlations for finite realizations from ARUMA time series models (with O.D. Anderson). In *Time Series Analysis: Theory and Practice 1* (O.D. Anderson, Ed.), Elsevier/North-Holland, Amsterdam, pp. 7–22.
17. On the maximum likelihood estimation of the parameters of a Gaussian moving average process (with E.J. Godolphin), *Biometrika*, 69, 443–451.
18. On the behavior of stock prices on the Amsterdam Stock Exchange and the random walk hypothesis (with A.B. Dorsman) (in Dutch), *Bedrijfskunde*, 54, 370–378.

1983

19. The relationship between the New York and Amsterdam Stock Exchange (with A.B. Dorsman) (in Dutch), *Bedrijfskunde*, Vol. 55, 95–98.
20. Formulae for the covariance structure of the sampled autocovariances from series generated by general autoregressive integrated moving average processes of order (p, d, q) , $d = 0$ or 1 (with O.D. Anderson), *Sankhyā*, 45, Series B, 249–256.

1984

21. On the strong form efficiency hypothesis and the behavior of stock prices on the Amsterdam Stock Exchange (1) (with A.B. Dorsman) (in Dutch), *Bedrijfskunde*, 56, 86–96.
22. On the strong form efficiency hypothesis and the behavior of stock prices on the Amsterdam Stock Exchange (2) (with A.B. Dorsman) (in Dutch), *Bedrijfskunde*, 56, 202–208.
23. On the behavior of Dutch stock market prices and the random walk hypothesis (with A.B. Dorsman). In *European Equity Markets: Risk, Return and Efficiency* (G. Hawawini and P. Michel, Eds.). New York, Garland Publishing Company, pp. 185–214.

1985

24. Time series model selection and financial market efficiency. In *Methods of Operations Research* (R. Henn, Ed.). Hain Verlag, pp. 205–224.
25. Moments of the sampled space-time autocovariance and autocorrelation function (with O.D. Anderson), *Biometrika*, Vol. 72, 689–693. Amendments and Corrections, *Biometrika*, 74(3).
26. Methods for determining the order of an autoregressive moving average process: A survey (with B. Abraham, A. Gould and L. Robinson), *The International Statistical Review*, 53, 301–329.
27. A Monte Carlo study of the small-sample properties of some estimators for ARMA models, *Computational Statistics Quarterly*, 2, 245–266.

1987

28. Correlations in stock returns: some statistical comments. In *The Amsterdam Stock Exchange* (in Dutch) (A.B. Dorsman, J. van der Hilst and R.Th. Wymenga, Eds.). Samsom Publishing Company, Alphen aan den Rijn, pp. 47–55.
29. Non-linearities in world stock market prices (in Dutch). In *Economic Statistics: Recent Developments in Quantitative Research* (J.G. De Gooijer, M.J.T.J. van Nieuwburg and J.A.M. Wesseling, Eds.), Boom, Meppel, pp. 193–216.
30. Higher order moments of bilinear time series processes with symmetrically distributed errors (with R.M.J. Heuts). In *Proceeding of the Second International Tampere Conference in Statistics* (T. Pukkila and S. Puntanen, Eds.), pp. 467–476.

1988

31. Sampled autocovariance and autocorrelation results for linear time processes (with O.D. Anderson), *Communications in Statistics: Simulation and Computation*, 17(2), 489–513.
32. A specification strategy for order determination in ARMA models (with P. Saikkonen), *Communications in Statistics: Simulation and Computation*, 17(3), 1037–1054.
33. On the identification of the latent covariance structure in dynamic nonstationary factor models (with P.C.M. Molenaar). In *The Many Faces of Multivariate Analysis* (M.G.H. Jansen and W.H. van Schuur, Eds.), Proceedings of the SMABS-88 conference in Groningen, Groningen: RION, pp. 196–209.
34. Cross-validation criteria and the analysis of covariance structures (with S.J. Koopman). In *The Many Faces of Multivariate Analysis* (M.G.H. Jansen and W.H. van Schuur, Eds.), Proceedings of the SMABS-88 conference in Groningen, Groningen: RION, pp. 296–311.

1989

35. Forecasting the Antwerp maritime steel traffic flow: A case study (with A. Klein), *Journal of Forecasting*, 8, 381–398.
36. A min-max optimal instrumental variable estimation method for multivariate linear time series systems (with P. Stoica), *The International Journal of Control*, 50, 955–976.
37. Testing non-linearities in world stock market prices, *Economics Letters*, 31, 31–35.
38. Comments on “Analysis of historical time-series and the use of SAS”. In *History and Computing* (R.C.W. van der Voort, Ed.), Amsterdam, pp. 31–34.

1990

39. Discrimination between nonstationary processes, and its effect on forecasting (with O.D. Anderson), *Recherche Operationelle/Operations Research*, 24, 67–91.
40. The role of time series analysis in forecasting: A personal view, *International Journal of Forecasting*, 6, 449–451.

1991

41. On the cumulated multi-step-ahead prediction of vector autoregressive moving average processes (with A. Klein), *International Journal of Forecasting*, 7, 501–513.

1992

42. Lies, big lies, and quantitative forecasts (in Dutch), *Kwantitatieve Methoden*, 40, 115–128.

43. Discriminating between nonstationary and nearly nonstationary time series models: A simulation study (with O.D. Anderson), *Journal of Computational and Applied Mathematics*, 41, 265–280.
44. Some recent developments in non-linear time series modelling, testing, and forecasting (with K. Kumar), *International Journal of Forecasting*, 8, 135–156.
45. Dynamic factor analysis of nonstationary multivariate time series (with P.C.M. Molenaar and B. Schmitz), *Psychometrika*, 57, 333–349.
46. Statistical quality control in Dutch industries (with R.J.M.M. Does) (in Dutch), *SIGMA*, 45(6), 23–25.

1993

47. Modelling business cycle data using autoregressive - asymmetric moving average (with K. Brännäs), *Proceedings of the Business & Economic Statistics Section of the American Statistical Association*, pp. 331–336.

1994

48. Autoregressive - asymmetric moving average models for business cycle data (with K. Brännäs), *Journal of Forecasting*, 13, 529–544.
49. On the expectation of estimators for general ARMA processes (with T. Pukkila) *Proceedings of the Business & Economic Statistics Section of the American Statistical Association*, pp. 164–169.
50. On the expectation of estimators for general ARMA processes (with T. Pukkila), *Statistica*, LIV, 39–50.
51. Estimating market model betas using least absolute deviations estimation: Does it make a difference? (with S. Bretschneider and P. Koveos), *Kwantitatieve Methoden*, 15, 77–89.

1995

52. Cross-validation criteria for covariance structures, *Communications in Statistics: Simulation and Computation*, 24, 1–16.
53. Invertibility of nonlinear time series models (with K. Brännäs), *Communications in Statistics: Theory and Methods*, 24, 2701–2714.
54. Oliver Duncan Anderson: 1940–1995, *International Journal of Forecasting*, 11(1), 195–196.

1996

55. Component extraction analysis of multivariate time series (with I. Akman), *Computational Statistics & Data Analysis*, 21, 487–499.
56. Cumulated prediction errors of multivariate time series models (with A. Klein), *Random Operators and Stochastic Equations*, 4, 111–117.

1997

57. Model selection by maximum entropy (with P.H.F.M. van Casteren). In *Advances in Econometrics: Applying Maximum Entropy to Econometric Problems* (R. Carter Hill and T.B. Fomby, Eds.), JAI Press Inc., pp. 135–161.
58. Forecasting and seasonality (with P.H. Franses), *International Journal of Forecasting*, 13, 303–305.

59. Modelling Exchange Rates Using MARS (with H. Kräger), In *Exchange Rate Policy in Europe* (P. Karadeloglou, Ed.), Springer-Verlag, pp. 24–44.

1998

60. On forecasting SETAR processes (with P.T. De Bruin), *Statistics & Probability Letters*, 37, 7–14.
61. Forecasting exchange rates using TSMARS (with B.K. Ray and H. Kräger), *Journal of International Money and Finance*, 17, 513–534.
62. On threshold moving-average models, *Journal of Time Series Analysis*, 19(1), 1–18.
63. Nonparametric forecasting: A comparison of three kernel-based methods (with E. Matzner-Løber and A. Gannoun), *Communications in Statistics: Theory and Methods*, 27, 1593–1617.
64. Testing linearity against nonlinear moving average models (with K. Brännäs and T. Teräsvirta), *Communications in Statistics: Theory and Methods*, 27, 2025–2035.

1999

65. Lagged regression residuals and serial correlation tests (with I.B. MacNeill), *Journal of Business & Economic Statistics*, 17, 236–247.
66. TARSO modeling of water table depths (with M. Knotters), *Water Resources Research*, 35, 695–705.

2000

67. Kernel-based multistep-ahead predictions of the U.S. short-term interest rate (with D. Zerom), *Journal of Forecasting*, 19, 335–353.
68. Nonparametric conditional predictive regions for time series (with A. Gannoun), *Computational Statistics & Data Analysis*, 33, 259–275.

2001

69. Change point analysis: Elision in Euripides' Orestes (with N.M. Laan), *Computers and the Humanities*, 35, 167–191.
70. Cross-validation criteria for SETAR model selection, *Journal of Time Series Analysis*, 22, 267–281.
71. Multi-stage conditional quantile prediction (with A. Gannoun and D. Zerom). In *Proceeding of the Statistical Computing Section and the Section on Statistical Graphics of the American Statistical Association 2000 meeting*, pp. 32–37.
72. Multi-stage kernel-based conditional quantile prediction in time series (with A. Gannoun and D. Zerom), *Communications in Statistics: Theory and Methods*, 30(12), 2499–2515.

2002

73. Mean squared error properties of the kernel-based multi-stage median predictor for time series (with A. Gannoun and D. Zerom), *Statistics & Probability Letters*, 56, 51–56.
74. Nonparametric regression with serially correlated errors (with A. Gannoun and I. Larramendy), *Les Annales de l'I.S.U.P.*, XXXXVI, 17–41.

75. Introduction to forecasting decisions in conflict situations, *International Journal of Forecasting*, 18(3), 319–320.

2003

76. Modeling vector nonlinear time series using POLYMARS (with B.K. Ray). *Computational Statistics & Data Analysis* 42, 73–90.
77. Nonlinear stochastic inflation modelling using SEASETARs (with A. Vidiella-i-Anguera), *Insurance: Mathematics and Economics*, 32, 3–18.
78. On conditional density estimation (with D. Zerom), *Statistica Neerlandica*, 57, 159–176.
79. On additive conditional quantiles with high-dimensional covariates (with D. Zerom), *Journal of the American Statistical Association*, 98, 135–146.

2004

80. Forecasting threshold cointegrated systems (with A. Vidiella-i-Anguera), *International Journal of Forecasting*, 20, 237–253.
81. Asymmetries in conditional mean variance; modelling stock returns by asMA-asQGARCH (with K. Brännäs), *Journal of Forecasting*, 23(3), 155–171.
82. Editorial Announcement, *International Journal of Forecasting*, 20(4), 523–524.

2005

83. On the geometric conditional quantile (with Y. Cheng), *Proceedings of the Annual Meeting of the American Statistical Association*, Toronto (2004), pp. 1971–1974.
84. Estimating threshold cointegrated systems (with A. Vidiella-i-Anguera), *Economics Bulletin*, 3, 1–7.
85. Introduction to nonlinearities, business cycles and forecasting (with A. Garcia-Ferrer, P. Poncela, and E. Ruiz), *International Journal of Forecasting*, 21(4), 623–625.

2006

86. 25 Years of time series forecasting (with R.J. Hyndman), *International Journal of Forecasting*, 22(3), 443–473.
87. A multivariate quantile predictor (with A. Gannoun and D. Zerom), *Communications in Statistics: Theory and Methods*, 35(1), 133–147.
88. Detecting change-points in multidimensional stochastic processes. *Computational Statistics & Data Analysis*, 51(3), 1892–1903.

2007

89. On the u th geometric conditional quantile (with Y. Cheng), *Journal of Statistical Planning and Inference*, 137(6), 1914–1930.
90. Power of the Neyman smooth test for evaluating multivariate forecast densities, *Journal of Applied Statistics*, 34(4), 371–382.
91. Semiparametric regression with kernel error model (with A. Yuan), *Scandinavian Journal of Statistics*, 34(4), 841–869.
92. TR Multivariate conditional median estimation (with A. Gannoun), *Communications in Statistics: Simulation and Computation*, 36(1), 165–176.

2008

93. MDL mean function selection in semiparametric kernel regression models (with A. Yuan), *Communications in Statistics: Theory and Methods*, 37(14), 2237–2248.
94. Parametric and nonparametric Granger causality testing: Linkages between international stock markets (with S. Sivarajasingham), *Physica A*, 387, 2547–2560.
95. Partial sums of lagged cross-products of AR residuals and a test for white noise, *TEST*, 17(13), 567–584.

2009

96. Bahadur representation for the nonparametric M-estimator under α -mixing dependence (with Y. Cheng), *Statistics*, 43, 443–462.

2011

97. Efficient estimation of an additive quantile regression model (with Y. Cheng and D. Zerom), *Scandinavian Journal of Statistics*, 38(1), 46–62.
98. Some exact tests for manifest properties of latent trait models (with A. Yuan), *Computational Statistics & Data Analysis*, 55(1), 34–44.
99. Kernel-smoothed conditional quantiles of correlated bivariate discrete data (with A. Yuan), *Statistica Sinica*, 21, 1611–1638.

2012

100. Simultaneity and asymmetry of returns and volatilities: The emerging Baltic states' stock exchanges (with K. Brännäs, C. Lönnbark, and A. Soultanaeva), *Studies in Nonlinear Dynamics & Econometrics*, Vol. 16., Issue 1, Article 4.
101. Information flows around the globe: Predicting opening gaps from overnight foreign (with C.G.H. Diks and L.T. Gatarek), *Central European Journal of Economic Modelling and Econometrics*, 41, 23–44.

2014

102. Asymptotically informative prior for Bayesian analysis (with A. Yuan), *Communications in Statistics: Theory and Methods*, 43(14), 3080–3094.

2016

103. Non parametric portmanteau tests for detecting non linearities in high dimensions (with A. Yuan). *Communications in Statistics: Theory and Methods*, 45(2), 385–399.

2018

104. Periodic autoregressive forecasting of global solar irradiation without knowledge-based model implementation (with C. Voyant and G. Notton). *Solar Energy*, 174, 121–129. <https://doi.org/10.1016/j.solener.2018.08.076>.
105. Mean-variance and mean-semivariance portfolio selection: A multivariate nonparametric approach (with H. Ben Salah, A. Gannoun, and M. Ribatet). *Financial Markets and Portfolio Management*, 32, 419–436. <https://doi.org/10.1007/s11408-018-0317-4>.

2019

106. Semiparametric quantile averaging in the presence of high-dimensional predictors (with D. Zerom). *International Journal of Forecasting*, 35(3), 891–909. <http://doi.org/10.1016/j.ijforecast.2018.10.009>.

2020

107. Penalized averaging of parametric and non-parametric quantile forecasts (with D. Zerom). *Journal of Time Series Econometrics*. <https://doi.org/10.1515/jtse-2019-0021>.

2021

108. Asymmetric vector moving average models: Estimation and Testing. *Computational Statistics* 36(2), 1437-1460.; <https://doi.org/10.1007/s00180-020-01056-1>.
109. A multi-step kernel-based regression estimator that adapts to error distributions of unknown form (with H. Reichardt). *Communications in Statistics: Theory and Methods*, 50(4), 6211-6230.. <https://doi.org/10.1080/03610926.2020.1741625>.

2022

110. Kernel-based hidden Markov conditional densities (with G.E. Henter and A. Yuan). *Computational Statistics & Data Analysis*, 169, p. 10743. <http://do.org/10.1016/j.csda.2022.10743>.
111. The marginal distribution function of threshold-type processes with central symmetric innovations. *Statistics*, 56(1), 1–33. <https://doi.org/10.1080/02331888.2022.2029862>.

2023

112. Penalized averaging of quantile forecasts from GARCH models with many exogenous predictors. *Computational Economics*, 62(1), 407–424. <https://doi.org/10.1007/s10614-022-10289-9>
113. On portmanteau-type tests for nonlinear multivariate time series. *Journal of Multivariate Analysis*, 195, 105157. <https://doi.org/10.1016/j.jmva.2023.105157>.
114. Estimating generalized additive conditional quantiles for absolutely regular processes (with Y. Cheng). arXiv2306.03674. <https://arxiv.org/abs/2306.03674>

2024

115. Testing nonlinearity of heavy-tailed time series. *Journal of Applied Statistics*, 51(3), 2672–2689. <https://doi.org/10.1080/02664763.2024.2315450>.

Book reviews

1. *Statistical Forecasting*, by Warren Gilchrist (in Dutch), *Monthly Bulletin of the Netherlands Society of Statistics and Operations Research*, Vol. 5, 43, 1977.
2. *Analysing Time Series*, by O.D. Anderson (in Dutch), *Monthly Bulletin of the Netherlands Society of Statistics and Operations Research*, Vol. 10, 15-17, 1982.
3. *An Introduction to Bispectral Analysis and Bilinear Time Series Models*, by T. Subba Rao and M.M. Gabr, *Mathematical Reviews*, 2115–2116, 1986.
4. *Teaching Statistics in the Computing Age*, by L. Råde and T. Speed (in Dutch), *Quartile*, Vol. 2, 159-160, 1986.
5. *Modelling Financial Time Series*, by S. Taylor (in Dutch), *Kwantitatieve Methoden*, 25, 141–142, 1987.
6. *Seemingly Unrelated Regression Equations Models*, by V.K. Srivastava and D.E.A. Giles (in Dutch), *Kwantitatieve Methoden*, 28, 170–171, 1988.

7. *System Identification*, by T. Söderström and P. Stoica, *International Journal of Forecasting*, Vol. 6, 256–258, 1990.
8. *Non-linear Time Series: A Dynamical System Approach*, by H. Tong (in Dutch), *Kwantitatieve Methoden*, Nr. 38, 140–142, 1991.
9. *Nonlinear Dynamics, Chaos, and Instability*, by W.A. Brock, D.A. Hsieh and B. LeBaron, *International Journal of Forecasting*, Vol. 8, 134–135, 1993.
10. *On predictive least squares principles*, by C.Z. Wei, *International Journal of Forecasting*, Vol. 8, 138–139, 1993.

Ph.D. Supervision

1. A.B. Dorsman (1988), *Dividend and Dividend Policies* (in Dutch) (co-supervisor L.A. Ankum).
2. H. Kat (1993), *The Efficiency of Dynamic Trading Strategies in Imperfect Markets* (co-supervisor: L.A. Ankum).
3. H. Visser (1994), *Regression Models with Time-Varying Parameters: Applications in the Environmental Sciences*.
4. R. De Vilder (1998), *Endogenous Business Cycles* (co-supervisor: S.J. Van Strien).
5. B. Kuhry (1998), *Trends in Educational Participation* (in Dutch) (co-supervisor: F.J.H. Don).
6. D. Zerom Godefay (2002), *Nonparametric Prediction: Some Selected Topics*.
7. P.T. De Bruin (2002), *Essays on Modeling Nonlinear Time Series* (co-supervisor: P.H. Franses).
8. Y. Cheng (2007), *Selected Topics on Nonparametric Conditional Quantiles and Risk Theory*.
9. F. Cobben (2009), *Nonresponse in Sample Surveys: Methods for Analysis and Adjustment* (co-supervisor J.G. Bethlehem).

Websites

<https://ideas.repec.org/e/pgo185.html>
<http://econpapers.repec.org/RAS/pgo185.htm>
http://www.researchgate.net/profile/Jan_G_De_Gooijer
<https://ssrn.com/author=78451>
<https://www.jandegooijer.nl>