CURRICULUM VITAE

February 2026

Name:

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School of Mathematical and Physical Sciences,
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Current Position:

Distinguished Professor of Statistics,
School of Mathematical and Physical Sciences,
University of Technology Sydney.

Previous Positions Held:

2007-2010 Research Professor in Statistics, School of Mathematics and Applied Statistics, University of Wollongong, Australia.

2003-2006 Professor of Statistics, School of Mathematics and Statistics, University of New South Wales, Sydney, Australia.

1997-2002 Associate Professor in Biostatistics, School of Public Health, Harvard University, U.S.A.

1994-1997 Senior Lecturer in Statistics, Australian Graduate School of Management, University of New South Wales, Sydney, Australia

1992-1994 Lecturer in Statistics, Australian Graduate School of Management, University of New South Wales, Sydney, Australia

1990-1992 Visiting Assistant Professor, Rice University, Houston, U.S.A.

1989-90 Assistant Professor, Texas A&M University, U.S.A.

1989 (January – May) Visiting Assistant Professor, Texas A&M University

Date and Place of Birth:

23rd September, 1963 in Wollongong, New South Wales, Australia.

Citizenship:

Australian

Family:

Married to Handan; son Declan, daughter Jaida.

Education:

1989 Doctor of Philosophy, The Australian National University
(Supervisor: Professor Peter Hall)

1986 Bachelor of Mathematics (Honours Class I) and University Medal,
University of Wollongong

Awards and Fellowships:

2025 Recognised as a notable alumnus of Edmund Rice College, Wollongong

2024 Fellow of the Royal Society of New South Wales

2016 Fellow of the Australian Mathematical Society

2013 Pitman Medal in recognition of outstanding achievement in, and contribution to, the discipline of Statistics, Statistical Society of Australia

2013 Chancellor's Medal for Exceptional Research, University of Technology Sydney

2013 Hannan Medal for research in statistical science, Australian Academy of Science

2008 New South Wales Scientist of the Year Awards Category Winner (Mathematical Sciences)

2008 Fellow of the Australian Academy of Science (FAA)

2007 Fellow of the Institute of Mathematical Statistics

2002 Mentoring Award, Harvard School of Public Health

2000 Fellow of the American Statistical Association

1997 Moran Medal for Statistical Science, Australian Academy of Science

1986 Austin Keane Memorial Prize, University of Wollongong

1985 S.A. Senior Prize, University of Wollongong

1985 Statistical Society of Australia (N.S.W. Branch) Prize

Current Research Interests:

Expectation propagation, Variational approximations, Graphical models, Generalised linear mixed models, Message passing algorithms, Nonparametric regression, Real-time data analysis, Semiparametric regression, Generalised additive models, Spatial statistics, Monte Carlo methods, Computational statistics, Asymptotic theory for linear mixed models.

Books:

1. Harezlak, J., Ruppert, D. and Wand, M.P. (2018). *Semiparametric Regression with R*. New York: Springer.

2. Ruppert, D., Wand, M.P. and Carroll, R.J. (2003). *Semiparametric Regression*. New York: Cambridge University Press. (4317 copies sold as of December 2018; not including library platform sales.)

3. Wand, M. P. and Jones, M. C. (1995). *Kernel Smoothing*. London: Chapman and Hall.

Statistics Methodology and Theory Refereed Journal Articles:

1. Jiang, J., Wand, M.P. and Ghosh, S. (2026). Precise asymptotics for linear mixed models with crossed random effects. *Statistical Theory and Related Fields*, in press.

2. He, V.X. and Wand, M.P. (2025). The Grouped Horseshoe distribution and its statistical properties. *Stat*, **14**, e70050, 1–6.

3. Maestrini, L., Aykroyd, R.G. and Wand, M.P. (2025). A variational inference framework for inverse problems. *Computational Statistics and Data Analysis*, **202**, 108055, 1–15.

4. Menictas, M., Oates, C.J. and Wand, M.P. (2025). Online semiparametric regression via sequential Monte Carlo. *Australian and New Zealand Journal of Statistics*, **67**, 224–249.

5. Maestrini, L., Bhaskaran, A. and Wand, M.P. (2024). Second term improvement to generalized linear mixed model asymptotics. *Biometrika*, **111**, 1077–1084.

6. He, V.X. and Wand, M.P. (2024). Bayesian generalized additive model selection including a fast variational option. *Advances in Statistical Analysis*, **108**, 639–668.

7. Hughes, D.M., Garcia-Finana, M. and Wand, M.P. (2023). Fast approximate inference for multivariate longitudinal data. *Biostatistics*, **24**, 177-192.

8. Bhaskaran, A. and Wand, M.P. (2023). Dispersion parameter extension of precise generalized linear mixed model asymptotics. *Statistics and Probability Letters*, **193**, 109691, 1–8.

9. Menictas, M., Di Credico, G. and Wand, M.P. (2023). Streamlined variational inference for linear mixed models with crossed random effects. *Journal of Computational and Graphical Statistics*, **32**, 99–115.

10. Degani, E., Maestrini, L., Toczydłowska, D. and Wand, M.P. (2022). Sparse linear mixed model selection via streamlined variational Bayes. *Electronic Journal of Statistics*, **16**, 5182–5225.

11. Jiang, J., Wand, M.P. and Bhaskaran, A. (2022). Usable and precise asymptotics for generalized linear mixed model analysis and design. *Journal of the Royal Statistical Society, Series B*, **84**, 55–82.

12. Wand, M.P. and Yu, J.C.F. (2022). Density estimation via Bayesian inference engines. *Advances in Statistical Analysis*, **106**, 199–216.

13. Maestrini, L. and Wand, M.P. (2021). The Inverse G-Wishart distribution and variational message passing. *Australian and New Zealand Journal of Statistics*, **63**, 517–541.

14. Menictas, M., Nolan, T.H., Simpson, D.G. and Wand, M.P. (2021). Streamlined variational inference for higher level group-specific curve models. *Statistical Modelling*, **21**, 479–519.

15. Hall, P., Johnstone, I.M., Ormerod, J.T., Wand, M.P. and Yu, J.C.F. (2020). Fast and accurate binary response mixed model analysis via expectation propagation. *Journal of the American Statistical Association*, **115**, 1902–1916.

16. Chen, W.Y and Wand, M.P. (2020). Factor graph fragmentization of expectation propagation. *Journal of the Korean Statistical Society*, **49**, 722–756.

17. Nolan, T.H., Menictas, M. and Wand, M.P. (2020). Streamlined computing for variational inference with higher level random effects. *Journal of Machine Learning Research*, **21(157)**, 1–62.

18. Nolan, T.H. and Wand, M.P. (2020). Streamlined solutions to multilevel sparse matrix problems. *ANZIAM Journal*, **62**, 18–41.

19. McLean, M.W. and Wand, M.P. (2019). Variational message passing for elaborate response regression models. *Bayesian Analysis*, **14**, 371–398.

20. Maestrini, L. and Wand, M.P. (2018). Variational message passing for Skew t regression. *Stat*, **7: e196**, 1–11.

21. Pham, T.H. and Wand, M.P. (2018). Generalised additive mixed model analysis via `gammSlice`. *Australian and New Zealand Journal of Statistics*, **60**, 279–300.

22. Kim, A.S.I. and Wand, M.P. (2018). On expectation propagation for generalised, linear and mixed models. *Australian and New Zealand Journal of Statistics*, **60**, 75–102.

23. Liu, S.H., Bobb, J.F., Henn, B.C., Schnaas, L., Tellez-Rojo, M.M., Gennings, C., Arora, M., Wright, R.O., Coull, B.A. and Wand, M.P. (2018). Modeling the health effects of time-varying complex environmental mixtures: Mean field variational Bayes for lagged kernel machine regression. *Environmetrics*, **29:**e2504, 1–17.

24. Luts, J., Wang, S.S.J., Ormerod, J.T. and Wand, M.P. (2018). Semiparametric regression analysis via Infer.NET. *Journal of Statistical Software*, **87**, Issue 2, 1–37.

25. Wand, M.P. (2017). Fast approximate inference for arbitrarily large semiparametric regression models via message passing (with discussion). *Journal of the American Statistical Association*, **112**, 137–168.

26. Nolan, T.H. and Wand, M.P. (2017). Accurate logistic variational message passing: algebraic and numerical details. *Stat*, **6**, 102–112.

27. Ryan, L.M., Wand, M.P. and Malecki, A.A. (2016). Bringing coals to Newcastle. *Significance*, **13**, 32–37.

28. Rohde, D. and Wand, M.P. (2016). Semiparametric mean field variational Bayes: General principles and numerical issues. *Journal of Machine Learning Research*, **17(172)**, 1–47.

29. Delaigle, A. and Wand, M.P. (2016). A conversation with Peter Hall. *Statistical Science*, **31**, 275–304.

30. Kim, A.S.I. and Wand, M.P. (2016). The explicit form of expectation propagation for a simple statistical model. *Electronic Journal of Statistics*, **10**, 550–581.

31. Lee, C.Y.Y. and Wand, M.P. (2016). Streamlined mean field variational Bayes for longitudinal and multilevel data analysis. *Biometrical Journal*, **58**, 868–895.

32. Lee, C.Y.Y. and Wand, M.P. (2016). Variational inference for fitting complex Bayesian mixed effects models to health data. *Statistics in Medicine*, **35**, 165–188.

33. Dubossarsky, E., Friedman, J.H., Ormerod, J.T. and Wand, M.P. (2016). Wavelet-based gradient boosting. *Statistics and Computing*, **26**, 93–105.

34. Luts, J. and Wand, M.P. (2015). Variational inference for count response semiparametric regression. *Bayesian Analysis*, **10**, 991–1023.

35. Menictas, M. and Wand, M.P. (2015). Variational inference for heteroscedastic semiparametric regression. *Australian and New Zealand Journal of Statistics*, **57**, 119–138.

36. Neville, S.E., Ormerod, J.T. and Wand, M.P. (2014). Mean field variational Bayes for continuous sparse signal shrinkage: pitfalls and remedies. *Electronic Journal of Statistics*, **8**, 1113–1151.

37. Wand, M.P. (2014). Fully simplified Multivariate Normal updates in non-conjugate variational message passing. *Journal of Machine Learning Research*, **15**, 1351–1369.

38. Luts, J., Broderick, T. and Wand, M.P. (2014). Real-time semiparametric regression. *Journal of Computational and Graphical Statistics*, **23**, 589–615.

39. Pham, T., Ormerod, J.T. and Wand, M.P. (2013). Mean field variational Bayesian inference for nonparametric regression with measurement error. *Computational Statistics and Data Analysis*, **68**, 375–387.

40. Huang, A. and Wand, M.P. (2013). Simple marginally noninformative prior distributions for covariance matrices. *Bayesian Analysis*, **8**, 439–452.

41. Menictas, M. and Wand, M.P. (2013). Variational inference for marginal longitudinal semiparametric regression. *Stat*, **2**, 61–71.

42. Wand, M.P. and Ormerod, J.T. (2012). Continued fraction enhancement of Bayesian computing. *Stat*, **1**, 31–41.

43. Ormerod, J.T. and Wand, M.P. (2012). Gaussian variational approximate inference for generalized linear mixed models. *Journal of Computational and Graphical Statistics*, **21**, 2–17.

44. Wand, M.P. and Ormerod, J.T. (2011). Penalized wavelets: embedding wavelets into semiparametric regression. *Electronic Journal of Statistics*, **5**, 1654–1717.

45. Hall, P., Pham, T., Wand, M.P. and Wang, S.S.J. (2011). Asymptotic normality and valid inference for Gaussian variational approximation. *The Annals of Statistics*, **39**, 2502–2532.

46. Goldsmith, J., Wand, M.P. and Crainiceanu, C. (2011). Functional regression via variational Bayes. *Electronic Journal of Statistics*, **5**, 572–602.

47. Neville, S.E., Palmer, M.J. and Wand, M.P. (2011). Generalized extreme value additive model analysis via mean field variational Bayes. *Australian and New Zealand Journal of Statistics*, **53**, 305–330.

48. Wand, M.P., Ormerod, J.T., Padoan, S.A. and Frühwirth, R. (2011). Mean field variational Bayes for elaborate distributions. *Bayesian Analysis*, **6**, 847–900.

49. Faes, C., Ormerod, J.T. and Wand, M.P. (2011). Variational Bayesian inference for parametric and nonparametric regression with missing data. *Journal of the American Statistical Association*, **106**, 959–971.

50. Wang, S.S.J. and Wand, M.P. (2011). Using Infer.NET for statistical analyses. *The American Statistician*, **65**, 115–126.

51. Hall, P., Ormerod, J.T. and Wand, M.P. (2011). Theory of Gaussian variational approximation for a Poisson linear mixed model. *Statistica Sinica*, **21**, 369–389.

52. Chacón, J.E., Duong, T. and Wand, M.P. (2011). Asymptotics for general multivariate kernel density derivative estimators. *Statistica Sinica*, **21**, 807–840.

53. Samworth, R.J. and Wand, M.P. (2010). Asymptotics and optimal bandwidth selection for highest density region estimation. *The Annals of Statistics*, **38**, 1767–1792.

54. Marley, J.K. and Wand, M.P. (2010). Non-standard semiparametric regression via BRugs. *Journal of Statistical Software*, **37**, Article 5, 1–30.

55. Al Kadiri, M., Carroll, R.J. and Wand, M.P. (2010). Marginal longitudinal semiparametric regression via penalized splines. *Statistics and Probability Letters*, **80**, 1242–1252.

56. Naumann, U., Luta, G. and Wand, M.P. (2010). The curvHDR method for gating flow cytometry samples. *BMC Bioinformatics*, **11:44**, 1–13.

57. Ormerod, J.T. and Wand, M.P. (2010). Explaining variational approximations. *The American Statistician*, **64**, 140–153.

58. Kauermann, G., Ormerod, J.T. and Wand, M.P. (2010). Parsimonious classification via generalised linear mixed models. *Journal of Classification*, **27**, 89–110.

59. Pearce, N.D. and Wand, M.P. (2009). Explicit connections between longitudinal data analysis and kernel machines. *Electronic Journal of Statistics*, **3**, 797–823.

60. Ruppert, D., Wand, M.P. and Carroll, R.J. (2009). Semiparametric regression during 2003-2007. *Electronic Journal of Statistics*, **3**, 1193–1256.

61. Naumann, U. and Wand, M.P. (2009). Automation in high-content flow cytometry screening. *Cytometry, Part A*, **75A**, 789–797.

62. Duong, T., Koch, I. and Wand, M.P. (2009). Highest density difference region estimation with application to flow cytometric data. *Biometrical Journal*, **51**, 504–521.

63. Wand, M.P. (2009). Semiparametric regression and graphical models. *Australian and New Zealand Journal of Statistics*, **51**, 9–41.

64. Staudenmayer, J., Lake, E.E. and Wand, M.P. (2009). Robustness for general design mixed models using the t-distribution. *Statistical Modelling*, **9**, 235–255.

65. Fan, Y., Leslie, D.S. and Wand, M.P. (2008). Generalised linear mixed model analysis via sequential Monte Carlo sampling. *Electronic Journal of Statistics*, **2**, 916–938.

66. Padoan, S.A. and Wand, M.P. (2008). Mixed-model based additive models for sample extremes. *Statistics and Probability Letters*, **78**, 2850–2858.

67. Wand, M.P. and Ormerod, J.T. (2008). On semiparametric regression with O'Sullivan penalized splines. *Australian and New Zealand Journal of Statistics*, **50**, 179–198.

68. Ormerod, J.T., Wand, M.P. and Koch, I. (2008). Penalised spline support vector classifiers: computational issues. *Computational Statistics*, **23**, 623–641.

69. Kuo, F., Dunsmuir, W.T.M., Sloan, I.H., Wand, M.P. and Womersley, R.S. (2008). Quasi-Monte Carlo for highly structured generalised response models. *Methodology and Computing in Applied Probability*, **10**, 239–275.

70. Duong, T., Cowling, A., Koch, I. and Wand, M.P. (2008). Feature significance for multivariate kernel density estimation. *Computational Statistics and Data Analysis*, **52**, 4225–4242.

71. Smith, A.D.A.C. and Wand, M.P. (2008). Streamlined variance calculations for semiparametric mixed models. *Statistics in Medicine*, **27**, 435–448.

72. Ganguli, B. and Wand, M.P. (2007). Feature significance in generalized additive models. *Statistics and Computing*, **17**, 179–192.

73. Wand, M.P. (2007). Fisher information for generalised linear mixed models. *Journal of Multivariate Analysis*, **98**, 1412–1416.

74. Pearce, N.D. and Wand, M.P. (2006). Penalized splines and reproducing kernel methods. *The American Statistician*, **60**, 233–240.

75. Zhao, Y., Staudenmayer, J., Coull, B.A. and Wand, M.P. (2006). General design Bayesian generalized linear mixed models. *Statistical Science*, **21**, 35–51.

76. Wand, M.P. (2006). Support vector machine classification. *Parabola*, **42 (2)**, 21–37.

77. Ganguli, B. and Wand, M.P. (2006). Additive models for geo-referenced failure time data. *Statistics in Medicine*, **25**, 2469–2482.

78. Crainiceanu, C., Ruppert, D., Claeskens, G. and Wand, M.P. (2005). Exact likelihood ratio tests for penalised splines. *Biometrika*, **92**, 91–103.

79. Crainiceanu, C., Ruppert, D. and Wand, M.P. (2005). Bayesian analysis for penalized spline regression using WinBUGS. *Journal of Statistical Software*, **14**, Article 14, 1–24.

80. Ganguli, B., Staudenmayer, J. and Wand, M.P. (2005). Additive models with predictors subject to measurement error. *Australia and New Zealand Journal of Statistics*, **47**, 193–202.

81. Salganik, M.P., Milford, E.L., Hardie, D.L., Shaw, S. and Wand, M.P. (2005). Classifying antibodies using flow cytometry data: class prediction and class discovery. *Biometrical Journal*, **47**, 740–745.

82. Durban, M., Harezlak, J., Wand, M.P. and Carroll, R.J. (2005). Simple fitting of subject-specific curves for longitudinal data. *Statistics in Medicine*, **24**, 1153–1167.

83. Ganguli, B. and Wand, M.P. (2004). Feature significance in geostatistics. *Journal of Computational and Graphical Statistics*, **13**, 954–973.

84. Ngo, L. and Wand, M.P. (2004). Smoothing with mixed model software. *Journal of Statistical Software*, **9**, Article 1, 1–54.

85. French, J.L. and Wand, M.P. (2004). Generalized additive models for cancer mapping with incomplete covariates. *Biostatistics*, **5**, 177–191.

86. Salganik, M.P., Wand, M.P. and Lange, N. (2004). Comparison of feature significance quantile approximations. *Australian and New Zealand Journal of Statistics*, **46**, 569–581.

87. Wand, M.P. (2003). Smoothing and mixed models. *Computational Statistics*, **18**, 223–249.

88. Kammann, E.E. and Wand, M.P. (2003). Geoadditive models. *Journal of the Royal Statistical Society, Series C*, **52**, 1–18.

89. Cai, T., Hyndman, R.J. and Wand, M.P. (2002). Mixed model-based hazard estimation. *Journal of Computational and Graphical Statistics*, **11**, 784–798.

90. Aerts, M., Claeskens, G. and Wand, M.P. (2002). Some theory for penalized spline generalized additive models. *Journal of Statistical Planning and Inference*, **103**, 455–470.

91. Wand, M.P. (2002). Vector differential calculus in statistics. *The American Statistician*, **56**, 55–62.

92. Betensky, R.A., Lindsey, J.C., Ryan, L.M. and Wand, M.P. (2002). A local likelihood proportional hazards model for interval censored data. *Statistics in Medicine*, **21**, 263–275.

93. Coull, B.A., Schwartz, J. and Wand, M.P. (2001). Respiratory health and air pollution: additive mixed model analyses. *Biostatistics*, **2**, 337–349.

94. Coull, B.A., Ruppert, D. and Wand, M.P. (2001). Simple incorporation of interactions into additive models. *Biometrics*, **57**, 539–545.

95. Mammen, E., Marron, J.S., Turlach, B.A. and Wand, M.P. (2001). A general framework for constrained smoothing. *Statistical Science*, **16**, 232–248.

96. Parise, H., Wand, M.P., Ruppert, D. and Ryan, L. (2001). Incorporation of historical controls using semiparametric mixed models. *Journal of the Royal Statistical Society, Series C*, **50**, 31–42.

97. Zanobetti, A., Wand, M.P., Schwartz, J. and Ryan, L.M. (2000). Generalized additive distributed lag models: quantifying mortality displacement. *Biostatistics*, **1**, 279–292.

98. Thurston, S.W., Wand, M.P. and Weincke, J.K. (2000). Negative binomial additive models, *Biometrics*, **56**, 139–144.

99. Wand, M.P. (2000). A comparison of regression spline smoothing procedures. *Computational Statistics*, **15**, 443–462.

100. Wand, M. P. (1999). A central limit theorem for local polynomial backfitting estimators. *Journal of Multivariate Analysis*, **70**, 57–65.

101. Wand, M.P. (1999). On the optimal amount of smoothing in penalized spline regression. *Biometrika*, **86**, 936–940.

102. Opsomer, J. D., Ruppert, D., Wand, M. P., Holst, U. and Hössjer, O. (1999). Kriging with nonparametric variance function estimation. *Biometrics*, **55**, 704–710.

103. Gijbels, I., Pope, A. and Wand, M. P. (1999). Understanding exponential smoothing via kernel regression. *Journal of the Royal Statistical Society, Series B*, **61**, 39–50.

104. Betensky, R. A., Lindsey, J. C., Ryan, L. M. and Wand, M. P. (1999). Local EM estimation of the hazard function for interval censored data. *Biometrics*, **55**, 238–245.

105. Augustyns, I. and Wand, M. P. (1998). Bandwidth selection for local polynomial smoothing of multinomial data. *Computational Statistics*, **13**, 447–462.

106. Wand, M.P. (1998). Finite sample performance of deconvolving density estimators. *Statistics and Probability Letters*, **37**, 131–139.

107. Carroll, R.J., Fan, J., Gijbels, I. and Wand, M.P. (1997). Generalized partially linear single-index models. *Journal of the American Statistical Association*, **92**, 477–489.

108. Wand, M.P. and Gutierrez, R.G. (1997). Exact risk approaches to smoothing parameter selection. *Journal of Nonparametric Statistics*, **8**, 337–354.

109. Hyndman, R.J. and Wand, M.P. (1997). Nonparametric autocovariance function estimation. *Australian Journal of Statistics*, **39**, 313–324.

110. Wand, M.P. (1997). Data-based choice of histogram bin width. *The American Statistician*, **51**, 59–64.

111. Ruppert, D., Wand, M.P., Holst, U. and Hössjer, O. (1997). Local polynomial variance function estimation. *Technometrics*, **39**, 262–273.

112. Turlach, B.A. and Wand, M.P. (1996). Fast computation of auxiliary quantities in local polynomial regression. *Journal of Computational and Graphical Statistics*, **5**, 337–350.

113. González-Manteiga, W., Sánchez-Sellero, C. and Wand, M.P. (1996). Accuracy of binned kernel functional approximations. *Computational Statistics and Data Analysis*, **22**, 1–16.

114. Hall, P. and Wand, M.P. (1996). On the accuracy of binned kernel density estimators. *Journal of Multivariate Analysis*, **56**, 165–184.

115. Aldershof, B., Marron, J.S., Park, B.U. and Wand, M.P. (1995). Facts about the Gaussian probability density function. *Applicable Analysis*, **59**, 289–306.

116. Ruppert, D., Sheather, S.J. and Wand, M.P. (1995). An effective bandwidth selector for local least squares regression. *Journal of the American Statistical Association*, **90**, 1257–1270.

117. Fan, J., Heckman, N.E. and Wand, M.P. (1995). Local polynomial kernel regression for generalized linear models and quasi-likelihood functions. *Journal of the American Statistical Association*, **90**, 141–150.

118. Herrmann, E., Wand, M.P., Engel, J. and Gasser, Th. (1995). A bandwidth selector for bivariate kernel regression. *Journal of the Royal Statistical Society, Series B*, **57**, 171–180.

119. Wand, M.P. (1994). Fast computation of multivariate kernel estimators. *Journal of Computational and Graphical Statistics*, **3**, 433–445.

120. Ruppert, D. and Wand, M.P. (1994). Multivariate locally weighted least squares regression. *The Annals of Statistics*, **22**, 1346–1370.

121. Wand, M. P. and Jones, M. C. (1994). Multivariate plug-in bandwidth selection. *Computational Statistics*, **9**, 97–116.

122. Devroye, L. and Wand, M.P. (1993). On the influence of the density on the kernel estimate. *Statistics*, **24**, 215–233.

123. Wand, M.P. and Devroye, L. (1993). How easy is a given density to estimate? *Computational Statistics and Data Analysis*, **16**, 311–323.

124. Wand, M.P. and Jones, M.C. (1993). Comparison of smoothing parameterizations in bivariate density estimation. *Journal of the American Statistical Association*, **88**, 520–528.

125. Wand, M.P. (1992). Error analyses for general multivariate kernel estimators. *Journal of Nonparametric Statistics*, **2**, 1–15.

126. Marron, J. S. and Wand, M. P. (1992). Exact mean integrated squared error. *The Annals of Statistics*, **20**, 712–736.

127. Jones, M.C. and Wand, M.P. (1992). Asymptotic effectiveness of some higher order kernels. *Journal of Statistical Planning and Inference*, **31**, 15 – 21.

128. Ruppert, D. and Wand, M.P. (1992). Correcting for kurtosis in density estimation. *Australian Journal of Statistics*, **34**, 19–29.

129. Wand, M.P. (1992). Finite sample performance of density estimators under moving average dependence. *Statistics and Probability Letters*, **13**, 109 – 115.

130. Scott, D.W. and Wand, M.P. (1991). Feasibility of multivariate density estimates. *Biometrika*, **78**, 197 – 205.

131. Wand, M.P., Marron, J.S. and Ruppert, D. (1991). Transformations in density estimation (with discussion). *Journal of the American Statistical Association*, **86**, 343–361.

132. Carroll, R.J. and Wand M.P. (1991). Semiparametric estimation in logistic measurement error models. *Journal of the Royal Statistical Society, Series B*, **53**, 573 – 585.

133. Wand, M.P. (1990). On exact L_1 rates of convergence in nonparametric kernel regression. *Scandinavian Journal of Statistics*, **17**, 251 – 256.

134. Wand, M.P. and Schucany, W.R. (1990). Gaussian-based kernels. *Canadian Journal of Statistics*, **18**, 197–204.

135. Härdle, W., Marron, J.S. and Wand, M.P. (1990). Bandwidth choice for density derivatives. *Journal of the Royal Statistical Society, Series B*, **52**, 223–232.

136. Hall, P. and Wand, M.P. (1988). On nonparametric discrimination using density differences. *Biometrika*, **75**, 541–547.

137. Hall, P. and Wand, M.P. (1988). Minimizing L_1 distance in nonparametric density estimation. *Journal of Multivariate Analysis*, **26**, 59–88.

138. Hall, P. and Wand, M.P. (1988). On the minimization of absolute distance in kernel density estimation. *Statistics and Probability Letters*, **6**, 311–314.

Applications That Use Statistics Refereed Journal Articles:

1. Rust, L., Nizio, K.D., Wand, M.P. and Forbes, S.L. (2018). Investigating the detection limits of scent-detection dogs to residual blood odour on clothing. *Forensic Chemistry*, **9**, 62–75.

2. Kayal, M., Vercelloni, J., Wand, M.P. and Adjeroud, M. (2015). Searching for the best bet in life-strategy: a quantitative approach to individual performance and population dynamics in reef-building corals. *Ecological Complexity*, **23**, 73–84.

3. Gloag, E.S., Turnbull, L., Huang, A., Vallotton, P., Wang, H, Nolan, L.M., Mililli, L., Hunt, C., Lu, J., Osvath, S.R., Monahan, L.G., Cavaliere, R., Charles, I.G., Wand, M.P., Gee, M.L., Prabhakar, R. and Whitchurch, C.B. (2013). Self-organization of bacterial biofilms is facilitated by extracellular DNA. *Proceedings of the National Academy of Sciences of the United States of America*, **110(28)**, 11541–11546.

4. Oakes, S.R., Robertson, F.G., Kench, J.G., Gardiner-Garden, M., Wand, M.P., Green, J.E. and Ormandy, C.J. (2007). Loss of mammary epithelial prolactin receptor delays tumor formation by reducing cell proliferation in low-grade preinvasive lesions. *Oncogene*, **26(4)**, 543–553.

5. Werneck, G.L., Costa, C.H.N., Walker, A.M., David, J.R., Wand, M. and Maguire, J.H. (2006). Multilevel modelling of the incidence of visceral leishmaniasis in Teresina, Brazil. *Epidemiology and Infection*, **135**, 195–201.

6. Salganik, M.P., Hardie, D.L., Swart, B., Dandie, G.W., Zola, H., Shaw, S., Shapiro, H., Tinckam, K., Milford, E.L. and Wand, M.P. (2005). Detecting antibodies with similar reactivity patterns in the HLDA8 blind panel of flow cytometry data. *Journal of Immunological Methods*, **305**, 67–74.

7. Swart, B., Salganik, M.P., Wand, M.P., Tinckam, K., Milford, E.L, Drbal, K., Angelisova, P., Horejsi, V., Macardle, P., Bailey, S., Hollemweguer, E., Hodge, G., Naim, J., Millard, D., Dagdeviren, A., Dandie, G.W. and Zola, H. (2005). The HLDA8 blind panel: findings and conclusions. *Journal of Immunological Methods*, **305**, 75–83.

8. Wright, R., Finn, P., Contreras, J.P., Cohen, S., Wright, R.O., Staudenmayer, J., Wand, M.P., Perkins, D., Weiss, S. and Gold, D.R. (2004). Chronic caregiver stress and IgE expression, allergen-induced proliferation, and cytokine profiles in a birth cohort predisposed to atopy. *Journal of Allergy and Clinical Immunology*, **113(6)**, 1051–1057.

9. Myatt, T.A., Johnston, S.J., Zhengfa Z., Wand, M. Kebadze, T., Rudnick, S. and Milton, D.K. (2004). Detection of airborne rhinovirus and its relation to outdoor air supply in office environments *American Journal of Respiratory and Critical Care Medine*, **169**, 1187–1190.

10. Kim, J.Y., Hauser R., Wand M.P., Herrick R.F., Houk, R.S, Aeschliman, D.B., Woodin, M.A. and Christiani, D.C. (2003). Association of expired nitric oxide with urinary metal concentrations in boilermakers exposed to residual oil fly ash. *American Journal of Industrial Medicine* 44(5), 458–466.

11. Kim, J.Y., Hauser R., Wand M.P., Herrick R.F., Amarasiriwardena C.J. and Christiani D.C. (2003). The association of expired nitric oxide with occupational particulate metal exposure. *Environmental Research*, **93(2)**, 158–166.

12. Hauser, R., Rice, T.M., Krishha Murthy, G.G., Wand, M.P., Lewis, D., Bledsoe, T. and Paulauskis, J. (2003). The upper airway response to pollen is enhanced by exposure to combustion particulates: a pilot human experimental challenge study. *Environmental Health Perspectives*, **111(5)**, 676–680.

13. Kim, J.Y., Wand, M.P., Hauser, R., Mukherjee, S., Herrick, R.F. and Christiani, D.C. (2003). Association of expired nitric oxide with occupational particulate exposure. *Environmental Health Perspectives*, **111(4)**, 472–477.

14. Werneck, G.L., Costa, C.H., Walker, A.M., David, J.R., Wand M. and Maguire, J.H. (2002). The urban spread of visceral leishmaniasis: clues from spatial analysis. *Epidemiology*, **13(3)**, 364–367.

15. Moore, P.E., Laporte, J.D., Abraham, J.H., Schwartzman, I.N., Yandava, C.N., Silverman, E.S., Drazen, J.M., Wand, M.P., Panettieri, R. and Shore, S.A. (2000). Polymorphism of the β_2-adrenergic receptor gene and densensitization in human airway smooth muscle. *American Journal of Respiratory and Critical Care Medicine*, **162**, 2117–2124.

16. Wechsler, M.E., Grasemann, H., Deykin, A., Silverman, E.K., Yandava, C.N., Isreal, E., Wand, M. and Drazen, J.M. (2000). Exhaled nitric oxide in patients with asthma: Association with NOS1 genotype. *American Journal of Respiratory and Critical Care Medicine*, **162**, 2043–2047.

Comments on Discussion Papers:

1. Ormerod, J.T. and Wand, M.P. (2012). Comment on paper by Joseph. *Technometrics*, **54**, 233–236.

2. Ormerod, J.T. and Wand, M.P. (2009). Comment on paper by Rue, Martino and Chopin. *Journal of the Royal Statistical Society, Series B*, **71**, 377–378.

3. Fan, Y., Leslie, D.S. and Wand, M.P. (2007). Comment on paper by Del Moral, Doucet and Jasra. In *Bayesian Statistics 8*, editors J.M. Bernado, M.J. Bayarri, J.O. Berger, A.P. Dawid, D. Heckerman, A.F.M. Smith and M. West. Oxford, U.K.: Oxford University Press.

4. French, J.L., Kammann, E.E. and Wand, M.P. (2001). Comment on paper by Ke and Wang. *Journal of the American Statistical Association*, **96**, 1285–1288.

5. Brumback, B.A., Ruppert, D. and Wand, M.P. (1999). Comment on paper by Shively, Kohn and Wood. *Journal of the American Statistical Association*, **94**, 794–797.

6. Sheather, S.J., Wand, M.P., Smith, M.S. and Kohn, R. (1996). Comment on papers by Cleveland and Loader, Marron, and Seifert and Gasser, in *Statistical Theory and Computational Aspects of Smoothing*, editors W. Härdle and M.G. Schimek. Physica Verlag Series: "Contributions in Statistics", pp. 93–102.

Rejoinders on Discussion Papers:

1. Wand, M.P. (2017). Rejoinder for discussion on paper by Wand. *Journal of the American Statistical Association*, **112**, 166–168.

2. Wand, M.P., Marron, J.S. and Ruppert, D. (1991). Rejoinder for discussion on paper by Wand, Marron and Ruppert. *Journal of the American Statistical Association*, **86**, 360–361.

Conference Proceedings Articles:

1. Maestrini, L. and Wand, M.P. (2018). Variational message passing for skew t regression. In *Proceedings of the 33rd International Workshop on Statistical Modelling*, Bristol, United Kingdom, pp. 204–208.

2. Maestrini, L. and Wand, M.P. (2018). Variational approximations for frequentist and Bayesian inference. In A. Abbruzzo, D. Piacentino, M. Chiodi and E. Brentari (editors), In *Proceedings of the 49th Scientific Meeting of the Italian Statistical Society*, Palermo, Italy, pp. 1–6.

3. Michaelson, G., Roughan, M., Tuke, J., Wand, M.P. and Bush, R. (2018). Rasch analysis of HTTPS reachability. In *Proceedings of the International Federation for Information Processing Networking 2018, Zurich, Switzerland*, pp. 1–10.

4. Neville, S.E. and Wand, M.P. (2011). Generalised extreme value geoadditive models via variational Bayes. In *Proceedings of the First Conference on Spatial Statistics 2011 – Mapping Global Change, Twente, The Netherlands: Procedia Environmental Sciences*, **3**, pp. 8–13.

5. Ormerod, J.T. and Wand, M.P. (2008). Variational approximations for logistic mixed models. In *Proceedings of the Ninth Iranian Statistics Conference, Department of Statistics, University of Isfahan, Isfahan, Iran*, pp. 450–467.

6. Cowling, A., Duong, T., Koch, I. and Wand, M.P. (2006). Feature significance for multivariate data and kernel density estimation. In *Proceedings of the Eighth Workshop on Nonparametric Statistical Analysis and Related Areas*, Keio University, Tokyo, pp. 34–42.

7. Ormerod, J.T., Wand, M.P. and Koch, I. (2005). Penalised spline support vector classifiers: computational issues. In *Proceedings of the 20th International Workshop on Statistical Modelling, Sydney, Australia* A.R. Francis, K.M. Matawie, A. Oshlack, G.K. Smyth (eds). pp. 33–47.

8. Kim, E.-Y., Zeng, Q., Rawn, J., Wand, M., Young, A.J., Milford, E.L, Mentzer, S.J. and Greenes, R.A. (2002). Using a neural network with flow cytometry histograms to recognize cell surface protein binding patterns. In *Proceedings, American Medical Informatics Association Annual Fall Symposium*, pp. 380–384.

9. Zeng, Q., Wand, M., Young, A.J., Rawn, J., Milford, E.L., Mentzer, S.J. and Greenes, R.A. (2002). Matching flow-cytometry histograms using information theory in feature space. In *Proceedings, American Medical Informatics Association Annual Fall Symposium*, pp. 929–933.

10. Zeng, Q., Young, A.J., Boxwala, A., Rawn, J., Long, W., Wand, M., Salganik, M., Milford, E.L., Mentzer, S.J. and Greenes. R.A. (2001). Molecular identification using flow cytometry histograms and information theory. In *Proceedings, American Medical Informatics Association Annual Fall Symposium*, pp. 776–780.

11. Claeskens, G., Aerts, M. and Wand, M.P. (1999). Some results on penalized spline estimation in generalized additive and semiparametric models. In *Proceedings of the 52nd Session of the International Statistical Institute*, Helsinki, Finland, pp. 207–208.

12. Marron, J.S., Turlach, B.A. and Wand, M.P. (1997). Local polynomial smoothing under qualitative constraints. In L. Billard and N.I. Fisher (editors), *Graph-Image-Vision, Vol. 28 of Computing Science and Statistics, Interface Foundation of North America, Inc., Fairfax Station, Virginia, U.S.A.*, pp. 647–652.

13. Opsomer, J. D., Ruppert, D., Wand, M. P., Holst, U. and Hössjer, O. (1997). An application of kriging with nonparametric variance function estimation. In *1997 Proceedings of the Biometrics Section, American Statistical Association, Alexandria, Virginia U.S.A.*, pp. 123–128.

Miscellaneous Publications:

1. Wand, M. (2023). Hall, Peter Gavin (1951–2016). *Australian Dictionary of Biography*, `https://adb.anu.edu.au`

2. Griffiths, D. and Wand, M.P. (2020). Kenneth G. Russell, 1950 – 2019. *The Institute of Mathematical Statistics Bulletin*, **49**(5), 14–15.

3. Wand, M.P. (2019). Semiparametric regression and the `HRW` R package. Software Highlight. *The International Society for Bayesian Analysis Bulletin*. **26**(3), 7–9.

4. Wand, M. (2016). Peter Gavin Hall, 20 November 1951 – 9 January 2016. *The Australian Mathematical Society Gazette*, **43**, 17–19.

5. Gottardo, R., Brinkman, R.R., Luta, G. and Wand, M.P. (2009). Recent bioinformatics advances in the analysis of high throughput flow cytometry data. In *Advances In Bioinformatics (Special Issue)*, Article ID 461762, Hindawi Publishing Corporation.

6. Wand, M.P. and Schwartz, J. (2002). Smoothing in Environmental Epidemiology. *Encyclopedia of Environmetrics*, **4**, 2020–2023.

7. Simonoff, J.S. and Wand, M. P. (1996). Nichtparametrische Schätzung einer Wahrscheinlichkeitsfunktion ohne Voraussetzungen Über Deren Form (English: Nonparametric Estimation of Probability and Density Functions), in *Collection of Procedures for Planning and Analysis of Experiments*, ed. D. Rasch, G. Herrendörfer, J. Bock, N. Victor and V. Guiard, Oldenbourg–Verlag: München, 633–643 (in German).

Theses:

1. Wand, M.P. (1988). *On Nonparametric Curve Estimation and Discrimination*. Doctor of Philosophy thesis. The Australian National University, Canberra, Australia.

2. Wand, M.P. (1985). *A Nonparametric Two-Stage Procedure for Estimating a Probability Density Function*. Bachelor of Mathematics Honours thesis. The University of Wollongong, Wollongong, Australia.

Book Reviews:

1. M.P. Wand (2012). Review of *Smoothing Splines: Methods and Applications* by Y. Wang. *Australian and New Zealand Journal of Statistics*, **54**, 507–508.

2. M.P. Wand (2005). Review of *The Analysis of Variance: Fixed, Random and Mixed Models* by H. Sahai and M.I. Ageel. *Australian and New Zealand Journal of Statistics*, **47**, 255.

3. M.P. Wand (2001). Review of *Local Regression and Likelihood* by C. Loader. *Journal of the American Statistical Association*, **96**, 343.

4. M.P. Wand (2000). Review of *Statistical Tests for Mixed Linear Models* by A.I. Khuri, T. Mathew and B.K. Sinha. *Australian and New Zealand Journal of Statistics*, **42**, 247–248.

5. M.P. Wand (1998). Review of *Functional Data Analysis* by J.O. Ramsay and B.W. Silverman. *Australian and New Zealand Journal of Statistics*, **40**, 381–382.

Software Packages in the R Language:

1. He, V.X. Wand, M.P. (2025). **gamselBayes 2.0**. Bayesian generalized additive model selection. R package. `https://CRAN.R-project.org/package=gamselBayes`
Roles: author and maintainer.

2. Wand, M.P. (2021). **densEstBayes 1.0**. Density estimation via Bayesian inference engines. R package. `https://CRAN.R-project.org/package=densEstBayes`
Roles: author and maintainer.

3. Harezlak, J., Ruppert, D. and Wand, M.P. (2021). **HRW 1.0**. Datasets, functions and scripts for semiparametric regression supporting Harezlak, Ruppert & Wand (2018). R package. `https://CRAN.R-project.org/package=HRW`
Roles: author and maintainer.

4. Wand, M.P. and Yu, J.F.C. (2019). **glmmEP 1.0**. Generalized linear mixed model analysis via expectation propagation.
R package. `https://CRAN.R-project.org/package=glmmEP`
Roles: author and maintainer.

5. Pham, T. and Wand, M.P. (2019). **gammSlice 2.0**. Generalized additive mixed model analysis via slice sampling.
R package. `https://CRAN.R-project.org/package=gammSlice`
Roles: author and maintainer.

6. Wand, M.P., Luta, G. and Naumann, U. (2023). **curvHDR 1.2**. Filtering, also known as gating, of flow cytometry samples using the curvHDR method.
R package. `https://CRAN.R-project.org/package=curvHDR`
Roles: author and maintainer.

7. Wand, M.P. and Ripley, B.D. (2015). **KernSmooth 2.23**. Functions for kernel smoothing corresponding to the book: Wand, M.P. and Jones, M.C. (1995) "Kernel Smoothing". R package. `https://CRAN.R-project.org/package=KernSmooth`
`KernSmooth` is an R base package. As of 14th September 2020 it has 134 reverse dependencies packages.
Role: author.

8. Duong, T. and Wand, M.P. (2015). **feature 1.2.13**. Local inferential feature significance for multivariate kernel density estimation. R package.
`https://CRAN.R-project.org/package=feature`
Role: author.

9. Ormerod, J.T. and Wand, M.P. (2020). **LowRankQP 1.0.4**. Low-rank quadratic programming. R package.
`https://CRAN.R-project.org/package=LowRankQP` Role: author.

Contributions to R Packages:

1. Co-author (with T. Hastie) the vignette within the R package:

   Chouldechova, A. and Hastie, T. (2024). gamsel 1.8. Fit regularization path for generalized additive models. R package. `http://cran.r-project.org/package=gamsel`

2. The function `hdrbw()` for highest density region estimation bandwidth selection, within the R package:

   Hyndman, R.J. (2021). hdrcde 3.4. Highest density regions and conditional density estimation. R package. `http://cran.r-project.org/package=hdrcde`

Vignettes for R Packages:

1. Wand, M.P. (2020). Vignette for the R package densEstBayes.
2. Wand, M.P. and Yu, J.C.F. (2018). Vignette for the R package glmmEP.
3. Luta, G., Naumann, U. and Wand, M.P. (2010). Vignette for the R package curvHDR.

Grants:

1. *Technology-Driven and Scalable Regression Methodology, Computing and Theory.* Chief Investigators: M.P. Wand and J.J.J. Wang Australian Research Council Discovery Project, 2023–2025. Amount: 353,479 Australian dollars.
2. *Fast Approximate Inference Methods: New Algorithms, Applications and Theory.* Chief Investigator: M.P. Wand ; Partner Investigator G.W. Peters. Australian Research Council Discovery Project, 2018–2020. Amount: 386,828 Australian dollars.
3. *Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers* Australian Research Council Centre of Excellence, 2014–2020. Chief Investigators: P. Hall, P. Bartlett, N. Bean, K. Burrage, J. De Gier, A. Delaigle, P. Forrester, J. Geweke, R. Kohn, D. Kroese, K.L. Mengersen, A. Pettitt, P.K. Pollett, M. Roughan, L.M. Ryan, P. Taylor, I. Turner and M.P. Wand. Amount: 20,000,000 Australian dollars.
4. *Semiparametric Regression for Streaming Data.* Chief Investigator: M.P. Wand. Australian Research Council Discovery Project, 2014–2016. Amount: 375,000 Australian dollars.
5. *Fast Approximate Inference Methods for Flexible Regression.* Chief Investigators: M.P. Wand, J.T. Ormerod; Partner Investigator: Y.M. Wang. Australian Research Council Discovery Project, 2011–2013. Amount: 330,000 Australian dollars.
6. *Generalised Linear Mixed Models: Theory, Methods and New Areas of Application.* Chief Investigator: M.P. Wand. Australian Research Council Discovery Project, 2008–2010. Amount: 250,000 Australian dollars.
7. University of Wollongong Faculty of Informatics Research Development Scheme, 2008. Amount: 1,500 Australian dollars.
8. *Statistical Methods for Flow Cytometric Data.* Chief Investigators: M.P. Wand and I. Koch. Australian Research Council Discovery Project, 2005–2007. Amount: 301,000 Australian dollars.
9. *Semiparametric Regression and Environmental Health.* Principal Investigator: M.P. Wand. U.S. National Institute of Environmental Health Sciences, 2000. Amount: 482,284 U.S. dollars.
10. *New Spatial Analysis Methods for Improved Hazard/Risk Identification.* Joint with B. Wintle, J. Elith and D. Leonte. As part of the Australian Centre of Excellence for Risk Analysis, 2007. Amount: 38,300 Australian dollars.

11. *Development of Statistical Learning Methods for Classifying Antibodies from Flow Cytometry Data.* University of New South Wales Faculty Research Grants Program, 2003. Joint with I. Koch. Amount: 8,000 Australian dollars.

12. *Topics in Epidemiologically-based Environmental Risk Assessment.* Principal Investigator: M.P. Wand, with P. Catalano, B. Coull and L. Ryan. U.S. Environmental Protection Agency, 2000. Amount: 250,000 U.S. dollars.

13. *Advancement of Local Polynomial Smoothers.* Small Australian Research Council Grant, 1996. Amount: 12,500 Australian dollars.

14. *Topics in Nonparametric Curve Estimation.* (with S. Sheather and G. Eagleson) Small Australian Research Council Grant, 1995. Amount: 17,500 Australian dollars.

15. *Fast Computation of Multivariate Kernel Estimators.* Australian Graduate School of Management, 1993. Amount: 5,000 Australian dollars.

Citation Awards:

Member of the *Stanford's Top 2% Scientists* list during 2020–2024.

Member of the *Thomson Reuters Highly Cited Researchers 2001* list (one of 122 in Australia, 356 in Mathematics and 7 in Australian Mathematics; as of 7th August, 2013).

Ranked 23 among *Highly Cited Authors in Mathematics and Statistics 1991–2001* (*Science Watch, May-June, 2002*).

Citation Counts for Statistics Publications:

Publication	times cited
Wand & Jones (1995), book.	*4428
Ruppert, Wand & Carroll (2003), book.	*2414
Ruppert & Wand (1994), *Ann. Statist.*	719
Carroll, Fan, Gijbels & Wand (1997), *J. Amer. Statist. Assoc.*	685
Ruppert, Sheather & Wand (1995), *J. Amer. Statist. Assoc.*	581
Marron & Wand (1992), *Ann. Statist.*	504
Kammann & Wand (2003), *J. Royal Statist. Soc, C.*	359
Wand & Jones (1994), *Comput. Statist.*	276
Fan, Heckman & Wand (1995), *J. Amer. Statist. Assoc.*	258
Ormerod & Wand (2010), *The American Statistician*	257
Wand & Jones (1993), *J. Amer. Statist. Assoc.*	243
Zanobetti, Wand, Schwartz & Ryan (2000), *Biostatistics*	235
Wand (1997), *Amer. Statist.*	198
Wand (2003), *Comput. Statist.*	196
Wand, Ruppert & Marron (1991), *J. Amer. Statist. Assoc.*	189
Huang & Wand (2013), *Baye. Ana.*	181
Ruppert, Wand, Holst & Hössjer, (1997), *Technometics*.	154
Wand & Ormerod (2008), *Austr. New Zeal. J. Statist.*	144
Carroll & Wand (1991), *J. Royal Statist. Soc., B.*	136
Ruppert, Wand & Carroll (2009), *Electron. J. Statist.*	134
Wand (1994), *J. Comput. Graph. Statist.*	135
Zhao, Staudenmayer, Coull & Wand (2006), *Statistical Science*	133
Durban, Harezlak, Wand & Carroll (2005), *Statist. Med.*	131
Mammen, Marron, Turlach & Wand (2001), *Statistical Science*	123
Wand, Ormerod, Padoan & Frühwirth *Baye. Ana.*	113
Crainiceanu, Ruppert & Wand (2005), *J. Statist. Software*	112
Brumback, Ruppert & Wand (1999), *J. Amer. Statist. Assoc.*	99
Crainiceanu, Ruppert, Claeskens & Wand (2005), *Biometrika*	91
Chacon, Duong & Wand (2011), *Statist. Sinica*	79
Hall & Wand (1996), *J. Multiv. Ana.*	79

Duong, Cowling, Koch & Wand (2008), *Comput. Statist. Data Ana.*	74
Wand & Schucany (1990), *Canadian J. Statist.*	74
Ormerod & Wand (2012), *J. Comput. Graph. Statist.*	69
Ngo & Wand (2004), *J. Statist. Software*	69
Wand (2000), *Comput. Statist.*	69
Härdle, Marron & Wand (1990), *J. Royal Statist. Soc.*	65
Faes, Ormerod & Wand (2011), *J. Amer. Statist. Assoc.*	62
Scott & Wand (1991), *Biometrika*	60
Harezlak, Ruppert & Wand (2018), book.	$*60$
Coull, Ruppert & Wand (2001), *Biometrics*	59
Cai, Hyndman & Wand (2002), *J. Comput. Graph. Statist.*	58
Betensky, Lindsey, Ryan & Wand (2002), *Statist. Med.*	50
Gijbels, Pope & Wand (1999), *J. Royal Statist. Soc., B.*	43
Hall & Wand (1988), *J. Multiv. Ana.*	43
French, Kammann & Wand (2001), *J. Amer. Statist. Assoc.*	39
Wand (1999), *Biometrika*	37
Samworth & Wand (2010), *Ann. Statist.*	36
Thurston, Wand & Weincke (2000) *Biometrics*	36
Betensky, Lindsey, Ryan & Wand (1999), *Biometrics*	36
Aerts, Claeskens & Wand (2002), *J. Statist. Plan. Inf.*	35
Neville, Ormerod & Wand (2014), *Electron. J. Statist.*	34
Wand & Ormerod (2011), *Elec. J. Statist.*	34
Pearce & Wand (2006), *Amer. Statist.*	34
Wand (1998), *Statist. Probab. Lett.*	34
Wand (2017), *J. Amer. Statist. Assoc.*	33
Hall, Ormerod & Wand (2011), *Statist. Sinica*	33
Hall & Wand (1988), *Biometrika*	33
Goldsmith, Crainiceanu & Wand (2011), *Electron. J. Statist.*	32
Coull, Schwartz & Wand (2001), *Biostatistics*	32
Luts, Broderick & Wand (2014), *J. Comput. Graph. Statist.*	32
Hall, Pham, Wand & Wang (2011), *Ann. Statist.*	32

(source: *Clarivate Web of Science* `https://www-webofscience-com`, 13th February 2026, for publications with 30 or more citations; with the exception of the asterisked (*) counts for books, which are based on *Google Scholar* and a regression approximation.)

Teaching Experience:

Harvard University

2000, 2001, 2002 Methods I (for biostatistics doctoral students)
1998, 1999, 2000 Statistical Inference II (for biostatistics doctoral students)
1999, 2001 Smoothing in Biostatistical Research
1999, 2002 Spatial Statistics

University of New South Wales

1992 MNGT 0230 (statistics for first year Masters of Business Administration students)
1993 Total Quality Management (for open learning students)
1993–4,6–7 Statistical Inference and its Applications (for management PhD students)
1993–5 MNGT 0230, MNGT 0231 (statistics for first year Masters of Business Administration students)
1996 Advanced Statistical Inference (for Finance PhD students)
1997 Theoretical Mathematics (for Statistics and Finance PhD students)
2003–2006 Higher Theory of Statistics (for second year undergraduate students)
Statistics for Life and Social Sciences (for first year undergraduate students)
Statistical Analysis of Microarrays (guest lecturer on third year course for Bioinformatics majors)
2005–2006 Data Mining and Its Business Applications (guest lecturer on course for Masters of Statistics students)

Rice University

1990-91 and 1991-92 STATISTICS 310 (third year mathematical statistics)
1990-91 and 1991-92 STATISTICS 431, STATISTICS 432 (graduate-level mathematical statistics)

Texas A&M University

1988-89 STATISTICS 211 (second year calculus-based statistics)
1989-90 STATISTICS 211, STATISTICS 221 (second year engineering statistics)

University of Technology Sydney

2011-2012 Honours Seminar (Advanced data analysis)
2013,2015 35393 Seminar (Statistics) (Advanced data analysis)
2019,2020 37458 Advanced Bayesian Methods
2022–2025 37457 Advanced Bayesian Methods

University of Wollongong

2007-2010 STATISTICS 902 (Honours-level advanced data analysis)

Post-Doctoral Research Associate Supervision:

1. Ryan Thompson (2024–)
2. Luca Maestrini (2018–2021).
3. Dorota Toczydłowska (2018–2021).
4. Marianne Menictas (2018).
5. Ye (Wilson) Chen (2016–2019).
6. Matt McLean (2015–2017).
7. Chris Oates (2015–2017).
8. David Rohde (2014–2015).
9. Alan Huang (2012–2014).
10. Jan Luts (2012–2013).
11. Tung Pham (2010–2011).

12. John Ormerod (2008–2010).
13. Tarn Duong (2005–2007).
14. Long Ngo (2001–2002).
15. John Staudenmayer (2000–2001).

Doctoral Student Supervision:

1. Virginia Xioajun He. PhD. University of Technology Sydney, 2025.
   Thesis title: *Bayesian Generalized Additive Model Selection*.
2. Aishwarya Bhaskaran. PhD. University of Technology Sydney, 2023.
   Thesis title: *Likelihood Theory and Methods for Generalized Linear Mixed Models*.
3. James Charles Frederick Yu. PhD. University of Technology Sydney, 2021.
   Thesis title: *Accurate Frequentist Generalised Linear Mixed Model Analysis via Expectation Propagation*.
4. Tui Hiraka Nolan. PhD. University of Technology Sydney, 2020.
   Thesis title: *Variational Bayesian Inference: Message Passing Schemes and Streamlined Multilevel Data Analysis*.
5. Andy Sang Il Kim. PhD. University of Technology Sydney, 2019.
   Thesis title: *Semiparametric Regression via Message Passing Algorithms*.
6. Cathy Yuen Yi Lee. PhD. University of Technology Sydney, 2016.
   Thesis title: *Fast Approximate Inference for Longitudinal and Multilevel Data Analysis*.
7. Shen Wang. PhD. University of Wollongong, 2016.
   Thesis title: *Variational Inference Machines for Semiparametric Regression*.
8. Marianne Menictas. PhD. University of Technology Sydney, 2015.
   Thesis title: *Variational Inference for Heteroscedastic and Longitudinal Regression Models*.
9. Sarah Elizabeth Neville. PhD. University of Wollongong, 2013.
   Thesis title: *Elaborate Distribution Semiparametric Regression via Mean Field Variational Bayes*.
10. Nathan Douglas Pearce. PhD. The University of New South Wales, 2010.
    Thesis title: *Kernel Methods for Data Analysis*.
11. John Thomas Ormerod. PhD. The University of New South Wales, 2008.
    Thesis title: *On Semiparametric Regression and Data Mining*.
12. Mikhail Peter Salganik. DSc. Harvard University, 2006.
    Thesis title: *Biomedical Applications of Smoothing and Feature Significance.*
13. Yihua Zhao. PhD. Harvard University, 2003.
    Thesis title: *General Design Bayesian Generalized Linear Models with Applications to Spatial Statistics.*
14. Bhaswati Ganguli. DSc. Harvard University, 2002.
    Thesis title: *Feature Significance and Geo-Additive Models.*
15. Erin Elizabeth Kammann (now Erin Kammann Lake). DSc. Harvard University, 2001.
    Thesis title: *Geoadditive and Robust Mixed Models.*
16. Jonathan Lloyd French, DSc. Harvard University, 2000.
    Thesis title: *Analysis of Environmental Health Data with Missing Values.*

Partial Doctoral Student Supervisions:

1. Virginia Murru (PhD. University of Padua, Italy, in progress)
2. Emanuele Degani (PhD. University of Padua, Italy, 2021)
3. Gioia Di Credico (PhD. University of Padua, Italy, 2019)
4. Hon Hwang (PhD. University of Technology Sydney, 2019)
5. Luca Maestrini (PhD. University of Padua, Italy, 2019)
6. Shelley Liu (PhD. Harvard University, U.S.A., 2017)
7. Jeff Goldsmith (PhD. Johns Hopkins University, U.S.A., 2012)
8. Chiara Bocci (PhD. University of Florence, Italy, 2010)
9. Simone Padoan (PhD. University of Padua, Italy, 2007)
10. Antonella Zanobetti (DSc. Harvard University, U.S.A., 2001)
11. Helen Parise (DSc. Harvard University, U.S.A., 1999)
12. Ilse Augustyns (PhD. Limburgs Universitair Centrum, Belgium, 1998)

Partial Masters Student Supervision:

1. Christian Tezza (Master of Quantitative Finance and Insurance, University of Turin, Italy, 2020)
2. Omar Ghattas (Master of Mathematics (Advanced), Australian National University, 2019)

Current Doctoral Student:

1. Nurul Fritriyani.

Masters Degree Thesis Supervision:

1. Eman Alfaifi. MSc. University of Technology Sydney, 2018.
   Thesis title: *Use of Expectation Propagation for Probability Density Function Estimation.*
2. James Charles Frederick Yu. MSc. University of Technology Sydney, 2016.
   Thesis title: *Mean Field Variational Bayes for Poisson Response Penalised Wavelet Models.*
3. Tui Hirake Nolan. MSc. University of Technology Sydney, 2015.
   Thesis title: *Accuracy Comparison of Variational Approximations Applied to Binary Response Regression Models.*
4. Andy Sang Il Kim. MSc. University of Technology Sydney, 2013.
   Thesis title: *Robust Real-Time Nonparametric Regression.*
5. Andrew Duncan Smith. MStats. The University of New South Wales, 2006.
   Thesis title: *Streamlined Error Covariance Matrix Estimation for Semiparametric Linear Mixed Models.*
6. John Thomas Ormerod. MStats. The University of New South Wales, 2005.
   Thesis title: *Low Rank Kernel Penalized Spline Support Vector Machines.*

Honours Thesis Supervision:

1. Yilong Jiang. Bachelor of Mathematical Sciences (Honours).
   University of Technology Sydney, 2025.
   Thesis title: *Bayesian Generalized Additive Model Selection with Pólya-Gamma Augmentation*.

2. Jiayi Wu. Bachelor of Mathematical Sciences (Honours).
   University of Technology Sydney, 2025.
   Thesis title: *Variable Selection in Generalized Additive Models using Pólya-Gamma Variational Bayesian Inference*.

3. Mark Saad Youssef. Bachelor of Mathematical Sciences (Honours).
   University of Technology Sydney, 2023.
   Thesis title: *Gaussian Variational Approximate Inference for Generalised Linear Mixed Models with Crossed Random Effects*.

4. Cathy Yuen Yi Lee. Bachelor of Mathematics (Honours).
   University of Wollongong, 2009.
   Thesis title: *Multivariate Highest Density Difference Region Estimation*.

5. Sarah Elizabeth Neville. Bachelor of Mathematics (Honours).
   University of Wollongong, 2008.
   Thesis title: *Spatial Statistics and Dynamic 3D Graphics*

6. Jennifer Kate Marley. Bachelor of Mathematics (Honours).
   University of Wollongong, 2007.
   Thesis title: *Illustrations of Non-standard Bayesian Semiparametric Regression*.

Leadership Roles:

Head of Department of Statistics, The University of New South Wales, 2006.

Director of the Environmental Health Training Grant, Department of Biostatistics, Harvard University, 1999-2002.

Professional Activities:

Member of the College of Experts, Australian Research Council, 2025–2027.

Member of the committee for the awarding of the Peter Gavin Hall Institute of Mathematical Statistics Early Career Prize for each of 2025 and 2026.

Champion of Diversity (Mathematical Sciences) within the Australian Academy of Science for promotion of diversity for nominations and elections, May 2023 – May 2024.

Champion of Diversity within the Australian Academy of Science for identification of potential fellowship candidates to enhance the diversity of the academy's fellowship.

Chair of Sectional Committee 1 (Mathematical Sciences) of the Australian Academy of Science for evaluation of fellowship nominations, May 2021 – May 2023.

Member of selection committee Australian Academy of Science 2021 Christopher Heyde Medal honorific award for excellence in mathematical sciences.

Member of selection committee Australian Academy of Science 2020 Heyde Medal honorific award for excellence in mathematical sciences.

Organiser of the Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers public lecture "The Sydney Data Science Industry" by Dr Eugene Dubossarsky at University of Technology Sydney, 21st November 2019 (70 participants).

Member of the Institute of Mathematical Statistics Committee on Special Lectures, 2019–2021.

Member of the Institute of Mathematical Statistics scientic programme committee on the 2021 Asia and Pacific Rim Meetings.

Member of Council, New South Wales branch of the Statistical Society of Australia, 2018–2021.

Member of the Institute of Mathematical Statistics Committee on Nominations, 2018–2020.

Member of the Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers Equity and Diversity Committee, 2018–present.

Member of the Australian Laureate Fellows Selection Advisory Committee, Australian Research Council, 2016.

Member of the Scientific Programme Committee for the 2014 Institute of Mathematical Statistics - Australian Statistical Conference, Sydney, July, 2014.

Member, Review Committee for the School of Mathematics and Physics, University of Queensland, September, 2013.

Member of the Institute of Mathematical Statistics Committee on Nominations, 2013–2014.

Member of Discipline Nomination Group (Mathematical Sciences) of the Australian Academy of Science, 2016-2018.

Member of Sectional Committee 1 (Mathematical Sciences) of the Australian Academy of Science for evaluation of fellowship nominations, 2013-2015.

Member of the Scientific Program Committee for the Graybill Conference, Colorado State University, June, 2010.

Member of selection committee for Australian Academy of Science 2011 honorific awards for excellence in mathematical sciences.

Member of the Scientific Program Committee for the International Workshop on Statistical Modelling, Cornell University, U.S.A., July, 2009.

Member of selection committee for Australian Academy of Science 2009 honorific awards for excellence in mathematical sciences.

Member of the Institute of Mathematical Statistics ad hoc committee on Asia-Pacific Rim Meetings, 2006–2007.

Member of the Advanced Coursework Advisory Committee of the International Centre of Excellence in Education of Mathematics, 2004–2007.

Organiser of the Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers 2019 Enabling Algorithms Theme Symposium ; 2-day symposium at University of Technology Sydney in June 2019 with over 25 participants.

Co-organiser of "Australian Mathematical Sciences Institute Symposium on Statistical Learning" (with Inge Koch); 2-day symposium at The University of New South Wales in October 2003 with over 100 participants.

Guest editor for special issue of *Advances in Bioinformatics* on "Recent Bioinformatics Advances in the Analysis of High Throughput Flow Cytometry Data" (2009).

Member of editorial board for the *Australian Mathematics Society Lecture Series* (2008–2013)

Associate Editor for *Electronic Journal of Statistics* (2007–2012)

Associate Editor for *Statistica Sinica* (2006–2010)

Associate Editor for *Australian and New Zealand Journal of Statistics* (2001–2023)

Associate Editor for *Biometrika* (1998-2003)

Associate Editor for *Journal of the American Statistical Association* (1995–2005)

Member of Statistics & Probability Screening Panel, US National Science Foundation, December 2000.

Referee for more than 50 journals.
Referee for grant proposals from several funding agencies including:

Australian Research Council
Engineering and Physical Sciences Research Council (United Kingdom)
National Science Foundation (U.S.A.)
Research Grants Council of Hong Kong
Research Council of Norway

Professional Society Memberships:

American Statistical Association
Australian Mathematical Society
Institute of Mathematical Statistics
Statistical Society of Australia

Special Invited Lectures:

1. 2024 Annual Lecture to New South Wales Branch of the Statistical Society of Australia: "Machine Learning Meets Likelihood Theory", November, 2024.

2. Distinguished Lecturer at the 4th Institute of Mathematical Statistics Asia-Pacific Rim Meeting: "Fast Approximate Inference for Arbitrarily Large Statistical Models via Message Passing" Hong Kong, June, 2016.

3. 2011 Lancaster Lecture; New South Wales Branch of the Statistical Society of Australia: "Regression in the Twenty Tens", March, 2011.

4. 2008 Knibbs Lecture; Canberra Branch of the Statistical Society of Australia: "Variational Approximation and Statistics", November, 2008.

5. Presidential Invited Address: "Semiparametric Regression and the Data Explosion" Australian Statistical Conference, Cairns, Australia, July 2004.

Keynote and Plenary Speakerships:

1. "Variational Message Passing for Elaborate Response Regression Models" Frontiers in Research and Practice in Statistics. Queensland University of Technology, Brisbane, Australia, October 2019.

2. "Frequentist Expectation Propagation". Computational and Statistical Interface to Big Data. King Abdullah University of Science and Technology, Saudi Arabia, March 2018.

3. "Fast Approximate Inference for Arbitrarily Large Statistical Models via Message Passing". Mathematical Science Symposium, The Mathematical Sciences Research Group, Auckland University of Technology, Auckland, New Zealand, November 2017.

4. "Fast Approximate Inference for Arbitrarily Large Statistical Models via Message Passing". The Second Conferenence on High Dimensional Statistical Inference in the Era of Big Data. Peking University, Beijing, China, May 2017.

5. "Semiparametric Regression for Streaming Data". Big Data Symposium. University of Ghent, Ghent, Belgium, May 2015.

6. "Real-time Semiparametric Regression". Bayes on the Beach. Caloundra, Australia; November, 2012.

7. "Real-time Semiparametric Regression". Australian Statistical Conference. Adelaide, Australia; July, 2012.

8. "Variational Bayes and Genome-Wide Association Studies". High Dimensional Statistics: Advances and Challenges. Nanyang Technological University, Singapore; May, 2011.

9. "Variational Approximations in Semiparametric Regression". New Zealand Statistical Association Conference. Wellington, New Zealand; September, 2009.

10. "Semiparametric Regression and the Computer Science Interface". Centro de Matemática Aplicada á Previsão e Decisão Económica Conference on *Advances in Semiparametric Methods and Applications*. Satellite meeting of International Statistical Institute meeting; Lisbon, Portugal; August, 2007.

11. "Penalised Spline Support Vector Classifiers: Computational Issues". International Workshop on Statistical Modelling. Sydney, Australia; July, 2005.

12. "Smoothing and Mixed Models". Euroworkshop on Nonparametric Models. Munich, Germany; November, 2001.

Short-Courses and Workshops:

1. "Variational Approximations in Statistics". Center for a Learning Health System, Harvard University, Boston, U.S.A., May 2024 (4 hours, 15 participants).

2. "Variational Approximations in Statistics". Ludwig-Maximilians-Universität München, Munich, Germany, February 2023 (4 hours, 12 participants).

3. "Semiparametric Regression with R". Sponsored by Statistical Society of Australia, Australia via teleconferencing, September–October 2020 (6 hours, 25 participants).

4. "Variational Approximations in Statistics". Ludwig-Maximilians-Universität München, Munich, Germany, June 2020 (5 hours, 30 participants).

5. "Variational Approximations in Statistics"., University of Michigan, Ann Arbor, U.S.A., February 2020 (5 hours, 20 participants).

6. "Semiparametric Regression with R". Sponsored by Statistical Society of Australia Incorporated, Sydney, June 2019 (6 hours, 18 participants).

7. "Semiparametric Regression with R". Sponsored by Statistical Society of Australia Incorporated, Canberra, September 2018 (6 hours, 25 participants).

8. "Variational Approximations in Statistics"., Dipartimento di Scienze Statistiche, Universitá di Padova, Padua, Italy, March 2018 (5 hours, 15 participants).

9. "Variational Approximations in Statistics"., University of New South Wales, Sydney, Australia, May 2017 (5 hours, 25 participants).

10. "Variational Approximations in Statistics". Statistical Society of Australia Incorporated, University of Sydney, Sydney, Australia, September 2016 (5 hours, 26 participants).

11. "Semiparametric Regression with R". Professional Development Program, Joint Statistical Meetings, Chicago, U.S.A., August 2016 (6 hours, 35 participants).

12. "Real-Time Semiparametric Regression Through Variational Approximations". University of Ghent, Ghent, Belgium, May 2015 (5 hours, 40 participants).

13. "Semiparametric Regression". Statistical Society of Australia Incorporated, University of Technology Sydney, Sydney, Australia, July 2014 (5 hours, 18 participants).

14. "Variational Approximations in Statistics". Humboldt University, Berlin, Germany, December 2013 (6 hours, 25 participants).

15. "Semiparametric Regression". Queensland University of Technology, Brisbane, Australia, November 2012 (5 hours, 22 participants).

16. "Statistical Learning and Data Analyais". Industry Doctoral Training Centre in Mathematics, Sydney, Australia, July 2012 (5 days, 15 participants).

17. "Semiparametric Regression". Indiana University and Purdue University at Indianapolis, Indianapolis, U.S.A., June 2012 (5 hours, 33 participants).

18. "Semiparametric Regression". University of Western Australia, Perth, Australia, April 2012 (5 hours, 30 participants).

19. "Semiparametric Regression". Graybill Conference. Colorado State University, Fort Collins, Colorado, U.S.A., June 2011 (5 hours, 50 participants).

20. "Semiparametric and Nonparametric Regression". Oberwolfach Seminars 2009. Mathematisches Forschungsinstitut Oberwolfach, Germany, October 2009 (5 days, 18 participants; jointly organised with R.J. Carroll and C. Crainiceanu).

21. "Semiparametric Regression". New Zealand Statistical Association Conference. Wellington, New Zealand, September 2009 (5 hours).

22. "Advanced Data Analysis" Australian Mathematical Sciences Institute/ International Centre of Excellence for Education in Mathematics Summer School, University of Wollongong, January–February 2009 (26 hours over 4 weeks).

23. "Semiparametric Regression". Commonwealth Scientific and Industrial Research Organisation: Mathematics and Information Sciences. Creswick, Victoria, Australia. November 2008 (5 hours).

24. "Bayesian inference using `BRugs`". Australian Mathematical Sciences Institute/ Statistical Society of Australia Inc. Australian Statistical Conference 2008 Satellite Workshop: Computing with R; Melbourne; July 2008 ($1\frac{1}{2}$ hours).

25. "Semiparametric Regression". Dipartimento di Scienze Statistiche, Universitá di Padova, Italy. February 2008 (6 hours).

26. "Modern Nonparametric and Semiparametric Inference". Australian Bureau of Statistics; Canberra; October 2007 (3 hours).

27. "Semiparametric Regression; Classification; Support Vector Machines". Complex Systems Beyond the Metaphor: Your Mathematical Toolset; The University of New South Wales; February 2007 (5 hours).

28. "Longitudinal Data Analysis". Australian Mathematical Sciences Institute Summer School; The University of New South Wales; February 2004 (3 hours).

29. "Semiparametric Regression". International Biometric Society, Eastern North American Region, 2004 Spring Meeting, Pittsburgh, U.S.A.; March 2004 (1 day).

30. "Semiparametric Regression". Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden; March 2002 (3 days).

31. "Smoothing Techniques and Software". International Biometric Society, Eastern North American Region, 2001 Spring Meeting, Charlotte, North Carolina, U.S.A.; March, 2001 (2 hours).

32. "An Introduction to Kernel Regression". Faculty of Economics, University of Pompeu Fabra, Barcelona, Spain, February, 1994.

Other Invited Conference Presentations:

1. "The Generalized Linear Mixed Model Leading Terms: A Stanford Story". Progress in Statistical Decision Theory 2022. Stanford University, U.S.A. (May 2022).

2. "Streamlined Variational Inference for Random Effects Models" 14th International Conference of the European Research Consortium for Informatics and Mathematics Working Group on Computational and Methodological Statistics, London U.K. (tele-meeting delivery due to COVID-19 pandemic travel restrictions) (December 2021).

3. "Streamlined Variational Inference for Random Effects Models". International Biometric Society Virtual Conference (August 2020).

4. "Streamlined Variational Inference for Random Effects Models". Data Science Down Under. The University of Newcastle, Newcastle, Australia (December, 2019).

5. "Variational Message Passing for Elaborate Response Regression Models". Joint Statistical Meetings, Denver, U.S.A. (July 2019).

6. "Frequentist Expectation Propagation", Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers symposium on Statistical Methods for the Analysis of High-Dimensional and Massive Data Sets. Queensland University of Technology, Australia (January, 2019).

7. "Fast Approximate Inference for Arbitrarily Large Statistical Models via Message Passing", Platinum Jubilee International Conference on Applications of Statistics, Department of Statistics, University of Calcutta, Kolkata, India (December 2016).

8. "Fast Approximate Inference for Arbitrarily Large Statistical Models via Message Passing", Peter Hall Memorial Conference, Department of Statistics, University of California, Davis, Davis, California, U.S.A. (October 2016).

9. "Peter Hall's Life Outside of Statistics", Professor Peter Hall Workshop, Australian National University, Canberra, Australia (September 2016).

10. "Peter Hall's Life Outside of Statistics", The 4th Institute of Mathematical Statistics Asia Pacific Rim Meetings, Hong Kong (June 2016).

11. "Real-time Semiparametric Regression". International Workshop/Conference on Bayesian Theory and Applications. Varanasi, India, January, 2013.

12. "Variational Bayesian Inference for Regression with Missing Data or Measurement Error". 2012 Centre for Mathematics Analysis Special Year on Inverse Problems. One-Day Seminar 4. Mathematical Sciences Institute, Australian National University, Australia; September, 2012.

13. "Variational Bayes and Genome-Wide Association Studies". International Biometric Society Australasian Region Conference. Kiama, New South Wales, Australia; December, 2011.

14. "Variational Inference for Regression with Missing Data". 2011 KSS International Conference on Statistics and Probability - The 40th Anniversary of the Korean Statistical Society. June, 2011, Busan, South Korea.

15. "Variational Bayes for Elaborate Distributions". Workshop of Recent Advances in Bayesian Computation. National University of Singapore, Institute for Mathematical Sciences. September, 2010, Singapore.

16. "Variational Approximations in Semiparametric Regression". Eleventh Annual Winter Workshop, University of Florida, Department of Statistics. Workshop on Semiparametric Methodology. January, 2009, Gainesville, Florida, U.S.A.

17. "Variational Approximations for Logistic Mixed Models". Ninth Iranian Statistical Conference, August, 2008, Esfahan, Iran.

18. "Parsimonious Classification via Generalised Linear Mixed Models". Taipei International Statistics Workshop, December 2006, Taipei, Taiwan.

19. "Identifying Regions of Differing Density Among Flow Cytometric Samples". Australasian Flow Cytometry Group, 29th Annual Scientic Meeting, August 2006, Sydney, Australia.

20. "Identifying Regions of Differing Density Among Flow Cytometric Samples". The Australian Statistical Conference/ New Zealand Statistical Association Conference 2006, Auckland, New Zealand.

21. "Penalised Spline Support Vector Classifiers". The Australian Statistical Conference/ New Zealand Statistical Association Conference 2006, Auckland, New Zealand.

22. "Statistical Methods for Flow Cytometric Data". 55th Session of the International Statistical Institute, 2005, Sydney, Australia.

23. "Statistical Learning for Statisticians". XXIInd International Biometric Conference, 2004, Cairns, Australia.

24. "Subject-specific Curves for Longitudinal Data: Keeping it Simple and Computable". Biennial Conference of the International Biometric Society (Australasian Region) 2003, Canberra, Australia.

25. "The Mixed Model Revolution in Smoothing". International Biometric Society Eastern North American Region, Spring 2002 Meeting, Arlington, Virginia, U.S.A.

26. "Conditional Panel Designs for Surveillance Data". International Biometric Society Eastern North American Region, Spring 2000 Meeting, Chicago, Illinois, U.S.A.

27. "Cancer Mapping on Upper Cape Cod using Generalized Additive Models with a Bivariate Component". Joint Statistical Meetings, Baltimore, Maryland, U.S.A. (August, 1999)

28. "Penalized Spline Regression". Interface '98, Minneapolis, Minnesota, U.S.A. (May, 1998)

29. "Generalized Partially Linear Single-Index Models". XXII (VI International) Conference on Mathematical Statistics, Jachranka, Poland (June, 1996).

30. "Binned Kernel Estimators: Theory and Practice". New Directions in Smoothing, Australian National University, Canberra, Australia (June, 1994).

31. "Fast Computation of Multivariate Kernel Estimators". Statcomp '93, Wollongong, Australia (September, 1993).

32. "Comparison of Smoothing Parameterizations in Multivariate Curve Estimation". Conference of Texas Statisticians, Dallas, U.S.A. (April 1991).

Other Presentations:

"Practical Sophisticaged Semiparametric Regression and Gibbsianity" Research School of Finance, Actuarial Studies and Applied Statistics, Australian National University (February, 2025).

"Precise Linear Mixed Model Asymptotics: the Crossed Case". Department of Statistics, Stanford University, U.S.A. (June, 2024); Department of Statistics, University of New South Wales (September, 2024).

"The Generalized Linear Mixed Model Leading Terms". International Biometric Society Australasian Region Conference. Waitangi, Northland, New Zealand (November, 2023); Dipartimento di Scienze Statistiche, Universitá degli studi di Padova, Italy (February, 2024); Dipartmento di Scienze Economiche, Aziendali, Matematiche e Statistiche, Universitá degli studi di Trieste, Italy (February, 2024); Department of Biostatistics, Harvard University, U.S.A. (May, 2024).

"Fast Approximate Inference for Arbitrarily Large Statistical Models via Message Passing", Harvard Data Science Initiative, Harvard University (May, 2024).

"Streamlined Variational Inference for Random Effects Models". The Economics Department, University of Technology Sydney, Sydney, Australia (April, 2023).

"The Generalized Linear Mixed Model Leading Terms". Institut für Statistik, Ludwig-Maximilians-Universität München, Munich, Germany (February, 2023).

"Streamlined Variational Inference for Random Effects Models". Department of Statistics, University of California, Davis, U.S.A. (June, 2022).

"Statistical Methodology Development and Software Dissemination". Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers Public Lecture Series (October, 2021), New South Wales Branch of the Statistical Society of Australia (November, 2021).

"Streamlined Variational Inference for Random Effects Models", Department of Mathematics and Statistics, Macquarie University, Sydney, Australia (August, 2020).

"Variational Message Passing for Elaborate Response Regression Models", Department of Biostatistics, University of Michigan, U.S.A. (February, 2020).

"Frequentist Expectation Propagation", Research School of Finance, Actuarial Studies and Applied Statistics, Australian National University (March, 2018); Department of Statistics, National University of Singapore (November, 2018); School of Mathematics and Statistics, University of Melbourne (May, 2019).

"Fast Approximate Inference for Arbitrarily Large Statistical Models via Message Passing", Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers; Retreat 2015, Glenelg, South Australia (November, 2015); Department of Statistics, University of Macquarie (April, 2016); Department of Biostatistics, Columbia University, U.S.A. (October, 2016); Department of Statistics, Columbia University, U.S.A. (October, 2016); School of Mathematical and Physical Sciences, University of Technology Sydney (October, 2016); School of Mathematical Sciences Colloquium, University of Adelaide (March, 2017); School of Mathematical and Statistics, University of New South Wales (May, 2017); Department of Statistics, University of Leeds, United Kingdom (July 2018); Department of Statistics, Stanford University, U.S.A. (December 2018).

"Semiparametric Mean Field Variational Bayes" School of Mathematics and Statistics, University of Sydney (October, 2013); School of Mathematical Sciences, University of Adelaide (November, 2014); Research School of Finance, Actuarial Studies and Applied Statistics, Australian National University (March, 2015).

"Real-time Semiparametric Regression" School of Mathematical Sciences, University of Technology Sydney, (August, 2012); Department of Statistics, University of New South Wales (October, 2013).

"Variational Sparse Signal Regression" School of Mathematics and Applied Statistics, University of Wollongong,(May, 2012), School of Mathematics and Physics, University of Queensland, (May, 2012).

"Statistician in Variationaland" Statistics in Artificial Intelligence Laboratory, University of California at Berkeley, U.S.A. (October, 2011).

"Regression in the Twenty Tens" University of Technology Sydney (September, 2010).

"The curvHDR Method for Gating Flow Cytometry Samples" Health Informatics Research Centre, University of Wollongong (August 2010).

"Variational Bayesian Inference for Regression with Missing Data" School of Mathematics and Statistics, University of Western Australia (February, 2010); School of Mathematics and Statistics, University of New South Wales (March, 2010); Department of Statistics, Macquarie University (August, 2010); Department of Mathematical Sciences, University of Technology Sydney (November, 2010).

"Explaining Variational Approximations" Commonwealth and Industrial Research Organisation Mathematical and Information Sciences, Perth (February, 2010)

"Variational Approximations in Semiparametric Regression" School of Applied Mathematics and Statistics, Queensland University of Technology (May, 2009); School of Mathematics and Statistics, University of Sydney (September, 2009); Commonwealth and Industrial Research Organisation Mathematical and Information Sciences, Sydney (October, 2009);

Institute of Mathematics, Ecole Polytechnique Fédérale de Lausanne, Switzerland (October, 2009), Goulburn 11 Meeting, Centre for Survey and Statistical Methodology, Goulburn (November, 2009).

"Variational Approximations in Statistics". Department of Mathematics and Statistics, University of Melbourne (September, 2008).

"Semiparametric Regression and Graphical Models" Goulburn 7 Meeting, Centre for Survey and Statistical Methodology, Goulburn (July, 2008); Department of Statistics, Shiraz University, Iran (August, 2008); New South Wales Department of Primary Industry Retreat, Wollongong (October, 2008).

"Ideas on Building an International Research Profile" Research conference of the Applied Statistics Education and Research Collaboration. University of Western Sydney, Campbelltown (December, 2007).

"Highest Density Difference Region Estimation with Application to Flow Cytometric Data" Goulburn 4 Meeting, Centre for Survey and Statistical Methodology, Goulburn (July, 2007).

"Semiparametric Regression and the Computer Science Interface" Australian Capital Territory Branch of the Statistical Society of Australia, Canberra (February, 2007), University of Wollongong (October, 2007), National University of Singapore, Singapore (March, 2008).

"Parsimonious Classification via Generalised Linear Mixed Models" Fred Hutchinson Cancer Research Center, Seattle, U.S.A. (November, 2006).

"Fighting Cancer with Statistical Methods" The University of New South Wales' Open Day for Talented Students in Mathematics (July, 2006).

"Feature Significance for Multivariate Density Estimation" Address to New South Wales Branch of the Statistical Society of Australia, (October, 2001); Fred Hutchinson Cancer Research Center, Seattle, U.S.A. (November, 2006).

"Penalised Spline Support Vector Classifiers: Computational Issues" Centre of Excellence for Mathematics and Statistics of Complex Systems, Melbourne (June, 2006), University of Sydney (September, 2005), University of Calcutta, India (September, 2005), Indian Statistical Institute, Calcutta, India (October, 2005).

"Statistical Methods for Flow Cytometric Data" The Centre for Immunology, Sydney, Australia (April, 2005), Burdwan University, India (September, 2005), University of Calcutta, India (September, 2005).

"Semiparametric Regression and the Data Explosion" Faculty of Science Seminar Series, The University of New South Wales (September, 2004).

"Penalised Splines and Reproducing Kernel Methods" Monash University (September, 2004), Hong Kong University of Science and Technology (December, 2004), University of Hong Kong (December, 2004).

"Statistical Learning for Statisticians" The University of New South Wales (October, 2003)

"Feature Significance in Geostatistics" The University of New South Wales (April, 2003)

"Towards General Design Bayesian Generalized Linear Mixed Models" The University of New South Wales (April, 2003), Australian National University (July, 2003), University of Sydney (September, 2003).

"Geoadditive Models" Memorial Sloan-Kettering Cancer Center, U.S.A. (April, 2001), University of Michigan, U.S.A. (November, 2000), Massachusetts Institute of Technology, U.S.A. (December, 2000).

"Smoothing and Mixed Models" Macquarie University, Australia (October, 2001) The University of New South Wales, Australia (November, 2001) University of Wisconsin, U.S.A. (December, 2001), University of Massachusetts, U.S.A. (May, 2002), Rice University, U.S.A. (October, 2002).

"Semiparametric Regression and Mixed Models" Yale University, U.S.A. (November, 1999).

"Semiparametric Regression in Environmental Health Research" University of Florida, U.S.A. (December, 1998), University of Rochester, U.S.A. (February, 1999).

"Penalized Spline Regression" University of North Carolina, U.S.A. (March, 1998).

"Smoothing: recent developments and applications" Harvard University, U.S.A. (October, 1996), Iowa State University, U.S.A. (November, 1996), University of Minnesota, U.S.A. (November, 1996). University of Technology Sydney, Australia, (May, 1997).

"Local Polynomial Variance Function Estimation" Monash University, Melbourne (November, 1995), Royal Melbourne Institute of Technology (November, 1995), Limburg University Central, Belgium (January, 1996), Catholic University of Louvain, Belgium (February, 1996), Lund Technical University, Sweden (August, 1996), University of Oslo, Norway (August, 1996), University of Illinois, U.S.A. (September, 1996), New York University, U.S.A. (October, 1996), Humboldt University, Germany (December, 1996).

"Generalized Partially Linear Single-Index Models" 1995 Institute of Mathematical Statistics Annual Meeting, Orlando, U.S.A. (August, 1995).

"Versatility of kernel smoothers" Macquarie University, Sydney (October, 1994), Australian National University (January, 1995), La Trobe University (March, 1995), Limburg University Central, Belgium (May, 1995), University of Newcastle (August, 1995).

"Accuracy of Binned Kernel Functional Approximations" 1994 Institute of Mathematical Statistics Annual Meeting, Toronto, Canada (August, 1994).

"Plug-in Bandwidth Selection for Local Least Squares Regression" University of Santiago de Compostela, Spain (January, 1994), Australian National University, Canberra (May, 1994).

"Fast Computation of Kernel Estimators": University of Newcastle (June, 1993), 1993 Institute of Mathematical Statistics Annual Meeting, San Francisco, California (August, 1993), University of Santiago de Compostela at La Coruna, Spain (January, 1994).

"Recent Developments in Local Polynomial Kernel Regression": Australian National University (October, 1992), The University of New South Wales (March, 1993).

"Multivariate Locally Weighted Least Squares Regression": University of British Columbia (May, 1992), Institute of Mathematical Statistics-Western North American Region of the International Biometric Society, Western Regional Meeting, Corvallis, Oregon (June, 1992).

"Some Topics in Kernel Smoothing": Rice University (January, 1992), University of Texas (February, 1992), Cornell University (February, 1992).

"Recent Developments in Nonparametric Curve Estimation": (series of 3 lectures) National University of Singapore.

"Assessing and Improving the Flexibility of Kernel Estimators": Rice University (September, 1990), Meeting *Trends in the Analysis of Curve Data*, Heidelberg, Germany (March, 1991), University of British Columbia (March 1991).

"Exact Mean Integrated Squared Error for Dependent Data": North Atlantic Treaty Organization Institute of Advanced Studies conference on *Nonparametric Functional Estimation*, Spetses, Greece (August, 1990)

"Transformations in Density Estimation": North Carolina State University (August 1989), Southern Methodist University (November 1989), University of Bath (January 1990), University of Glasgow (January 1990), New York University (February 1990), McGill University (March 1990), University of Heidelberg (April 1990).

"Minimisation of L_1 Distance in Density Estimation": Rice University (March 1989), Texas A&M University (April 1989), IBM Thomas J. Watson Research Center (July 1989), Rutgers University (July 1989).

Academic Visits:

1. Department of Biostatistics, University of Michigan, U.S.A.; April 2025 (2 weeks).
2. Department of Statistics, Stanford University, U.S.A.; June 2024 (1.5 weeks).
3. Department of Statistics and Data Science, Cornell University, U.S.A.; May 2024 (2 weeks).
4. Department of Biostatistics, Harvard University, U.S.A.; May 2024 (2 weeks).
5. Dipartimento di Scienze Economiche, Azeindali, Matematiche e Statistiche Universitá degli studi di Trieste, Italy: February, 2024 (4 days).
6. Dipartimento di Scienze Statistiche, Universitá degli studi di Padova, Italy: January–March, 2024 (3 months).
7. Institut für Statistik, Ludwig-Maximilians-Universität München, Munich, Germany; February, 2023 (one week).
8. Department of Biostatistics, University of Michigan, U.S.A.; February 2020 (1.5 weeks).
9. National Aeronautics and Space Administration Jet Propulsion Laboratory, California Institute of Technology, U.S.A.: August, 2019 (one week).
10. Department of Statistics, Stanford University, U.S.A.: December, 2018 (one week).
11. Department of Statistics, National University of Singapore, Singapore: November, 2018 (one week).
12. Department of Statistics, University of Leeds, UK: July–August, 2018 (two weeks).
13. Dipartimento di Scienze Statistiche, Universitá degli studi di Padova, Italy: March, 2018 (one week).
14. Computer, Electrical and Mathematical Science and Engineering Division, King Abdullah University of Science and Technology, Saudi Arabia: March, 2018 (one week).
15. Department of Statistics, Columbia University, New York, U.S.A.: October, 2016 (eight days).
16. Ladislaus von Bortkiewicz Chair of Statistics, Humboldt-Universität zu Berlin, Berlin, Germany: December, 2013 (two weeks).
17. Department of Statistics, University of Illinois at Urbana-Champaign, U.S.A.: June, 2012 (one week).
18. Department of Biostatistics, Indiana University School of Medicine, Indiana University and Purdue University at Indianapolis, U.S.A.: June, 2012 (one week).

19. Algorithms-Machines-People Laboratory, Department of Electrical Engineering and Computer Science, University of California at Berkeley, Berkeley, California, U.S.A.: October, 2011 (one week).

20. Department of Statistics, Colorado State University, Fort Collins, Colorado, U.S.A.: December, 2010 (one week).

21. Commonwealth Scientific and Industrial Research Organisation – Mathematics, Informatics and Statistics, Perth, Australia: February, 2010 (one week).

22. Institute of Mathematics, Ecole Polytechnique Fédérale de Lausanne, Switzerland: October, 2009 (one week).

23. Department of Statistics, University of Florida, Gainesville, Florida, U.S.A.: January, 2009 (one week).

24. Department of Statistics, National University of Singapore, Singapore: March, 2008 (one week).

25. Dipartimento di Scienze Statistiche, Universitá degli studi di Padova, Italy: February, 2008 (one week).

26. Fred Hutchinson Cancer Research Center, Seattle, U.S.A.: September, 2007 (one week).

27. Fred Hutchinson Cancer Research Center, Seattle, U.S.A.: November, 2006 (one week).

28. Indian Statistical Institute, Calcutta, India: October, 2005 (one week).

29. Department of Statistics, University of Calcutta, India: September, 2005 (one week).

30. Garvan Institute of Medical Research, Sydney, Australia: July–December, 2005 (one day a week for 5 months).

31. Department of Operations Research and Industrial Engineering, Cornell University, U.S.A.: July, 2001 (one week).

32. Center for Applied Statistics & Economics, Humboldt-Universität zu Berlin, Germany, December, 1996 (three weeks).

33. Department of Statistics, University of Illinois, U.S.A.: August–November, 1996 (five months).

34. Department of Mathematics and Statistics, Lund University, Sweden: July–August, 1996 (two months).

35. Institut de Statistique, Université Catholique de Louvain, Louvain-la-Neuve, Belgium: January–February, 1996 (six weeks).

36. Centre for Mathematics and Its Applications, Australian National University, Canberra, Australia: January, 1995 (one week).

37. Center for Statistics, Limburgs Universitair Centrum, Diepenbeek, Belgium: May, 1995 (three weeks).

38. Department of Operations Research and Industrial Engineering, Cornell University, U.S.A.: July, 1994 (two weeks).

39. Centre for Mathematics and Its Applications, Australian National University, Canberra, Australia: May, 1994 (one week).

40. Department of Statistics and Operations Research, University of Santiago de Compostela, Santiago, Spain: January, 1994 (two weeks).

41. Department of Statistics, University of British Columbia, Vancouver, Canada: May–June, 1992 (two months).

42. Department of Statistics, Open University, Milton Keynes, United Kingdom: May–June, 1991 (two months).
43. Department of Mathematics, National University of Singapore: April–May, 1991 (six weeks).
44. Institut für Angewandte Mathematik, Universität Heidelberg, Germany: April–May, 1990 (two months).
45. School of Computing Science, McGill University, Montreal, Canada: March, 1990 (one month).
46. Department of Operations Research and Industrial Engineering, Cornell University, U.S.A.: February, 1990 (one week).
47. Department of Statistics, University of Glasgow, United Kingdom: January, 1990 (two weeks).
48. Department of Statistics, University of Bath, United Kingdom: January, 1990 (two weeks).
49. Department of Statistics, University of North Carolina, U.S.A.: August, 1989 (one week).
50. Department of Operations Research and Industrial Engineering, Cornell University, U.S.A.: June–July, 1989 (two months).

Other Acitivities:

1. Manager, Maroubra United Girls Under 15 soccer team, 2012.
2. Manager, Maroubra United Girls Under 14 soccer team, 2011.