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PERSONAL DATA:

- U. S. Citizen
- Excellent health

EDUCATION:

- B.A., 1970, Cornell University, Mathematics
- M.A., 1973, University of Vermont, Mathematics
- Ph.D., 1977, Michigan State University, Statistics

EMPLOYMENT:

- Professor, Operations Research and Industrial Engineering, Cornell University, July 1, 1987 – present.
- Visiting Fellow, Centre for Mathematics and Its Applications, Australian National University, January 1991 – May 1991.
- Associate Professor, Department of Statistics, The University of North Carolina at Chapel Hill, July 1, 1983 – June 30, 1987.
- Assistant Professor, Department of Statistics, The University of North Carolina at Chapel Hill, July, 1977 – June, 1983.
- Instructor, Michigan State University, January, 1977 – June, 1977.

PROFESSIONAL ORGANIZATIONS:

Institute of Mathematical Statistics (fellow)
American Statistical Association (fellow)
Biometrics Society

HONORS:

1986 Wilcoxon prize for best practical applications paper in Technometrics.
Fellow of the Institute of Mathematical Statistics, elected 1986.
Fellow of the American Statistical Association, elected 1989.
Invited paper in the “Best of JCGS Session” at Interface 1999
Named “Highly cited” researcher by ISIHighlyCited.com
Andrew Schultz, Jr. Professor of Engineering, an endowed chair awarded by Cornell University in 2002

PUBLICATIONS (BOOKS):

1. Carroll, R.J., and Ruppert, D. (1988) *Transformation and Weighting in Regression*. Chapman and Hall: London and New York.
2. Carroll, R.J., Ruppert, D., and Stefanski, L. (1995) *Measurement Error in Nonlinear Models* Chapman and Hall: New York.
3. Ruppert, D., Wand, M.P., and Carroll, R.J. (2003) *Semiparametric Regression*, Cambridge University Press.
4. Ruppert, D. (2004) *Statistics and Finance: An Introduction*, Springer.
5. Carroll, R.J., Ruppert, D., Stefanski, L., and Crainiceanu, C. (2006) *Measurement Error in Nonlinear Models: A Modern Perspective, 2nd ed.* Chapman and Hall: New York.

PUBLICATIONS (PAPERS):

1. Ruppert, D., Jakab, G. J., Sylwester, D. L., and Green, G. M. (1976) Sources of variance in measurement of intrapulmonary killing of bacteria, *J. Laboratory and Clinical Medicine*, 87, (3), 544–588.
2. Ruppert, D. (1979) A new dynamic stochastic approximation procedure. *Ann. Statist.*, 7, 1179–1195.
3. Ruppert, D., and Carroll, R.J. (1980) Trimmed least squares estimation in the linear model, *J. of the Amer. Statist. Assoc.*, 75, 828–838.
4. Carroll, R. J., and Ruppert, D. (1981) On robust tests for heteroscedasticity, *Ann. Statist.*, 9, 205–209.
5. Ruppert, D. (1981) Stochastic approximation of an implicitly defined function, *Ann. Statist.*, 9, 555–556.
6. Carroll, R. J., and Ruppert, D. (1981) On prediction and the power transformation family, *Biometrika*, 68, 606–619.
7. Ruppert, D. (1982) Almost sure approximation to the Robbins-Monro and Kiefer-Wolfowitz processes with dependent noise, *Ann. Prob.*, 10, 178–187.
8. Carroll, R.J., and Ruppert, D. (1982) Robust estimation in heteroscedastic linear models. *Ann. Statist.*, 10, 429–441.
9. Carroll, R. J., and Ruppert, D. (1982) A comparison between maximum likelihood and generalized least squares in a heteroscedastic linear model, *J. of the Amer. Statist. Assoc.*, 77, 878–882.
10. Carroll, R. J., and Ruppert, D. (1982) Weak convergence of bounded influence regression estimates with applications to repeated significance testing, *J. Statist. Planning and Inference*, 1, 117–130.
11. Carroll, R. J., Ruppert, D., and Holt, R. N. (1982) Some aspects of estimation of heteroscedastic linear models, In *Statistical Decision Theory and Related Topics III*, Vol. 1 (S.S. Gupta and J.O. Berger, eds.), Academic Press: New York, pp.231–242.
12. Ruppert, D. (1983) Convergence of recursive estimators with applications to nonlinear regression, In *Mathematical Learning Models Theory and Algorithms*, pp.182–190. (U. Herkenrath, D. Kalin, and W. Vogel, eds.), Springer-Verlag: New York.

13. Carroll, R. J., and Ruppert, D. (1983) Robust estimators for random coefficient regression models, In *Contributions to Statistics: Essays in Honor of Norman Lloyd Johnson*, (P.K. Sen., ed.), North Holland, Amsterdam, pp. 81–96.
14. Ruppert, D., Reish, R.L., Deriso, R.B., and Carroll, R.J. (1984) Optimization using stochastic approximation and Monte Carlo simulation (with application to harvesting of Atlantic menhaden), *Biometrics*, 40, 535–545.
15. Carroll, R. J., and Ruppert, D. (1984) Power transformation when fitting theoretical models to data, *J. of the Amer. Statist. Assoc.*, 79, 321–328.
16. Ruppert, D. (1985) A Newton-Raphson version of the multivariate Robbins-Monro procedure, *Ann. Statist.*, 13, 236–245.
17. Frees, E.W., and Ruppert, D. (1985) Sequential nonparametric age replacement policies, *Ann. Statist.*, 13, 650–662.
18. Ruppert, D. (1985) On the bounded-influence regression estimator of Krasker and Welsch. *J. of the Amer. Statist. Assoc.*, 80, 205–208.
19. Carroll, R. J., and Ruppert, D. (1985) Transformations in regression: A robust analysis, *Technometrics*, 27, 1–12.
20. Reish, R. L., Deriso, R. B., Ruppert, D., and Carroll, R. J. (1985) An investigation of the population dynamics of Atlantic menhaden (*Brevoortia tyrannus*) *Canadian Journal of Fisheries and Aquatic Sciences*, 42, 147–157.
21. Ruppert, D., Reish, R. L., Deriso, R. B., and Carroll, R. J. (1985) A stochastic population model for managing the Atlantic menhaden fishery and assessing managerial risks, *Canadian Journal of Fisheries and Aquatic Sciences*, 42, 1371–1379.
22. Ruppert, D., and Carroll, R. J. (1985) Data transformations in regression analysis with applications to stock-recruitment relationships, In *Resource Management, Proceedings, Ashland, Oregon, 1984*, M. Mangel, ed., pp.29–48.
23. Stefanski, L., Carroll, R. J., and Ruppert, D. (1986) Optimally bounded score functions for generalized linear models, with applications to logistic regression, *Biometrika*, 73, 413–424.
24. Giltinan, D., Carroll, R. J., and Ruppert, D. (1986) Some new estimation methods for weighted regression when there are possible outliers, *Technometrics*, 28, 219–230.
25. Ruppert, D. (1987) What is kurtosis? An influence function approach, *The American Statistician*, 41, 1–5.
26. Simpson, D. G., Carroll, R. J., and Ruppert, D. (1987) M-estimation for discrete data: Asymptotic distribution theory and implications, *Ann. Statist.*, 15, 657–669.
27. Carroll, R. J., and Ruppert, D. (1987) Diagnostics and robust estimation when transforming the response and the regression model, *Technometrics*, 29, 287–299.
28. Carroll, R. J., Ruppert, D., and Street, J. O. (1988) A note on computing robust regression estimates via iteratively reweighted least squares, *The American Statistician*, 42, 152–154.

29. Englund, J-R, Holst, U., and Ruppert, D. (1988) Recursive M-estimators of location and scale for dependent sequences, *Scandinavian Statistics Journal*, 15, 147–159.
30. Carroll, R. J., Wu, C. F. J., and Ruppert, D. (1988) The effect of estimating weights in generalized least squares, *J. of the Amer. Statist. Assoc.*, 83, 1045–1054.
31. Englund, J-R, Holst, U., and Ruppert, D. (1989) Recursive estimators for stationary strong mixing processes a representation theorem and asymptotic distributions, *Stochastic Processes and their Applications*, 31, 203–222,.
32. Ruppert, D., and Aldershof, B. (1989) Transformations to symmetry and homoscedasticity, *J. of the Amer. Statist. Assoc.*, 84, 437–446.
33. Ruppert, D., Carroll, R. J., and Cressie, N. (1989) A transformation/weighting model for estimating Michaelis-Menten parameters. *Biometrics*, 45, 637–656.
34. Rudemo, M., Ruppert, D., and Streibig, J. (1989) Random effect models in nonlinear regression with applications to bioassay. *Biometrics*, 45, 349–362.
35. Ruppert, D. (1989) Fitting mathematical models to biological data: a review of recent developments. In *Mathematical Approaches to Problems in Resource Management and Epidemiology, Proceedings, Ithaca, 1987*, (C. Castillo-Chavez, S. A. Levin, and C. Shoemaker, ed.) *Lecture Notes in Biomathematics*, 81, Springer-Verlag.
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37. Frees, E.W., and Ruppert, D. (1990) Estimation following a Robbins-Monro designed experiment, *J. of the Amer. Statist. Assoc.*, 85, 1123–1129.
38. Wand, M.P., Marron, J.S., and Ruppert, D. (1991) Transformations in density estimation (with discussion), *J. of the Amer. Statist. Assoc.*, 86, 343–361.
39. Bandeen-Roche, K., and Ruppert, D. (1991) Source apportionment with one source unknown, (with discussion), Invited paper for *Chemometrics and Intelligent Laboratory Systems*, 169–184.
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41. Ruppert, D. (1991) Stochastic approximation, In *Handbook of Sequential Analysis*, (B.K. Ghosh and P. K. Sen, ed.), pp. 503–529, Marcel Dekker: New York.
42. Ruppert, D., Carroll, R. J., and Cressie, N. (1991) Response to “Generalized linear models for enzyme-kinetic data” by J. A. Nelder, *Biometrics*, 47, 1610–1615.
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44. Simpson, D.G., Ruppert, D., and Carroll, R.J. (1992) On One-step GM-estimates and stability of inferences in linear regression, *J. of the Amer. Statist. Assoc.*, 87, 439–450.
45. Stromberg, A.J., and Ruppert, D. (1992) Breakdown in nonlinear regression, *J. of the Amer. Statist. Assoc.*, 87, 991–997.

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50. Ruppert, D., and Cline, D.B.H. (1994) Bias reduction in kernel density estimation by smoothed empirical transformations, *Ann. Statist.*, 22, 185–210.
51. Marron, J.S., and Ruppert, D. (1994) Transformations to reduce boundary bias in kernel density estimation, *J. Royal Statist. Soc.*, B, 56, 653–671.
52. Ruppert, D., and Wand, M.P. (1994) Multivariate locally weighted least squares regression, *Ann. Statist.*, 22, 1346–1370.
53. Hössjer, O., and Ruppert, D. (1994) Taylor series approximations of transformation kernel density estimators, *J. of Nonparametric Statistics*, 4, 165–177.
54. Nychka, D., and Ruppert, D. (1995) Nonparametric transformations for both sides of a regression model, *J. Royal Statist. Soc.*, B, 57, 519–532.
55. Wang, N., and Ruppert, D. (1995) Nonparametric estimation of the transformation in the transform-both-sides regression model, *J. Amer. Statist. Assoc.*, 90, 522–534.
56. Hössjer, O., and Ruppert, D. (1995) Asymptotics for the transformation kernel density estimator, *Ann. Statist.*, 23, 1198–1222.
57. Ruppert, D., Sheather, S., and Wand, M. P. (1995) An effective bandwidth selector for local least squares kernel regression, *J. Amer. Statist. Assoc.*, 90, 1257–1270.
58. Wang, N., and Ruppert, D. (1996) Estimation of regression parameters in a semiparametric transformation model, *J. of Statistical Planning and Inference*, 52, 331–351.
59. Carroll, R. J., and Ruppert, D. (1996) The use and misuse of orthogonal regression estimation in linear errors-in-variables models, *The American Statistician*, 50, 1–6.
60. Ruppert, D. (1997) Local polynomial regression and its applications in environmental statistics, *Statistics for the Environment*, Volume 3, pp. 155-173, (V. Barnett and F. Turkman, editors) Chichester: John Wiley.
61. Opsomer, J.-D., and Ruppert, D. (1997) Fitting a bivariate additive model by local polynomial regression, *The Annals of Statistics*, 25, 186–212.
62. Park, B. U., Kim, W. C., Ruppert, D., Jones, M. C., Signorini, D. F., Kohn, R. (1997) Simple transformation techniques for improved nonparametric regression. *Scandinavian J. of Statist.*, 24, 145–164.
63. Ruppert, D. (1997) Empirical-bias bandwidths for local polynomial nonparametric regression and density estimation, *J. of the Amer. Statist. Assoc.*, 92, 1049–1062.

64. Ruppert, D., Wand, M.P., Holst, U., and Hössjer, O. (1997) Local polynomial variance function estimation, *Technometrics*, 39, 262–273.
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66. Carroll, R.J., Ruppert, D., and Welsh, A.H. (1998) Local estimating equations, *J. of the Amer. Statist. Assoc.*, 93, 214–227.
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68. Chen, V.C.P., Ruppert, D., and Shoemaker, C.A. (1999) Applying experimental design and regression splines to high-dimensional continuous-state stochastic dynamic programming, *Operations Research*, 47. 38–53.
69. Opsomer, J.-D., Ruppert, D., Wand, M.P., Holst, U., and Hössjer, O. (1999) Kriging with nonparametric variance function estimation. *Biometrics*, 55, 704–711.
70. Carroll, R.J., Maca, J.D., and Ruppert, D. (1999) Nonparametric kernel and regression spline estimation in the presence of measurement error. *Biometrika*, 86, 541–554.
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72. Ruppert, D., and Carroll, R.J. (2000) Spatially-adaptive penalties for spline fitting. *Australian and New Zealand Journal of Statistics*, 42, 205–253.
73. Ruppert, D., Schruben, L., and Freimer, M. (2000) Meta-modeling of a cluster tool simulator, in *Proceedings of the International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM)*, 67-77.
74. Parise, H., Ruppert, D., Ryan, L., and Wand, M. (2001) Incorporation of historical controls using semiparametric mixed models, *Applied Statistics*, 50, 31–42.
75. Coull, B., Ruppert, D., and Wand, M. (2001) Simple incorporation of interactions into additive models. *Biometrics*, 57, 539–545.
76. Berry, S. A., Carroll, R.J., and Ruppert, D. (2002) Bayesian smoothing and regression splines for measurement error problems, *J. of the Amer. Statist. Assoc.*, 97, 160–169.
77. Berry, S. A., Carroll, R. J. & Ruppert, D. (2002) Bayesian smoothing for measurement error problems. In *Total Least Squares and Errors-in-Variables Modeling: Analysis, Algorithms and Applications*, editors S. van Huffel and P. Lemmerling. Kluwer Academic Publishers, to appear.
78. Ruppert, D. (2002) Selecting the number of knots for penalized splines, *J. Computational and Graphical Statistics*, 11, 735–757.
79. Crainiceanu, C., Ruppert, D., Stedinger, J. R., and Behr, C. T. (2002) Improving MCMC mixing for a GLMM Describing pathogen concentrations in water supplies, In *Case Studies in Bayesian Statistics, Vol VI*, Gatsonis, C., et al. (editors), Lecture Notes in Statistics 167, pp. 207–222.

80. Yu, Y., and Ruppert, D. (2002) Penalized spline estimation for partially linear single index model, *J. of the Amer. Statist. Assoc.*, **97**, 1042–1054
81. Thurston, S. W., Spiegelman, D., and Ruppert, D. (2003) Equivalence of regression calibration methods in main study/external validation study designs, *J. of Statistical Planning and Inference*, **113**, 527–539.
82. Staudenmayer, J., and Ruppert, D. (2004) Local Polynomial regression and SIMEX, *Journal of the Royal Statistics Society, Series B*, **66**, 17–30.
83. Crainiceanu, C. and Ruppert, D. (2004) Likelihood ratio tests in linear mixed models with one variance component, *Journal of the Royal Statistics Society, Series B*, **66**, 165–185.
84. Crainiceanu, C., Stedinger, J., Ruppert, D., and Behr, C. (2003) Modeling the United States national distribution of waterborne pathogen concentrations with application to *Cryptosporidium parvum*, *Water Resources Research*, **39**, no. 9, 1235–1249
85. Yu, Y., and Ruppert, D. (2004) Root-n consistency of penalized spline estimator for partially linear single-index models under general euclidean space, *Statistica Sinica*, **14**, 449–456.
86. Jarrow, R., Ruppert, D., and Yu, Yan. (2004) Estimating the term structure of corporate debt with a semiparametric penalized spline model, *J. of the Amer. Statist. Assoc.*, **99**, 57–66.
87. Carroll, R., Ruppert, D., Crainiceanu, C., Tosteson, T., and Karagas, M. (2004) Nonlinear and non-parametric regression and instrumental variables, *J. of the Amer. Statist. Assoc.*, **99**, 736–750.
88. Crainiceanu, C., and Ruppert, D. (2004) Restricted likelihood ratio tests for longitudinal models, *Statistica Sinica*, **14**, 697–713.
89. Crainiceanu, C., and Ruppert, D. (2004) Likelihood ratio tests for goodness-of-fit of a nonlinear regression model, *Journal of Multivariate Analysis*, **91**(1), 35–42
90. Crainiceanu, C., Ruppert, D., Claeskens, G., and Wand, M. (2005) Exact Likelihood ratio tests for penalized splines, *Biometrika*, **92**, 91–103.
91. Briggs, W. M., and Ruppert, D. (2005) Assessing the skill of yes/no predictions, *Biometrics*, **61**, 799–807.
92. Brigg, W. M., Pocerlich, M, and Ruppert, D. (2005) Incorporating misclassification error in skill assessment, *Monthly Weather Review*, **133** (11): 3382-3392 NOV 2005
93. Crainiceanu, C., Ruppert, D., and Wand, M. (2005) Bayesian analysis for penalized spline regression using WinBUGS, *Journal of Statistical Software*, Volume 14, Issue 14. (<http://www.jstatsoft.org/>)
94. Briggs, W. M., and Ruppert, D. (2006) Assessing the skill of yes/no forecasts for Markov observations, *Monthly Weather Review*, **134**, 2601-2611.
95. Ruppert, D., Nettleton, D., and Hwang, J. T. Gene (2007). Exploring the information in P-values for the analysis and planning of multiple-test experiments, *Biometrics*, **63**, 483–495.
96. Crainiceanu, C., Ruppert, D., and Carroll, R. J. (2007) Spatially adaptive Bayesian P-splines with heteroscedastic errors, *JCGS*, **16**, 265–288.

97. Apanasovich, T., Ruppert, D., Lupton, J. R., Popovic, N., Turner, N. D., Chapkin, R. S., and Carroll, R. J. (2008) Semiparametric modeling of correlated binary data, *Biometrics*, 64, 490–500.
98. Bliznyuk, N., Ruppert, D., Shoemaker, C., Regis, R., Wild, S., and Mugunthan, P. (2008) Bayesian calibration and uncertainty analysis of computationally expensive models using optimization and radial basis function approximation, *JCGS*, 17, 270–294.
99. Li, Yingxing, and Ruppert, D. (2008) On the asymptotics of penalized splines, *Biometrika*, 95, 415–436.
100. Staudenmayer, J., Ruppert, D., and Buonaccorsi, J. (2008) Density estimation in the presence of heteroskedastic measurement error, *J. of the Amer. Statist. Assoc.*, 103, 726–736.
101. Madsen, L., Ruppert, D., and Altman, N.S. (2008) Regression with spatially misaligned data, *Environmetrics*, 19, 453–467.
102. Liang, Hua, Thurston, S., Ruppert, D., Apanosovich, T., and Hauser, R. (2008) Additive partial linear models with measurement errors, *Biometrika*, 95, 667–678.
103. Liang, H., Qin, Y., Zhang, X., and Ruppert, D. (2008) Empirical-likelihood-based inferences for generalized partially linear models, *Scandinavian Journal of Statistics*, to appear.
104. Thurston, S., Ruppert, D., and Davidson, P. (2008) Bayesian models for multiple outcomes nested in domains, *Biometrics*, to appear.

MANUSCRIPTS SUBMITTED OR IN PREPARATION:

1. Li, Yingxing, and Ruppert, D. (2008) On The Asymptotics Of Additive Penalized Splines
2. Li, Y., Apanasovich, T., and Ruppert, D. (2009) Asymptotics of design-adaptive penalized splines for general degree splines and general order penalties
3. Bliznyuk, N., Ruppert, D., and Shoemaker, C. (2009) Derivative-Free Approximation of Computationally Expensive Posterior Densities, with Application to Uncertainty Analysis for a Watershed Model, manuscript
4. Shaby, B., and Ruppert, D. (2009) Taper covariance: Bayesian estimation, asymptotics, and applications, submitted to *JASA*
5. Sharef, E., Strawderman, R., and Ruppert, D. (2008), Bayesian Adaptive B-spline Estimation in Proportional Hazards Frailty Models

COMMENTS, LETTERS, ENCYCLOPEDIA ARTICLES, and REVIEWS:

1. Comment on “Mad Query” by Fredric M. Lord, (1983) *The American Statistician*, 37, 344.
2. The Kiefer-Wolfowitz procedure, (1983) *Encyclopedia of Statistical Sciences*, Vol 4, (S. Kotz and N.L. Johnson, eds.), John Wiley: New York.
3. Comments on “The analysis of transformed data” by D. Hinkley and G. Runger, (1984) *J. of the Amer. Statist. Assoc.*, 79, 312–313, (with R.J. Carroll).

4. M-estimators, (1985) *Encyclopedia of Statistical Sciences*, Vol. 5, (S. Kotz and N.L. Johnson, eds.), John Wiley: New York.
5. Comment on “Maximum Likelihood Estimation of μ and Σ from a Multivariate Normal Distribution” by J. C. W. Rayner, (1985) *The American Statistician*, 39, 326–327, (with E. Carlstein and D. Richards).
6. Discussion of “Jackknife, bootstrap and other resampling methods in regression analysis” by C.F.J. Wu. (1986) *Ann. Statist.*, 14, 1298–1301, (with R.J. Carroll).
7. Review of “Robust Statistics” by Hampel, Ronchetti, Rousseeuw, and Stahel., (1987) *Technometrics*, 29, 240–241.
8. Discussion of “Studies in Quality Improvement: Signal to Noise Ratios, Performance Criteria and Statistical Analysis” by G.E.P. Box, (1988), *Technometrics*, 30, 30–31, (with R.J. Carroll).
9. Trimming and Winsorization, (1988) *Encyclopedia of Statistical Sciences*, vol. 9, (S. Kotz and N.L. Johnson, ed.), John Wiley: New York.
10. Robustification and robust substitutes, (1988) *Encyclopedia of Statistical Sciences*, vol. 8 (S. Kotz and N.L. Johnson, ed.), John Wiley: New York.
11. Comments on “Unmasking multivariate outliers and leverage points” by P. Rousseeuw and B. van Zomeren, (1990), *J. Amer. Statist. Assoc.*, 85, 644–646. (with D.G. Simpson).
12. Review of “Regression analysis with application” by G.B. Wetherill, (1990), *Metrika*, 37, 382–384.
13. Comments on “Regression Depth” by Rousseeuw and Hulbert, (1999) *J. of the Amer. Statist. Assoc.*, 94, 410-411. (with R. J. Carroll and L. A. Stefanski).
14. Comments on “Variable Selection and Function Estimation in Additive Nonparametric Regression Using a Data-Based Prior” by Shively, Kohn, and Wood, (1999) *J. of the Amer. Statist. Assoc.*, 94, 794–797. (with B. Brumback and M. Wand)
15. Ruppert, D. (2001) “Statistical analysis, special problems of: Transformations of data”, *International Encyclopedia of the Social & Behavioral Sciences*, 1500-1501
16. Ruppert, D. (2001) Multivariate Transformations, *Encyclopedia of Environmetrics*.
17. Ruppert, D. (2002) Discussion of “Inconsistency of resampling algorithms for high breakdown regression estimators and a new algorithm” by Douglas Hawkins and David Olive, *JASA*, 97, 148–149.
18. Ruppert, D. (2001) Review of “Nonparametric regression and Spline Smoothing” by Randall Eubank, *JASA*, 96, 1523–1524.
19. Ruppert, D. (2002) Discussion of “Spline adaptation for extended linear models ” by M. Hansen and C. Kooperberg, *Statistical Science*, 17, 37–40.
20. Ruppert, D. (2002) Review of “Probability for Statisticians” by Galen Shorack, *JASA*, 97, 6 – 6 .
21. Ruppert, D. (2004) Review of “The Elements of Statistical Learning: Data Mining, Inference, and Prediction” by Hastie, Tibshirani, and Friedman, *J. of the Amer. Statist. Assoc.*, 99, 567.
22. Ruppert, D., (2005) Discussion of “Maximization by Parts in Likelihood Inference,” by Song, Fan, and Kalbfleish, *J. of the Amer. Statist. Assoc.*, 100, 1161–1163.

23. Ruppert, D., and Carroll, R. (2007). Comments on “Does the Effect of Micronutrient Supplementation on Neonatal Survival Vary with Respect to the Percentiles of the Birth Weight Distribution?” by Francesca Dominici, Scott L. Zeger, Giovanni Parmigiani, Joanne Katz, and Parul Christian, *Bayesian Analysis*, 2(1), 37–42.
24. Carroll, R., and Ruppert, D. (2006). Comment on “*Conditional Growth Charts*” by Ying Wei and Xuming He, *The Annals of Statistics*, 34, 2098–2103.
25. Ruppert, D., (2007). Comments on “Model-assisted Estimation of Forest Resources with Generalized Additive Models” by J. D. Opsomer, F. J. Breidt, G. G. Moisen, and G. Kauermann, *J. of the Amer. Statist. Assoc.*, 102, 409–411.

UNPUBLISHED MANUSCRIPTS:

1. Efficient estimators from a slowly convergent Robbins-Monro process. OR & IE Technical Report # 781.
2. Semiparametric estimation of transformations to symmetry in regression (with M. Nakamura).
3. Transformation kernel density estimators using stochastic bandwidths (with Ola Hössjer).
4. A simple roughness penalty approach to regression spline estimation (with R.J. Carroll)
5. The sandwich (robust covariance matrix) estimator. (with R.J. Carroll, S. Wang, D.G. Simpson, and A. Stromberg)
6. Motion picture analysis of smoothing, (1999) (with J. S. Marron and E. Smith, and G. Conley)
7. Crainiceanu, C., Ruppert, D., and Vogelsang, T., (2002). Probability of a zero MLE or REML estimate of a variance component in a linear mixed model.
8. Crainiceanu, C., Ruppert, D., and Coresh, J. (2006) Cox models with nonlinear effect of covariates measured with error: A case study of primary Chronic Kidney Disease.
9. Fan, K-Y., Shoemaker, C., and Ruppert, D. (2003) Penalized regression dynamic programming (PR-DP) for high-dimensional continuous-state control problems.

RECENT INVITED LECTURES AND COLLOQUIA:

Calibrating Environmental Engineering Models

- Sandia CSRF Workshop on Large-Scale Inverse Problems and Quantification of Uncertainty, September 2007
- JSM 2008, August 3, 2008
- Nov 4, 2006, Keynote Address at Harvard University Workshop on Environmental Statistics

Penalized Splines and Financial Market Data

- Mar 24, 2006, Keynote Address at Conference on “Statistical Modeling in Finance,” Fox School of Business, Temple University,

Exploring the Information in P-values

- Nov 4, 2005, Department of Mathematics and Statistics, University of Massachusetts
- Sept 21, 2005, Department of Statistical Science, Cornell University
- Aug 16, 2005, Conference on “Nonparametric Models for Complex Biological Data,” University of California, Davis

Measurement Error in Health Studies (six lecture short course)

- Nov 28–30, 2005: Department of Biostatistics, Johns Hopkins University
- Mar 4–6, 2005: Department of Biostatistics, Harvard University

Semiparametric Modeling, Penalized Splines, and Mixed Models

- Apr 23, 2003, Department of Biostatistics, Johns Hopkins University.
- Sept 24, 2003, Department of Statistical Science, Cornell University.
- Jan 20, 2004, National Center for Atmospheric Research (NCAR), Boulder, CO
- Jan 21, 2004, Department of Statistics, Colorado State University
- Jan 13, 2005, Dartmouth College
- Apr 18, 2005, Department of Statistics, Iowa State University
- Apr 19, 2005, Department of Statistics, Michigan State University

Estimating Term Structure with Penalized Splines

- Jan 27, 2004, OR&IE, Cornell University
- Jan 2004, OR&FE, Princeton University

Nonparametric Random Effects Models And Likelihood Ratio Tests

- Frontiers of Statistical Research: A Celebration of the 40th Anniversary of the Department of Statistics at TAMU, Oct 11, 2002
- Conference on “Emerging Issues in Longitudinal Data Analysis,” South Hadley, MA, July 28, 2002

SHORT COURSES:

- Six-hour courses on *Measurement Error in Nonlinear Models*, Continuing Education at Joint Statistical Meetings, Dallas, Texas, August 9, 1998 (with R.J. Carroll and L.A. Stefanski)
- Three-day short course on *Measurement Error Models*. The Twenty-fourth Annual Summer Institute of Applied Statistics, Brigham Young University, June 16–18, 1999.
- One day short course on *Measurement Error Models*. ENAR Spring Meetings, Chicago, Illinois, March 19, 2000.
- One day short course on *Semiparametric Regression*. ENAR Spring Meetings, Pittsburgh, PA, March 28, 2004.

RESEARCH GRANTS AND CONTRACTS:

- Jan 1, 2009–Dec 31, 2011: 1R01NS060910-01A2, “Statistical Methods for Multilevel Multivariate Functional Studies,” National Institute of Neurological Disorders and Stroke, Ciprian Crainiceanu, Johns Hopkins, PI. B. Caffo, N. Punjabi, D. Ruppert, co-investigators. Total award: \$365,061 for 2009, \$351,000 for 2010, \$350,936 for 2011.
- July 1, 2008–June 30, 2011: NSF DMS 0805975, “Asymptotic Theory of Penalized Splines and Calibration of Computationally Expensive Models,” Total award: \$179,768. One-month of summer support in 2008, 2009, 2010.
- 2004–2007: NSF DMS 0434390, “Integrated Statistical and Optimization Analysis for Computationally Expensive Models of Complex Environmental Systems,” (Joint with Christine Shoemaker) Total award: \$626,354.
- 2000–2003: Co PI, EPA “Statistical Monitoring of Waterborne Pathogen Concentrations” (with Jery Stedinger, Civil and Environmental Engineering). \$305,494 over three years. One month summer support for each of three years for David Ruppert.
- 1998–2001: Principle Investigator, NSF Grant, “Nonparametric Regression,” DMS-9804058, Total award: \$85,971. 1 month per summer support.
- 1998–1999: Faculty investigator on SRC grant, “Methods for Modeling Stochastic Processes in Semiconductor Manufacturing,” 97-FJ-490, Lee Schruben, PI. Total award: \$400,000. 0.5 months per summer support to Ruppert.
- 1998–1999: Faculty investigator on NSF grant, “Methods for Modeling Stochastic Processes in Semiconductor Manufacturing,” DMI-9713549, Lee Schruben, PI. Total award: \$799,999. 1 month per summer to Ruppert.
- 1996–1998: Principle Investigator, NSF Grant, “Nonparametric Estimation in Engineering,” DMS-9626762, Total award: \$50,000.
- 1993–1996: Principle Investigator, NSF Grant DMS-9306196, “Problems in Statistical Modeling,” Total award: \$100,000.
- 1991: Principal Investigator, NSF Grant, “U.S.-Australia cooperative research: topics in semiparametric modeling.”
- 1990–1993: Principal Investigator, NSF Grant, “Problems in statistical modeling.”
- 1988–90: Principal Investigator, NSF Grant, “Transformation Techniques in Regression.”
- 1981-87: Co-Principal Investigator, NSF Grant, “Problems in Mathematical Statistics.”
- 1980–82: Principal Investigator, National Marine Fisheries Contract, “Biological Simulation Model for the Atlantic Menhaden.”
- 1978–80: Associate Investigator, NSF Grant, “Problems in Mathematical Statistics.”

OTHER GRANTS:

- 1991: Principal Investigator, GE grant, “Faculty and course development in continuous improvement/total quality management.”

OTHER SCHOLARLY ACTIVITIES:

- 2001 – present: Member, NIH SMEM-5 (change to BMRD) Study Section (meets three times per year to evaluate grant proposals)
- Jan. 1999 – present: Associate Editor, *Biometrics*
- Dec. 1998: Member, NSF Screening Panel.
- Jan. 1994 – July, 1999: Editor, *IMS Lecture Notes—Monographs Series*.
- Jan. 1994 – Jun. 1995: Member, Joint AMS-IMS-SIAM Committee on Summer Research Conferences (chair: July 1994–June 1995)
- Jun. 1983 – Dec. 1987: Associate Editor, *The American Statistician*.
- Feb. 1988 – Dec. 1996: Associate Editor, *J. Amer. Statist. Assoc.*
- May 1989 - Dec. 1991: Associate Editor, *The Annals of Statistics*.
- Organized ARO-sponsored workshop “Function estimation and statistical applications,” Ithaca, New York, June 1990.

PH.D. STUDENTS:

1. Patrick Crockett, (1983), Nonparametric density and moment estimation in random coefficients regression models. Now at Constella Group.
2. Edward Frees, (1983), Construction of sequential age replacement policies via stochastic approximation. Now at School of Business and Department of Statistics, Now at University of Wisconsin.
3. Leonard A. Stefanski, (1983), Influence and measurement error in logistic regression. Now at Department of Statistics, North Carolina State University.
4. David M. Giltinan, (1983), Bounded influence estimation in heteroscedastic linear model. Retired from Genetech.
5. Douglas G. Simpson, (1985), Aspects of robust estimation for discrete data. Now at Department of Statistics, University of Illinois.
6. Arnold Stromberg (1989), Robust efficient estimation of nonlinear regression parameters. Now at Department of Statistics, University of Kentucky.
7. Miguel Nakamura (1989), Transformations to symmetry in the transform-both-sides model. Now at CIMAT, Guanajuato, Mexico.
8. Mary Dowling (1990), Parameter estimation in nonlinear regression with covariate measurement error.
9. Karen Bandeen Roche (1990), A receptor-based model for the statistical analysis of air pollution data: source apportionment with one source unknown. Now at Department of Biostatistics, Johns Hopkins.
10. Naisyin Wang (1992), Semiparametric transform-both-sides regression models. Now at Department of Statistics, Texas A&M.

11. Victoria Chen (1993), Applying experimental design and regression splines to high-dimensional continuous-state stochastic dynamic programming. Now at UT-Arlington
12. Jean-Didier Opsomer (1995). Optimal bandwidth selection for fitting an additive model by local polynomial regression. Now at Department of Statistics, Iowa State.
13. Gang Zhou (1995). Parameter design using heteroscedastic regression methodology and optimal designs. Now Riskmetrics.
14. Andrew Schulman (1998). A Comparison of Local Bandwidth Selectors for Local Polynomial Regression. Now at EPA.
15. John Staudenmayer (2000). Nonparametric regression with measurement error. Now at UMass-Amherst.
16. Yan Yu (2001). Penalized spline estimation for partially linear single index models. Now at University of Cincinnati.
17. Trevor Park (2003). A Penalized Likelihood Approach to Principal Component Stabilization, Now at Department of Statistics, University of Florida.
18. Ciprian Crainiceanu, (2003). Nonparametric Likelihood Ratio Testing, Now at Department of Biostatistics, Johns Hopkins University.
19. Matt Briggs (2004). Assessing the Value of Yes/No Forecasts, Now at Central Michigan University.
20. Lisa Madsen (2004). Regression with Spatially Misaligned Data, Department of Statistics, Now at Oregon State University.
21. Minbok Kim (2008). Consistent Variable Selection via Adaptive Diagonal Ridge Estimator in Regression Models, First position: Samsung.
22. Nikolai Bliznouik (2008). Posterior Approximation by Interpolation for Bayesian inference in Computationally Expensive Statistical Models, first position: postdoc, Biostatistics, Harvard School of Public Health.
23. Emmanuel Sharef (2008). Nonparametric Frailty Models for the Analysis of Clustered Survival Data, first position: Morgan-Stanley.
24. Ben Shaby (2009). Tools for Hard Bayesian Computations, first position: postdoc at SAMSI
25. Yingxing Li, current student

July 8, 2009