

CURRICULUM VITAE

JEFFREY D. HART

ADDRESS

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DATE AND PLACE OF BIRTH

January 19, 1955
Tulsa, Oklahoma

EDUCATION

- 1981 Ph.D., Statistics, Southern Methodist University, Dallas, Texas.
Dissertation Title: "On ARMA Density Estimation and Complex Valued S-Arrays"
Advisor: Henry L. Gray
- 1979 M.S., Statistics, Southern Methodist University, Dallas, Texas
- 1977 B.S., Mathematics, Southern Methodist University, Dallas, Texas (Summa Cum Laude)
- 1975 A.S., Mathematics, Paris Junior College, Paris, Texas

ACADEMIC APPOINTMENTS (NON-VISITING)

- 2007-17 Adjunct Professor, Department of Biostatistics, M.D. Anderson Cancer Center, Houston, Texas
- 1994- Professor, Department of Statistics, Texas A&M University, College Station, Texas
- 1988-94 Associate Professor, Department of Statistics, Texas A&M University, College Station, Texas
- 1982-88 Assistant Professor, Department of Statistics, Texas A&M University, College Station, Texas
- 1981-82 Assistant Professor, Department of Mathematics, University of Arkansas, Fayetteville, Arkansas
- 1977-81 Teaching and Research Assistant, Department of Statistics, Southern Methodist University, Dallas, Texas

ACADEMIC APPOINTMENTS (VISITING)

- 2017 Visiting Professor, Department of Statistics and Operations Research, Universidad de Vigo, Vigo, Spain (May 14– May 28)
- 1997-98 Visiting Professor, Department of Statistics, Limburgs Universitair Centrum, Diepenbeek, Belgium.
- 1989 Research Fellow, Statistics Research Section, School of Mathematical Sciences, Australian National University, Canberra, Australia (May 24–August 4)
- 1989 Visiting Adjunct Associate Professor, Department of Statistics, North Carolina State University, Raleigh, North Carolina (January 15–May 15)
- 1988 Visiting Associate Professor, Institut für Wirtschaftstheorie II, Universität Bonn, Bonn, West Germany (June 1–August 31)

PROFESSIONAL SOCIETY MEMBERSHIPS

American Statistical Association
Institute of Mathematical Statistics

HONORS AND AWARDS

Fellow of the Institute of Mathematical Statistics, 1994

College of Science Distinguished Achievement Award in Teaching (awarded by Texas A&M University Association of Former Students), 1995

Fellow of the American Statistical Association, 2001

Winner of Don Owen Award, 2007

TEACHING

Course	Description
STAT 211	Introductory undergraduate course (calculus based)
STAT 212	Sequel to STAT 211
STAT 303	Introductory undergraduate course (not calculus based)
STAT 414	Undergraduate mathematical statistics
STAT 608	Least squares and regression analysis
STAT 610	Introduction to distribution theory
STAT 611	Introduction to classical theory of inference
STAT 613	Advanced theory of statistical inference
STAT 614	Advanced theory of statistics
STAT 615	Stochastic processes
STAT 626	Methods in time series analysis
STAT 627	Nonparametric curve estimation
STAT 632	Statistical decision theory
STAT 638	Introduction to applied Bayesian methods
STAT 651	Graduate service course (non-calculus)
STAT 652	Graduate service course (non-calculus)

PH.D. DISSERTATIONS DIRECTED

1986	David Holiday, "On Nonparametric Regression in a Correlated-Errors Model."
1988	Eileen King, "A Test for the Equality of Two Regression Curves Based on Kernel Smoothers." (Co-chairman with T. E. Wehrly)
1992	M. Ramachandran, "Testing for Goodness of Fit Using Nonparametric Techniques."
1994	Jaehee Kim, "Test for Change in a Mean Function When the Data Are Dependent."
1996	GeungHee Lee, "A Statistical Wavelet Approach to Model Selection and Data-Driven Neyman Smooth Tests."
1996	Seongbaek Yi, "On One-Sided Cross-Validation in Nonparametric Regression."
1997	Andy Liaw, "An Application of Fourier Series Smoothing to a Diagnostic Test of Heteroscedasticity." (Co-chairman with J. A. Calvin)
1998	Chien-Feng Chen, "Bootstrapping the Order Selection Test." (Co-chairman with S. Wang)
1999	Cherng-Luen Lee, "Robustness Properties of Time Series Cross-Validation."
2002	Stanley Pounds, "Cluster Analysis of AFLP Data."
2003	Chun Gun Park, "MCMC Methods for Wavelet Representations in Single Index Models." (Co-chairman with M. Vannucci)
2003	Caixia Zhao, "One-sided Cross-validation for a Model Motivated by Variable Star Data."
2004	Suriani Pokta, "Bayesian Model Selection Using Exact and Approximated Posterior Probabilities with Applications to Star Data."
2004	Mickey Dunlap, "Using the Bootstrap to Analyze Variable Stars Data."
2005	Juhee Song, "Bootstrapping in a High Dimensional but Very Low Sample Size Problem."
2005	Yi Qian, "Topics in Multiple Hypotheses Testing."

- 2009 Nathaniel Litton, “Deconvolution in Random Effects Models Via Normal Mixtures.”
- 2009 Olga Savchuk, “Choosing a Kernel for Cross-Validation.” (Co-chairman with Simon Sheather)
- 2011 Qi Wang, “Frequentist-Bayes Goodness-of-fit Tests.”
- 2011 Ying Sun, “Inference and Visualization of Periodic Sequences.” (Co-chairman with Marc Genton)
- 2013 Beverly Gaucher, “Factor Analysis for Skewed Data and Skew-Normal Maximum Likelihood Factor Analysis.” (Co-chairman with Thomas E. Wehrly)
- 2017 Hyuneui Lee, “Goodness-of-fit Test for a Large Number of Small Data Sets.”
- 2017 Matthew Malloure, “Goodness-of-fit Testing Using Cross-Validation Bayes Factors.”
- 2018 Shyamalendu Sinha, “Estimation of Location and Scale Parameters and their Joint Density in a Random Effects Model.”

CURRENT PH.D. STUDENTS

- 2019 Brittany Alexander
- 2018 Naveed Merchant

MAJOR RESEARCH INTERESTS

Nonparametric curve estimation; Time series analysis; Bootstrap methods; Lack-of-fit tests; Bayesian methods.

RESEARCH

Publications in Refereed Journals

- [1] Hart, J.D. (1984). On the marginal distribution of a first order autoregressive process. *Statistics and Probability Letters* **2** 105-109.
- [2] Hart, J.D. (1984). Efficiency of a kernel density estimator under an autoregressive dependence model. *Journal of the American Statistical Association* **79** 110-117.
- [3] Hart, J.D. (1984). On the modal resolution of kernel density estimators. *Statistics and Probability Letters* **2** 363-369.
- [4] Hart, J.D. (1985). On the choice of a truncation point in Fourier series density estimation. *Journal of Statistical Computation and Simulation* **21** 95-116.
- [5] Hart, J.D. (1985). Data-based choice of the smoothing parameter for a kernel density estimator. *Australian Journal of Statistics* **27** 44-52.
- [6] Hart, J.D. and Gray, H.L. (1985). The ARMA method of approximating probability density functions. *Journal of Statistical Planning and Inference* **12** 137-152.
- [7] Hart, J.D. (1985). A counterexample to a claim concerning the convolution of multimodal distributions. *Communications in Statistics* **A14** 2943-2945.
- [8] Hart, J.D. and Wehrly, T.E. (1986). Kernel regression estimation using repeated measurements data. *Journal of the American Statistical Association* **81** 1080-1088.
- [9] Hart, J.D. (1988). An ARMA type probability density estimator. *Annals of Statistics* **16** 842-855.
- [10] Hart, J.D. (1989). Differencing as an approximate de-trending device. *Stochastic Processes and their Applications* **31** 251-259.
- [11] Hall, P. and Hart, J.D. (1990). Bootstrap test for difference between means in nonparametric regression. *Journal of the American Statistical Association* **85** 1039-1049.
- [12] Hall, P. and Hart, J.D. (1990). Convergence rates in density estimation for data from infinite-order moving average processes. *Probability Theory and Related Fields* **87** 253-274.
- [13] Hall, P. and Hart, J.D. (1990). Nonparametric regression with long-range dependence. *Stochastic Processes and their Applications* **36** 339-351.

- [14] Eubank, R.L., Hart, J.D. and Speckman, P. (1990). Trigonometric series regression estimators with an application to partially linear models. *Journal of Multivariate Analysis* **32** 70–83.
- [15] Hart, J.D. and Vieu, P. (1990). Data-driven bandwidth choice for density estimation based on dependent data. *Annals of Statistics* **18** 873-890.
- [16] King, E., Hart, J.D. and Wehrly, T.E. (1991). Testing the equality of two regression curves using linear smoothers. *Statistics and Probability Letters* **12** 239-247.
- [17] Cline, D.B.H. and Hart, J.D. (1991). Kernel estimation of densities with discontinuities or discontinuous derivatives. *Statistics* **22** 69-84.
- [18] Hart, J.D. (1991). Kernel regression estimation with time series errors. *Journal of the Royal Statistical Society, Series B* **53** 173-187.
- [19] Hart, J.D. (1991). Discussion of “Choosing a Kernel Regression Estimator,” by C.K. Chu and J.S. Marron, *Statistical Science* **6** 425-427.
- [20] Härdle, W., Hart, J.D., Marron, J.S. and Tsybakov, A.B. (1992). Bandwidth choice for average derivative estimation. *Journal of the American Statistical Association* **87** 218-226.
- [21] Härdle, W. and Hart, J.D. (1992). A bootstrap test for positive definiteness of income effect matrices. *Econometric Theory* **8** 276-290.
- [22] Hart, J.D. (1992). Discussion of “Empirical Functionals and Efficient Smoothing Parameter Selection,” by P. Hall and I. Johnstone, *Journal of the Royal Statistical Society, Series B* **54** 518.
- [23] Hart, J.D. and Wehrly, T.E. (1992). Kernel regression estimation when the boundary region is large, with an application to testing the adequacy of polynomial models. *Journal of the American Statistical Association* **87** 1018-1024.
- [24] Eubank, R. L. and Hart, J.D. (1992). Testing goodness-of-fit in regression via order selection criteria. *Annals of Statistics* **20** 1412-1425.
- [25] Hart, J.D. and Wehrly, T.E. (1993). Consistency of cross-validation when the data are curves. *Stochastic Processes and their Applications* **45** 351-361.
- [26] Eubank, R.L. and Hart, J.D. (1993). Commonality of cusum, von Neumann and smoothing-based goodness-of-fit tests. *Biometrika* **80** 89-98.
- [27] Hall, P. and Hart, J.D. (1993). On the probability of error when using a general Akaike-type criterion to estimate autoregressive order. *Journal of Time Series Analysis* **14** 347-368.
- [28] Eubank, R.L., Hart, J.D. and LaRiccia, V.N. (1993). Testing goodness of fit via nonparametric function estimation techniques. *Communications in Statistics* **22** 3327-3354.
- [29] Hart, J.D. (1994). Automated kernel smoothing of dependent data by using time series cross-validation. *Journal of the Royal Statistical Society, Series B* **56** 529-542.
- [30] Lombard, F. and Hart, J.D. (1994). “The Analysis of Change-point Data With Dependent Errors,” in *Change-point Problems*, eds. E. Carlstein, H.-G. Müller, and D. Siegmund, Institute of Mathematical Statistics Lecture Notes - Monograph Series **23** 194-209.
- [31] Eubank, R.L., Hart, J.D., Simpson, D. and Stefanski, L. (1995). Testing for additivity in nonparametric regression. *Annals of Statistics* **23** 1896-1920.
- [32] Hart, J.D. (1996). Some automated methods of smoothing time-dependent data. *Journal of Nonparametric Statistics* **6** 115-142.
- [33] Kuchibhatla, M. and Hart, J.D. (1996). Smoothing-based lack-of-fit tests: variations on a theme. *Journal of Nonparametric Statistics* **7** 1-22.
- [34] Kim, J. and Hart, J.D. (1998). Tests for change in a mean function when the data are dependent. *Journal of Time Series Analysis* **19** 399-424.
- [35] Lee, G.-H. and Hart, J.D. (1998). An L_2 error test with order selection and thresholding. *Statistics and Probability Letters* **39** 61-72.
- [36] Hart, J.D. and Yi, S. (1998). One-sided cross-validation. *Journal of the American Statistical Association* **93** 620-631.

- [37] Aerts, M., Claeskens, G. and Hart, J.D. (1999). Testing the fit of a parametric function. *Journal of the American Statistical Association* **94** 869-879.
- [38] Hart, J.D. (1999). Testing the fit of functions in fully specified likelihood models. *Proceedings of the 14th International Workshop on Statistical Modeling* 19-29.
- [39] Aerts, M., Claeskens, G. and Hart, J.D. (2000). Testing lack of fit in multiple regression. *Biometrika* **87** 405-424.
- [40] Lee, G.-H. and Hart, J.D. (2000). Model selection criteria with data-dependent penalty, with applications to data-driven Neyman smooth tests. *Journal of Nonparametric Statistics* **12** 683-707.
- [41] Hart, J.D. (2001). Discussion of "Parametric modeling of growth curve data: an overview," by D.L. Zimmerman and V. Núñez-Antón, *Test* **10** 45-51.
- [42] Chen, C.-F., Hart, J.D. and Wang, S. (2001). Bootstrapping the order selection test. *Journal of Nonparametric Statistics* **13** 851-882.
- [43] Klimov, D., Hart, J.D. and Simar, L. (2002). Automatic smoothing and estimation in single index Poisson regression. *Journal of Nonparametric Statistics* **14** 307-323.
- [44] Cao, R., Hart, J.D. and Saavedra, Á. (2003). Nonparametric maximum likelihood estimators for AR and MA time series. *Journal of Statistical Computation and Simulation* **73** 347-360.
- [45] Aerts, M., Claeskens, G. and Hart, J.D. (2004). Bayesian-motivated tests of function fit and their asymptotic frequentist properties. *Annals of Statistics* **32** 2580-2615.
- [46] Hart, J.D. and Lee, C.-L. (2005). Robustness of one-sided cross-validation to autocorrelation. *Journal of Multivariate Analysis* **92** 77-96.
- [47] Park, C.G., Vannucci, M. and Hart, J.D. (2005). Bayesian methods for wavelet series in single-index models. *Journal of Computational and Graphical Statistics* **14** 770-794.
- [48] Jensen, J.L., Hart, J.D. and Willis, B.J. (2005). Evaluating proportions of undetected geological events in the case of erroneous identifications. *Mathematical Geology* **38** 103-108.
- [49] Racine, J., Hart, J.D. and Li, Q. (2006). Testing the significance of categorical predictor variables in nonparametric regression models. *Econometric Reviews* **25** 523-544.
- [50] Ma, Y. and Hart, J.D. (2007). Constrained local likelihood estimators for semiparametric skew-normal distributions. *Biometrika* **94** 119-134.
- [51] Pokta, S. and Hart, J.D. (2007). Approximating posterior probabilities in a linear model with possibly noninvertible moving average errors. *Journal of Multivariate Analysis* **99** 25-49.
- [52] Hart, J.D., Koen, C. and Lombard, F. (2007). An analysis of pulsation periods of long-period variable stars. *Journal of the Royal Statistical Society, Series C* **56** 587-606.
- [53] Hart, J.D. (2008). "Smoothing-inspired Lack-of-fit Tests Based on Ranks," in *Beyond Parametrics in Interdisciplinary Research: Festschrift in Honor of Professor Pranab K. Sen*, eds. N. Balakrishnan, E.A. Peña and M. Silvapulle, Institute of Mathematical Statistics Collections **1** 138-155.
- [54] Hart, J.D. (2009). Frequentist-Bayes lack-of-fit tests based on Laplace approximations. *Journal of Statistical Theory and Practice* **3** 681-704.
- [55] Claeskens, G. and Hart, J.D. (2009). Goodness-of-fit tests in mixed models (with discussion). *TEST* **18** 213-239.
- [56] Hart, J.D. (2009). Discussion of "Parametric versus nonparametrics: two alternative methodologies," by E.L. Lehmann, *Journal of Nonparametric Statistics* **21** 411-413.
- [57] Park, B.-J., Lord, D. and Hart, J.D. (2010). Bias properties of Bayesian statistics in finite mixture of negative binomial regression models in crash data analysis. *Accident Analysis and Prevention* **42** 741-749.
- [58] Savchuk, O.Y., Hart, J.D. and Sheather, S.J. (2010). Indirect cross-validation for density estimation. *Journal of the American Statistical Association* **105** 415-423.
- [59] Savchuk, O.Y., Hart, J.D. and Sheather, S.J. (2010). An empirical study of indirect cross-validation. *Nonparametric Statistics and Mixture Models – A Festschrift in Honor of Thomas P Hettmansperger* (D.R. Hunter, D.S.P. Richards and J.L. Rosenberger, eds.), World Scientific, pp. 288-308.

- [60] Song, J. and Hart, J.D. (2010). Bootstrapping in a high-dimensional but very low sample size problem. *Journal of Statistical Computation and Simulation* **80** 825-840.
- [61] Ma, Y., Hart, J.D., Janicki, R. and Carroll, R.J. (2011). Local and omnibus goodness-of-fit tests in classical measurement error models. *Journal of the Royal Statistical Society, Series B* **73** 81-98.
- [62] Kim, J. and Hart, J.D. (2011). A change-point estimator using local Fourier series. *Journal of Nonparametric Statistics* **23** 83-98.
- [63] Hart, J.D. and Cañette, I. (2011). Nonparametric estimation of distributions in random effects models. *Journal of Computational and Graphical Statistics* **20** 461-478.
- [64] Ma, Y., Hart, J.D. and Carroll, R.J. (2011). Density estimation in several populations with uncertain population membership. *Journal of the American Statistical Association* **106** 1180-1192.
- [65] Sun, Y., Hart, J.D. and Genton, M. (2012). Nonparametric inference for periodic sequences. *Technometrics* **54** 83-96.
- [66] Savchuk, O., Hart, J.D. and Sheather, S.J. (2013). One-sided cross-validation for nonsmooth regression functions. *Journal of Nonparametric Statistics* **25** 889-904.
- [67] Sun, Y., Hart, J.D. and Genton, M. (2013). Improved nonparametric inference for multiple correlated periodic sequences. *Stat* **2** 197-210.
- [68] Zhan, D. and Hart, J.D. (2014). Testing equality of a large number of densities. *Biometrika* **101** 449-464.
- [69] Gong, X., Gonzalez, R., McVay, D.A. and Hart, J.D. (2014). Bayesian probabilistic decline curve analysis reliably quantifies uncertainty in shale well production forecasts. *SPE Journal* **19** 1047-1057.
- [70] Hart, J.D., Choi, T. and Yi, S. (2015). Frequentist nonparametric goodness-of-fit tests via marginal likelihood ratios. *Computational Statistics and Data Analysis*. **96** 120-132.
- [71] Hart, J.D. (2016). A nonparametric test of stationarity for independent data. *Statistics and Probability Letters*. **108** 40-44.
- [72] Hart, J.D. and Choi, T. (2017). Nonparametric goodness-of-fit via cross-validation Bayes factors. *Bayesian Analysis*. **12** 653-677.
- [73] Hart, J.D. (2017). Use of BayesSim and smoothing to enhance simulation studies. *Open Journal of Statistics*. **7** 153-172.
- [74] Savchuk, O.Y. and Hart, J.D. (2017). Fully robust one-sided cross-validation for regression functions. *Computational Statistics*. **32** 1003-1025.
- [75] Zhang, Y., Hart, J.D. and Needleman, A. (2018). Identification of plastic properties from conical indentation using a Bayesian-type statistical approach. *Journal of Applied Mechanics*. **86** 011002-011002-9. doi:10.1115/1.4041352
- [76] Cousido-Rocha, M., de Uña-Álvarez, J. and Hart, J.D. (2018). Testing equality of a large number of densities under mixing conditions. *Test*. <https://doi.org/10.1007/s11749-018-00625-3>
- [77] Hart, J.D. and Malloure, M. (2019). Prior-free Bayes factors based on data splitting. *International Statistical Review*. **87** 419-442.
- [78] Cousido-Rocha, M., de Uña-Álvarez, J. and Hart, J.D. (2019). A two-sample test for the equality of marginal distributions for high-dimensional data. *Journal of Multivariate Analysis*. **174** Article 104537.
- [79] Sinha, S. and Hart, J.D. (2019). Estimating the mean and variance of a high-dimensional normal distribution using a mixture prior. *Computational Statistics and Data Analysis*. **138** 201-221.
- [80] Ures, D., Hart, J.D., Francisco Fernández, M. and Cao, R. (2021). Bagging cross-validated bandwidths with application to big data. *Biometrika*. **108** 981-988.
- [81] Merchant, N. and Hart, J.D. (2022). A Bayesian motivated two-sample test based on kernel density estimates. *Entropy*. **24** 1071 <https://doi.org/10.3390/e24081071>

Papers Submitted for Publication or in Preparation

- [1] Merchant, N., Choi, T. and Hart, J.D. (2020). Use of cross-validation Bayes factors to test equality of two densities. Submitted to *Bayesian Analysis*.
- [2] Sinha, S. and Hart, J.D. (2019). Semiparametric location-scale density estimation in random effects models. Under revision.

Books

- [1] Hart, J.D. (1997). *Nonparametric Smoothing and Lack-of-Fit Tests*. Springer-Verlag, New York.

Invited Presentations

- 1985 “Smoothing Nonparametric Estimates of Probability Densities and Regression Functions,” Department of Mathematical Sciences, Rice University, January 28.
- 1987 “Kernel Regression with Time Series Errors,” IMS Regional Meeting, Dallas, Texas, March 25.
- 1987 “Nonparametric Regression with Correlated Data: Have Automatic Smoothers Met Their Match?” Department of Statistics, Rice University, October 20.
- 1988 “The Effect of Dependent Data on Automatic Smoothing Methods,” IMS Central Regional Meeting, Madison, Wisconsin, May 16.
- 1988 “Cross-Validating Kernel Estimates When the Observed Data are Serially Correlated,” Institut für Angewandte Mathematik, Universität Heidelberg, Heidelberg, West Germany, July.
- 1988 “Trend Estimation in Time Series Via Kernel Methodology,” Institut für Wirtschaftstheorie, Universität Bonn, Bonn, West Germany, July.
- 1989 “Kernel Smoothing When the Observations are Correlated,” Department of Statistics, North Carolina State University, February.
- 1989 “Using Kernel Smoothers to Test the Equality of Two Regression Curves,” Department of Biostatistics, University of North Carolina, March.
- 1989 “Using Kernel Smoothers to Test the Equality of Two Regression Curves,” Department of Statistics, University of South Carolina, March.
- 1989 “Nonparametric Function Estimation When the Data Are Dependent,” Statistics Research Section, School of Mathematical Sciences, Australian National University, July. (A series of three lectures)
- 1989 “Nonparametric Function Estimation With Dependent Data,” Australian Graduate School of Management, University of New South Wales, Kensington, New South Wales, Australia, July.
- 1990 “Using Kernel Smoothers to Test the Equality of Two Regression Curves,” Department of Statistics, Southern Methodist University, October.
- 1990 “Using Kernel Smoothers to Test the Equality of Two Regression Curves,” Department of Mathematical Sciences, University of Texas at El Paso, November.
- 1991 “Testing Goodness of Fit in Regression Via Order Selection Criteria,” Department of Statistics, University of Minnesota, May.
- 1992 “Automatic Smoothing of Dependent Data: Is It Feasible?” ASA National Meeting, Boston, MA, August.
- 1993 “Automated Kernel Smoothing of Dependent Data Using Time Series Cross-Validation,” Department of Statistics and Operations Research, New York University, March.
- 1993 “Automated Kernel Smoothing of Dependent Data Using Time Series Cross-Validation,” International Meeting on Statistical Function Estimation and Smoothing Techniques, Academia Sinica, Taipei, Taiwan, March.
- 1993 Invited discussant in session entitled “Multivariate Curve and Density Estimation,” 25th Symposium on the Interface, San Diego, CA, April.
- 1994 “A Neyman Smooth Test With Data-Driven Smoothing Parameter,” Conference Celebrating 100th Anniversary of Jerzy Neyman’s Birth, Warsaw, Poland, November.
- 1995 “One-Sided Cross-Validation,” Department of Statistics, Rice University, March.

- 1995 “One-Sided Cross-Validation,” Department of Statistical Science, Southern Methodist University, October.
- 1996 “Kernel Smoothing: An Overview and a New Look at Cross-Validation,” SRCOS Meeting, DeGray, Arkansas, June.
- 1996 “Smoothing-Based Lack-of-Fit Tests,” First NIU Symposium on Statistical Science, DeKalb, Illinois, September.
- 1997 “One-Sided Cross-Validation,” *The Art of Nonparametric Statistics* Workshop, Louvain-la-Neuve, Belgium, February.
- 1997 “Smoothing-Based Lack-of-Fit Tests,” Department of Statistics, Limburgs University, Diepenbeek, Belgium, February.
- 1997 “Testing Lack of Fit Via Smoothing Methods,” Department of Applied Mathematics and Computer Science, Universiteit Gent, Ghent, Belgium, December.
- 1997 “Testing Model Fit Via Data-Driven Model Selection,” Institut de Statistique, Université catholique de Louvain, Louvain-la-Neuve, Belgium, December.
- 1998 “Testing Model Fit Via Data-Driven Model Selection,” Mathematisches Institut, Universität Giessen, Giessen, Germany, January.
- 1998 “Testing Model Fit Via Data-Driven Model Selection,” General Assembly of the Belgian Statistical Society, Diepenbeek, Belgium, January.
- 1998 “Smoothing-Based Lack-of-Fit Tests,” Departamento de Estatística e Investigación Operativa, Universidade de Santiago de Compostela, Santiago de Compostela, Spain, February.
- 1998 “Time Series Cross-Validation,” Departamento de Matemáticas, Universidade da Coruña, La Coruña, Spain, February.
- 1998 “Smoothing-Based Lack-of-Fit Tests,” Departamento de Econometría y Estadística, Universidad del País Vasco, Bilbao, Spain, February.
- 1998 “Testing the Hypothesis That a Function Lies in a Parametric Family,” International Symposium celebrating 10 years of Biostatistics, Limburgs Universitair Centrum, Diepenbeek, Belgium, May.
- 1999 “Smoothing Autocorrelated Data,” Department of Statistics, Limburgs University, Diepenbeek, Belgium, May.
- 1999 “Testing the Fit of Functions in Fully Specified Likelihood Models,” 14th International Workshop on Statistical Modelling, Graz, Austria, July.
- 1999 “Smoothing Autocorrelated Data,” Institute of Statistics, Ludwig-Maximilians University, Munich, Germany, July.
- 2001 “Testing the Fit of a Mixture Model Using Nonparametric Density Estimation,” Department of Statistics, Limburgs University, Diepenbeek, Belgium, June.
- 2001 “Testing the Fit of a Mixture Model Using Nonparametric Density Estimation,” Institute for Statistics and Econometrics, Humboldt University, Berlin, July.
- 2001 “Smoothing-Based Tests of Function Fit,” Joint Statistical Meetings, Atlanta, Georgia, August.
- 2002 “Model Evaluation Issues Arising in an Analysis of Variable Stars Data,” Euroworkshop on Statistical Modelling, Bernried, Germany, November.
- 2004 “State of the Art in Nonparametric Lack-of-fit Tests,” ENAR Spring Meeting, Pittsburgh, Pennsylvania, March.
- 2004 “Semiparametric Bayesian and Frequentist Tests of Trend for a Large Collection of Variable Stars,” The Second Erich L. Lehmann Symposium, Rice University, May.
- 2004 “An Analysis of Pulsation Periods of Long-period Variable Stars,” Department of Statistics, Oregon State University, October.
- 2004 “An Analysis of Pulsation Periods of Long-period Variable Stars,” Department of Statistics, Texas A&M University, November.

- 2005 “Using Posterior Probabilities in Frequentist Fashion to Test for Lack of Fit,” American Statistical Association Workshop, Texas A&M University, January.
- 2005 “An Analysis of Pulsation Periods of Long-period Variable Stars,” Department of Statistics, Rice University, January.
- 2005 “An Analysis of Pulsation Periods of Long-period Variable Stars,” Center for Statistics, Universiteit Hasselt, Belgium, March.
- 2005 “Using Bayesian Statistics to Test for Lack of Fit in Frequentist Fashion,” Meeting of International Biometric Society, Eastern North American Region, Austin, TX, March.
- 2005 “An Analysis of Pulsation Periods of Long-period Variable Stars,” Department of Statistics, Kansas State University, November.
- 2006 “Nonparametric Estimation of an Error Distribution in a Large- p , Small- n Setting,” SRCOS/ASA Summer Research Conference, Kerrville, TX, June.
- 2006 “Nonparametric Estimation of an Error Distribution in a Large- p , Small- n Setting,” Department of Mathematical Sciences, University of Texas at Dallas, November.
- 2007 “An After-Dinner Taste of My Research for Nonstatisticians,” Don Owen Award Ceremony, March.
- 2007 “Frequentist-Bayes Lack-of-Fit Tests Based on a Laplace Approximation,” Joint Statistical Meetings, Salt Lake City, August.
- 2007 “Nonparametric Estimation of Distributions in a Large- p , Small- n Setting,” Michigan State University, September.
- 2007 “Nonparametric Estimation of Distributions in Large- p , Small- n Settings,” Current and Future Trends in Nonparametrics Conference, University of South Carolina, October.
- 2009 “Estimating Distributions in Random Effects Models: Identifiability and Efficiency,” IAMCS Brown Bag Lunch Seminar on Inverse Problems, Texas A&M University, February.
- 2009 “Nonparametric Estimation of Distributions in a Random Effects Model” (poster), IAMCS Spring Symposium, Texas A&M University, May.
- 2009 Invited discussant in session entitled “Parzen’s Legacy on Modern Nonparametric Statistics,” Joint Statistical Meetings, Washington D.C., August.
- 2010 Invited discussant in session entitled “Model Diagnostics,” Joint Statistical Meetings, Vancouver, British Columbia, August.
- 2012 “An Analysis of Pulsation Periods of Long-Period Variable Stars,” IMS Asia Pacific Rim Meeting, Tsukuba, Japan, July.
- 2012 “Testing Equality of a Large Number of Densities,” Department of Statistics, Seoul National University, Seoul, South Korea, July.
- 2012 “Testing Equality of a Large Number of Densities,” Department of Statistics, Texas A&M University, November.
- 2013 “Testing Equality of a Large Number of Densities,” Department of Applied Mathematics and Statistics, Colorado School of Mines, November.
- 2014 “Testing Equality of a Large Number of Densities,” Second International Society of Nonparametric Statistics Conference, Spain, June.
- 2015 “Nonparametric Goodness of Fit Via Cross-validation Bayes Factors,” 8th International Conference of the ERCIM WG on Computational and Methodological Statistics, University of London, December.
- 2016 “A Nonparametric Goodness-of-fit Test for Random Effects Models Via Cross-validation Bayes Factors,” Latent Variables Conference, University of South Carolina, October.
- 2017 “Prior-free Bayes Factors Based on Data Splitting,” Department of Statistics and Operations Research, Universidad de Vigo, Vigo, Spain, May.
- 2017 “Prior-free Bayes Factors Based on Data Splitting,” Department of Statistics, Texas A&M University, September.

- 2018 “Prior-free Bayes Factors Based on Data Splitting,” Department of Management Science and Statistics, University of Texas at San Antonio, November.
- 2019 “Cross-validation Bayes Factors for the Nonparametric Two-sample Test,” 12th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, UK, December.

Research Grants

- RF 85-677 “Nonparametric Estimation of Functions Based Upon Correlated Observations”
Office of Naval Research
Contract period: 9/1/85 to 8/31/88
Amount: \$114,506
PI’s: Jeffrey D. Hart and Thomas E. Wehrly
- RF 88-18 Renewal of previous ONR contract
Contract period: 10/1/88 to 9/30/90
Amount: \$97,492
PI’s: Jeffrey D. Hart and Thomas E. Wehrly
- RF 89-364 “Mathematical Sciences Research Equipment, 1989”
National Science Foundation
Contract period 7/15/89 to 12/31/90
Amount: \$52,000
PI’s: R. J. Carroll, R. L. Eubank, J. D. Hart, H. J. Newton
- RF 99-0158 “Model Selection and Tests of Model Fit”
National Science Foundation
Contract period 8/15/99 to 7/31/02
Amount: \$80,000
PI: Jeffrey D. Hart
- RF 0600390RB1 “Cluster-Based Bootstrapping in Multiple Hypotheses Testing”
National Science Foundation
Contract period 6/1/06 to 5/31/09
Amount: \$97,000
PI: Jeffrey D. Hart
- Innovation Award “Minimum Distance Estimation of Distributions in a Large- p , Small- n Statistical Paradigm”
KAUST
Contract period 12/19/08 to 5/31/09
Amount: \$15,110
PI: Jeffrey D. Hart
- RF 1100278 “New Methodology for Estimating Random Effects and for Statistical Simulation Studies”
National Science Foundation
Contract period 8/1/11 to 7/31/14
Amount: \$170,665
PI: Jeffrey D. Hart

SERVICE TO THE PROFESSION

Referee for

American Statistician, Annals of Statistics, Australian Journal of Statistics, Biometrics, Biometrika, Canadian Journal of Statistics, Communications in Statistics, Computational Statistics and Data Analysis, International Statistical Review, Journal of the American Statistical Association, Journal of Business and Economic Statistics, Journal of Multivariate Analysis, Journal of Nonparametric Statistics, Journal of the Royal Statistical Society, Journal of Statistical Planning and Inference, Metron, Probability Theory and Related Fields, Sankhya,

Scandinavian Journal of Statistics, Statistics, Statistics and Probability Letters, Statistics in Medicine, and Stochastic Processes and Their Applications.

Reviewer of research grant proposals for NSF and other agencies.

- 1984 President of Southeast Texas Chapter of ASA.
- 1991-93 Associate Editor of *Communications in Statistics*.
- 1992-93 Associate Editor of *Probability Theory and Related Fields*.
- 1997-2000 Associate Editor of *Test*.
- 1996-2002 Associate Editor of *Journal of the American Statistical Association*.
- 2002 Organized session for International Conference on Current Advances and Trends in Nonparametric Statistics, July 15-19, Crete, Greece.
- 2004 Chair-Elect, ASA Section on Nonparametrics.
- 2004-2005 Co-organizer of American Statistical Association Workshop entitled "Nonparametric Statistics: Frontier."
- 2005 Chair, ASA Section on Nonparametrics.
- 2008-2009 Judge, ASA Section on Nonparametrics Student Paper Competition.
- 2008-2011 Associate Editor of *Journal of the American Statistical Association*.
- 2012 Member of ASA committee to determine 2012 Noether Senior and Young Scholars.
- 2012 Member of NSF Panel to review grant proposals.
- 2013 Member of ASA committee to determine 2013 Noether Senior and Young Scholars.
- 2014 Organized session for Second Conference of the International Society for NonParametric Statistics in Cádiz, Spain.
- 2015 Organized session for Third Conference of the International Society for NonParametric Statistics in Avignon, France, June 2016.
- 2019 Organized session for 12th International Conference of the ERCIM WG on Computational and Methodological Statistics in London, UK, December 2019.

SERVICE TO THE DEPARTMENT AND UNIVERSITY

Consultant to graduate students and faculty members in other departments.

- 1983-84 Organized and participated in the Department of Statistics contribution to Career Day at Texas A&M University.
- 1984, 1986 Judge for Brazos Valley Regional Science Fair.
- 1984-86 Member of the Service Curriculum Committee, Department of Statistics.
- 1986-87 Chairman of the Service Curriculum Committee, Department of Statistics.
- 1986-87 Organizer of departmental preliminary and qualifying examinations.
- 1987-88 Member of the Graduate Committee, Department of Statistics.
- 1987-88 Member of the Search Committee, Department of Statistics.
- 1988 Chairman of the Search Committee, Department of Statistics. (Fall semester)
- 1989-90 Chairman of the Graduate Program Committee.
- 1990-92 Member of Graduate Program Committee, Department of Statistics.
- 1990-92 Organizer of the Hartley Memorial Lectures.
- 1991 Organized departmental seminar series on smoothing methods.
- 1992-94 Organizer of the Hartley Memorial Lectures.
- 1992-95 Member of Graduate Program Committee, Department of Statistics.
- 1992-93 Member and Secretary of Faculty Advisory Committee, College of Science.
- 1993-95 Department of Statistics representative on the College of Science Diversity Committee.

- 1994-96 Organizer of the Hartley Memorial Lectures.
- 1995-96 Chair of Promotion and Tenure Committee, Department of Statistics.
- 1995-97 Member of Tenure and Promotion Advisory Committee, College of Science.
- 1995-2000 Member of Awards Committee, Department of Statistics.
- 1999 Chair of Graduate Student Development Self-Study Group, Department of Statistics.
- 1999-2000 Member of Promotion and Tenure Committee, Department of Statistics.
- 1999-2000 Chair of Hiring Committee, Department of Statistics.
- 2000-01 Chair of Promotion and Tenure Committee, Department of Statistics.
- 2001 Chair of Department Head Evaluation Committee, Department of Statistics.
- 2001-03 Member of Hiring Committee, Department of Statistics.
- 2001-02 Member of 40th Anniversary Conference Planning Committee, Department of Statistics.
- 2002-03 Chair of Promotion and Tenure Committee, Department of Statistics.
- 2003-04 Chair of Hiring Committee, Department of Statistics.
- 2004 Member of Department Head Search Committee, Department of Statistics.
- 2004-05 Member of Awards Committee, Department of Statistics.
- 2004-05 Chair of Promotion and Tenure Committee, Department of Statistics.
- 2004-07 Member of Tenure and Promotion Advisory Committee, College of Science.
- 2006-08 Chair of Promotion and Tenure Committee, Department of Statistics.
- 2007-08 Member of Department of Statistics Grant Opportunities Committee.
- 2011 Chair of committee to determine winner of Raymond J. Carroll Young Investigator Award, Department of Statistics.
- 2013 Member of Department Head Search Committee, Department of Statistics.
- 2013 Chair of committee to determine winner of Raymond J. Carroll Young Investigator Award, Department of Statistics.
- 2012-2014 Member of Promotion and Tenure Committee, Department of Statistics.
- 2014-2015 Chair of Hiring Committee, Department of Statistics.
- 2015-2016 Member of Graduate Program Committee, Department of Statistics.
- 2017-2019 Member of Graduate Curriculum Committee, Department of Statistics.
- 2017-2019 Member of Promotion and Tenure Committee, Department of Statistics.
- 2019 Supervised team of undergraduate students who won TAMIDS Data Science Competition.
- 2019- Chair of Promotion and Tenure Committee, Department of Statistics.
- 2020 Member of Promotion and Tenure Committee, Department of Statistics.