ROBERT JOHN TIBSHIRANI

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Born: July 10, 1956, Niagara Falls, Ontario, Canada

Citizenship: U.S. Citizen

Education

04.1979	University of Waterloo, Canada, Bachelor's in Statistics and Computer Science
05.1980	University of Toronto, Canada, Master's in Statistics
12.1984	Stanford University, California, Ph.D. in Statistics (Bradley Efron, adviser)

Academic Experience

07.1985–06.1989	Assistant Professor, Department of Statistics, University of Toronto
07.1985–06.1989	Assistant Professor (NSERC University Research Fellow), Department of Preventive Medicine and Biostatistics and Department of Statistics, University of Toronto
07.1989–07.1994	Associate Professor, Department of Statistics, University of Toronto
07.1989–06.1994	Associate Professor (NSERC University Research Fellow), Department of Preventive Medicine and Biostatistics and Department of Statistics, University of Toronto
07.1994–08.1998	Professor, Department of Public Health Sciences and Department of Statistics, University of Toronto
08.1998–10.2015	Professor, Department of Health Research and Policy and Department of Statistics, Stanford
10.2015–	Professor, Department of Biomedical Data Science and Department of Statistics, Stanford

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Professional Activities

1982–1983	President, Graduate Students Association, Department of Statistics, Stanford University
1985–	Referee/reviewer for *Annals of Statistics*, *Journal of the American Statistical Association*, *Technometrics*, *Biometrics*, *International Statistical Institute Review*, *Biometrika*, *Canadian Journal of Statistics*, *Annals of the Institute of Mathematical Statistics*, *Brazilian Journal of Statistics*, *The American Statistician*, the National Science Foundation and the Office of Naval Research
1988–1991	Associate Editor, *Canadian Journal of Statistics*
1986–1995	Associate Editor, Theory and Methods, *Journal of the American Statistical Association*
1989–1993	Member, Statistical Sciences Grant Selection Committee, Natural Sciences and Engineering Research Council of Canada
1991–1994	Council Member, Institute of Mathematical Statistics
1994	Series Editor, Computing and Graphics Monographs, Chapman & Hall
1994	Annual Meeting Program Chair, Statistical Society of Canada
1995–	Chair, Committee on Computerization, Institute of Mathematical Statistics
1995–	Associate Editor, *Statistical Science*
1995–1996	Program Chair, Statistical Computing, American Statistical Association
1995–1997	Associate Editor, *Canadian Journal of Statistics*
1998–	Associate Editor, *Annals of Statistics*
1999	Member, Screening Panel, National Science Foundation
2001–2004	Associate Editor, *PLoS Biology*
2006–	Associate Editor, *Annals of Applied Statistics*

Memberships

Fellow, American Statistical Association
Fellow, Royal Society of Canada
Fellow, Royal Society
Fellow, Institute of Mathematical Statistics
Member, National Academy of Sciences

Honors and Awards

1974	Ontario Senior Math Competition (ranked 14th in Canada)
1974–1978	Descartes Fellowship, University of Waterloo
1977	Putnam Math Competition (ranked 62nd in North America)
1980	Open Fellowship, University of Toronto
1981	Winner, Institute of Mathematical Statistics Data Analysis Competition
1984	Winner, Best Presentation: "Bootstrap Confidence Intervals", WNAR Student Paper Competition, Logan, Utah
1981–1984	Post-graduate Scholarship, Natural Sciences and Engineering Research Council of Canada
1985	Post-doctoral Fellowship, Ontario Ministry of Health
1985–1990	University Research Fellowship, Natural Sciences and Engineering Research Council of Canada
1994	J. Guggenheim Foundation Fellowship
1996	Committee of Presidents of Statistical Societies (COPSS) Award for Contributions to Statistics Before the Age of 40
1997	E.W.R. Steacie Memorial Fellowship, Natural Sciences and Engineering Research Council of Canada
2000	CRM-SSC Prize in Statistics, Statistical Society of Canada
2001	Fellow, Royal Society of Canada
2006	Alumni Achievement Award, University of Waterloo
2012	Member, National Academy of Sciences
2012	Gold Medal, Statistical Society of Canada
2018	Doctor Honoris Causa, University of Waterloo
2019	Fellow, Royal Society
2021	ISI Founders of Statistics Prize, International Statistical Institute

Lectures and Short Courses

1985	American Statistical Association Annual Meeting short course on the bootstrap with Bradley Efron, Las Vegas, Nevada
1985	American Statistical Association Annual Meeting, Las Vegas, Nevada
1986	Statistics and Data Analysis Group, AT&T Bell Labs
1986	SAS Users Group Meeting, Reno, Nevada
1986	New Jersey Chapter of the ASA, Morristown, New Jersey
1986	Department of Economics, University of Western Ontario
1986	Statistical Society of Canada Annual Meeting, Banff, Alberta
1986	American Statistical Association Annual Meeting, Chicago (2 seminars)
1986	First Toronto-Waterloo Joint Seminar, Department of Statistics, University of Waterloo
1986	Department of Statistics, Stanford University
1987	Statistics and Data Analysis Group, AT&T Bell Labs (2 seminars)
1987	Department of Statistics, University of Toronto
1987	Department of Mathematics, York University
1987	American Statistical Association Annual Meeting, San Francisco
1988	Department of Mathematics, McMaster University
1988	Department of Statistics, Yale University
1988	Department of Statistics, Harvard University
1988	Institute of Mathematical Statistics Regional Meeting, Boston
1988	Department of Mathematics, Statistics, and Computer Science, Dalhousie University
1989	Department of Statistics, University of Rochester

1989 Statistics Day, Ottawa, Ontario
1989 Statistical Society of Canada Annual Meeting short course on generalized additive models, Ottawa, Ontario
1989 Statistics Group, AT&T Bell Labs
1990 Bootstrap Workshop, Wayne State University
1990 Department of Statistics, University of Waterloo
1990 Department of Biostatistics, Johns Hopkins University
1990 American Statistical Association Annual Meeting short course on the generalized additive models with Trevor Hastie, Anaheim, California
1990 American Statistical Association Annual Meeting, Anaheim, California
1991 Statistics Day, Ottawa, Ontario
1991 AT&T Bell Labs
1991 Department of Statistics, University of Toronto
1992 American Statistical Association Annual Meeting
1992 Statistical Society of Canada Annual Meeting
1992 Department of Statistics, Stanford University
1993 Royal Statistical Society Discussion Paper, London
1993 Department of Statistics, Oxford
1993 Departments of Statistics and Biostatistics, Glasgow
1993 Department of Statistics, Bath
1993 NATO Workshop on Neural Nets and Statistics, Les Arcs France
1993 Department of Statistics, York University
1994 Statistics Group, AT&T Bell Labs
1994 Department of Biostatistics, University of Michigan
1994 Department of Statistics, University of Chicago
1994 Department of Biostatistics, University of South Florida
1994 Invited Lecturer, Neural Networks Conference, Snowbird, Utah
1995 Stanford/Berkeley Joint Symposium
1995 Ricoh Corporation
1995 Statistics-Computer Science Seminar, UC Berkeley
1995 Neural Nets Workshop, Vail Colorado
1995 Department of Statistics, Georgia Tech
1995 AT&T Lecturer, American Statistical Association Annual Meeting, Atlanta
1995 OCTRF/PMH Seminar Series
1996 Workshop on Modern Regulation and Classification (two seminars), Cleveland Clinic
1996 Department of Statistics, Case Western Reserve University
1996 Neural Networks Workshop (two seminars), University of Montreal
1996 Workshop on Modern Regulation and Classification (two seminars), Palo Alto, California
1997 Workshop on Modern Regulation and Classification (two seminars), Honolulu, Hawaii
1997 Workshop on Modern Regulation and Classification (two seminars), New York City
1997 Data Mining Workshop, University of Washington
1997 Statistics Seminar, University of Waterloo
1997 AT&T Labs Inaugural Statistics Seminar
1998 Workshop on Modern Regulation and Classification (two seminars), Washington DC
1998 Statistics Seminar, University of Western Ontario
1998 Statistics Seminar, University of Toronto
1999 Keynote Address, S-PLUS Users Conference
1999 Invited Special Lecture, WNAR Conference
2000 Plenary Lecture, National Academy of Sciences Chairs Meeting
2000 Invited Lecture, IPAM Genetics Conference, UCLA
2006 Invited Lecturer, Dempster Symposium
2007 IMS Medallion Lecturer, Atlanta
05.2012 Craig Memorial Lecturer, University of Iowa
06.2012 Greenberg Memorial Lecturer, University of North Carolina
04.2013 Invited Lecture, Department of Statistics, Cornell University

06.2013 ISBS Keynote Address, Cadiz, Spain
06.2013 Invited Lecture, Department of Statistics, University of Madrid
09.2014 Invited Lecture, Department of Statistics, Carnegie Mellon University
04.2014 Pims Lecture, University of British Columbia
10.2014 Invited Lecture, Department of Statistics, University of Pennsylvania
10.2014 Distinguished Lecture, ML Department, Carnegie Mellon University
11.2014 Invited Lecture, Statistics Group, Princeton University
07.2015 Invited Lecture, Joint Statistical Meetings, Seattle
07.2017 Introductory Lecture on Statistical Learning, Joint Statistical Meetings, Baltimore
08.2017 DeMets Lecture, University of Wisconsin
06.2018 Honorary Degrees Lecture, University of Waterloo

Books

1. Hastie and Tibshirani (1990). *Generalized Additive Models*. Chapman and Hall.
2. Efron and Tibshirani (1993). *An Introduction to the Bootstrap*. Chapman and Hall.
3. Hastie, Tibshirani, and Friedman (2001). *The Elements of Statistical Learning: Data Mining, Inference and Prediction*. Springer-Verlag. (2009) Second edition.
4. James, Witten, Hastie, and Tibshirani (2013). *An Introduction to Statistical Learning*. Springer-Verlag.
5. Hastie, Tibshirani, and Wainwright (2015). *Statistical Learning with Sparsity: The Lasso and Generalizations*. Chapman and Hall.

Refereed Discussions

1. Hastie, T. and Tibshirani, R. (1985). Discussion of "Projection pursuit" by Huber. *Ann Stat* 13(2):502-508.
2. Tibshirani, R. (1986). Discussion of "Jacknife, bootstrap and other resampling methods in regression analysis" by Wu. *Ann Stat* 14(4):1335-1339.
3. DiCiccio, T. and Tibshirani, R. (1987). Discussion of "Better bootstrap confidence intervals" by Efron. *J Amer Stat Assoc* 82, 171-200.
4. Tibshirani, R. (1988). Correction: Discussion of "Jackknife, bootstrap and other resampling methods in regression analysis" by Wu. *Ann Stat* 16(1):479.
5. Hastie, T. and Tibshirani, R. (1987). Discussion of "What is projection pursuit?" by Jones and Sibson. *J Roy Statist Soc Ser B* 150(1):27-28.
6. Tibshirani, R. (1988). Discussion of "Bootstrap methods" by Hinkley and "A review of bootstrap confidence intervals" by Diciccio and Romano. *J Roy Statist Soc Ser B* 50(3):362-363.
7. Hastie, T. and Tibshirani, R. (1988). Comment on "Monotone regression splines in action" by Ramsay. *Statist Sci* 3(4):450-456.
8. Risch, H. and Tibshirani, R. (1988). Comment on "Polychotomous logistic regression methods for matched case-control studies with multiple case or control groups" by Liang and Stewart. *Amer J Epidem* 128(2):446-448.
9. Hastie, T. and Tibshirani, R. (1991). Discussion of "The PI method for estimating multivariate functions from noisy data" by Breiman. *Technometrics* 33(2):155.
10. Buja, A., Duffy, D., Hastie, T. and Tibshirani, R. (1991). Discussion of "Multivariate adaptive regression splines" by Friedman. *Ann Stat* 19(1):93-99.
11. Tibshirani, R. (1994). Comment on "Neural networks: A review from a statistical perspective" by Cheng and Titterington. *Statist Sci* 9(1):48-49.

12. Hastie, T. and Tibshirani, R. (1994). Discussion of "Neural networks and related methods for classification" by Ripley. *J Roy Statist Soc B* 56:447-448.

13. Hastie, T. and Tibshirani, R. (1995). Discussion of "Regression using fractional polynomials" by Royston and Altman. *J Roy Statist Soc B* 57, 234.

14. Hastie, T. and Tibshirani, R. (1995). Discussion of "Wavelet shrinkage: Asymptopia?" by Kerkyacharian, Picard, Donoho and Johnstone. *J Roy Statist Soc Ser B* 57(2):355.

15. Knight, K., Kustra, R. and Tibshirani, R. (1998). Comment on "Bayesian CART model search" by Chipman, George and McCulloch. *J Amer Statist Assoc* 93(443):950-954.

16. Hastie, T., Tibshirani, R. and Friedman, J. (2003). Note on "Comparison of model selection for regression" by Cherkassky and Ma. *Neural Comput* 15(7):1477-1480. PMID: 12816562

17. Naylor, C.D., Sinclair, M. and Tibshirani, R. (2004). Discussion of "Flawed analysis, implausible results–move on" by Hill. *Can Med Assoc J* 170(3):357-358.

18. Getz, G., Höfling, H., Mesirov, J.P., Golub, T.R., Meyerson, M., Tibshirani, R. and Lander, E.S. (2007). Comment on "The consensus coding sequences of human breast and colorectal cancers" by Sjöblom, Jones, Wood, et al. *Science* 317(5844):1500. PMID: 17872428

19. Friedman, J., Hastie, T., and Tibshirani, R. (2020). Discussion of "Prediction, Estimation, and Attribution" by Bradley Efron. *Int. Statist. Rev.* 88: S73-S74. DOI: 10.1111/insr.12414

Publications: Methodology

1. Llewellyn-Thomas, H., Sutherland, H., Tibshirani, R.J., Ciampi, A. and Till, J. (1981). Health Utility Assessment Using von Neumann and Morgenstern's Standard Gamble. Fundamental Assumptions (abstract). Med Decis Making 1(4):432.
2. Llewellyn-Thomas, H., Sutherland, H., Tibshirani, R.J., Ciampi, A., Till, J., and Harwood, A.R. (1981). Utilities Assigned to Voice States. Abstracts of the 147th Annual Meeting of the American Association for the Advancement of Science, p.70.
3. Tibshirani, R. (1982). A Plain Man's Guide to the Proportional Hazards Model. Clin Investigat Med 5(1):63-68.
4. Llewellyn-Thomas, H., Sutherland, H., Tibshirani, R.J., Ciampi, A. and Till, J. (1982). Measurement of Patient's Values in Medicine. Med Decis Making 2(3):449-462.
5. Tibshirani, R. (1982). A Plain Man's Guide to the Proportional Hazards Model. Clin Investigat Med 5(1):63-68.
6. Tibshirani R. and Ciampi, A. (1983). A Family of Proportional- and Additive-Hazards Models for Survival Data. Biometrics 39(1):141-147.
7. Tibshirani, R. and Ciampi, A. (1984). Degrees of Freedom in Model-Fitting: Reply. Biometrics 40(1):256-256.
8. Friedman, J. and Tibshirani, R. (1984). The Monotone Smoothing of Scatterplots. Technometrics l26(3):243-250.
9. Llewellyn-Thomas H., Sutherland, H., Tibshirani, R.J., Ciampi, A., Till, J.E. and Boyd, N.F. (1984). Describing Health States: Methodologic Issues in Obtaining Values for Health States. Medical Care 22(6):543-552.
10. Hastie, T. and Tibshirani, R. (1985). Generalized Additive Models: Some Applications. In *Proceedings of the 2nd International Conference on Generalized Linear Models*. Springer-Verlag Lecture Notes in Statistics, 32. Berlin, Heidelberg.
11. Efron, B. and Tibshirani, R. (1985). The Bootstrap Method for Assessing Statistical Accuracy. Behaviourmetrika 7:1-35.
12. Hastie, T. and Tibshirani, R. (1986). Generalized Additive Models (with discussion). Statist Sci 1(3):295-318.

13. Efron, B. and Tibshirani, R. (1986). The Bootstrap Method for Standard Errors, Confidence Intervals and Other Measures of Statistical Accuracy. Statist Sci 1(1):1-35.

14. Trainor, J., Boydell, K. and Tibshirani, R. (1986). Short-Term Economic Change and the Utilization of Mental Health Facilities in a Metropolitan Area. Can J Psych 32:379-383.

15. Tibshirani, R. and Hastie, T. (1987). Local Likelihood Estimation. J Amer Statist Assoc 82(398):559-567.

16. DiCiccio, T. and Tibshirani, R. (1987). Bootstrap Confidence Intervals and Bootstrap Approximations. J Amer Statist Assoc 82(397):161-169.

17. Hastie, T. and Tibshirani, R. (1987). Generalized Additive Models: Some Applications. J Amer Statist Assoc 82(398):371-386.

18. Hastie, T. and Tibshirani, R. (1987). Non-parametric Logistic and Proportional Odds Regression. J Roy Statist Soc Ser C 36(3):260-276.

19. Diciccio, T. and Tibshirani, R. (1987). Bootstrap Confidence Intervals and Bootstrap Approximations (with discussion and a rejoinder by the authors). J Amer Statist Assoc 82(397):163-188.

20. McCullagh, P. and Tibshirani, R. (1988). A Simple Adjustment for Profile Likelihoods. J Roy Statist Soc Ser B 52(2):325-344.

21. Tibshirani, R. (1988). Variance Stabilization and the Bootstrap. Biometrika 75(3):433-444.

22. Tibshirani, R. and Wasserman, L.A. (1988). Sensitive Parameters. Can J Stat 16(2):185-192.

23. Tibshirani, R. (1988). Estimating Optimal Transformations for Regression via Additivity and Variance Stabilization. J Amer Statist Assoc 83(204):394-405.

24. Risch, H.A. and Tibshirani, R. (1988). Polychotomous Logistic-Regression Methods for Matched Case-Control Studies with Multiple Case or Control-Groups. Amer J Epidemiol 128(2):446-448.

25. Tibshirani, R. (1988). Estimating Transformations for Regression via Additivity and Variance Stabilization. J Amer Statist Assoc 83(402):394-405.

26. Tibshirani, R. (1989). Non-informative Priors for One Parameter of Many. Biometrika 76(3):604-608.

27. Miller, A.B., Prentice, R., Tibshirani, R., Boyd, N., Corey, P. and Fox, T. (1989). Cancer-Research Workshop on Prevention Trials: Meeting Held at Toronto, Canada, May 10-12, 1989. Internat J Cancer 44(5):767-769.

28. Buja, A., Hastie, T. and Tibshirani, R. (1989). Linear Smoothers and Additive Models (with discussion and a rejoinder by the authors). Ann Stat 17(2):453-555.

29. Hastie, T. and Tibshirani, R. (1990). A Method for Exploring the Nature of Covariate Effects in the Proportional Hazards Model. Biometrics 48:1005-1016.

30. Hastie, T. and Tibshirani, R. (1990). Exploring the Nature of Covariate Effects in the Proportional Hazards Model. Biometrics 46(4):1005-1016.

31. Williams, W.G., Rebeyka, I.M., Tibshirani, R., Coles, J., Lightfoot, N.E., Mehra, A., Freedom, R.M. and Trusler, G.A. (1990). Warm Induction Cardioplegia in the Infant: A Technique to Avoid Rapid Cooling Myocardial Contracture. J Thorac Cardio Surg 100(6):896-901.

32. Kerem, E., Tibshirani, R., Canny, G., Bentur, L., Reisman, J., Schuh, S., Stein, R. and Levison, H. (1990). Predicting the Need for Hospitalization in Children with Acute Asthma. Chest 98(6):1355-1361.

33. McCullagh, P. and Tibshirani, R. (1990). A Simple Method for the Adjustment of Profile Likelihoods. J Roy Statist Soc Ser B 52(2):325-344.

34. Efron, B. and Tibshirani, R. (1991). Statistical Data Analysis in the Computer Age. Science 253(5018):390-395.

35. Kerem, E., Canny, G., Tibshirani, R., Reisman, J., Bentur, L., Schuh, S. and Levison, H. (1991). Clinical-Physiological Correlations in Acute Asthma of Childhood. Pediatrics 87(4):481-486.

36. Clavier, P., Subarla, J., Mentha, J., Tibshirani, R. and Strasburg, S. (1992). Recent Results of Elective Open Cholysystectmomy in a North American and a Europe Center. Ann Surg 216(6):618-626.

37. Tibshirani, R. and Leblanc, M. (1992). A Strategy for Binary Description and Classification. J Computat Graphic Stat 1(1):3-10.

38. *Some Applications of the Bootstrap in Complex Problems: Exploring the Limits of the Bootstrap* (R. Tibshirani, R. Lepage, ed.) (1992). Wiley, New York.

39. Clavien, P.A., Sanabria, J.R., Mentha, G., Borst, F., Buhler, L., Roche, B., Cywes, R., Tibshirani, R., Rohner, A. and Strasberg, S.M. (1992). Recent Results of Elective Open Cholecystectomy in a North American and a European Center: Comparison of Complications and Risk Factors. Ann Surg 216(6):618-626.

40. Hastie, T., Sleeper, L. and Tibshirani, R. (1992). Flexible Covariate Effects in the Proportional Hazards Model. Breast Cancer Res 22(3):241-250.

41. Tibshirani, R. (1992). Bootstrap Hypothesis Testing. Biometrics 48(3):969-970.

42. Hastie, T. and Tibshirani, R. (1993) Varying Coefficent Models (with discussion). J Roy Statist Soc Ser B 55:757-796.

43. Tibshirani, R. (1993). Principal Curves Revisited. Statist Comput 2:183-190.

44. McKeown-Eyssen, G. and Tibshirani, R. (1993). Measurement Error in Exposure: Implications for the Sample Size of Case-Control Studies of Diet and Disease. Amer J Epidemiol 139:415-421.

45. Velazquez, R.J., Bell, D.F., Armstrong, P.F., Babyn, P. and Tibshirani, R. (1993). Complications of Use of the Ilizarov Technique in the Correction of Limb Deformities in Children. J Bone Joint Surg Amer 75A(8):1148-1156.

46. Krushnel, L.A., Johnston, J.G., Fishell, G., Tibshirani, R. and van der Kooy, D. (1993). Spatially Localized Neuronal Cell Lineages in the Developing Mammalian Forebrain. Neuroscience 53(4):1035-1047.

47. Leblanc, M. and Tibshirani, R. (1994). Adaptive Principal Surfaces. J Amer Statist Assoc 89:53-64.

48. Bell, D., Walker, J., O'Connor, G. and Tibshirani, R. (1994). Spinal Deformity After Multi-level Cervical Laminectomy in Children. Spine 19:406-411.

49. Tibshirani, R. and Wasserman, L. (1994). Some Aspects of the Reparametrization of Statistical Models. Can J Stat 22:163-173.

50. Hastie, T., Tibshirani, R. and Buja, A. (1994). Flexible Discriminant Analysis by Optimal Scoring. J Amer Statist Assoc 89(428):1255-1270.

51. McKeowneyssen, G.E. and Tibshirani, R. (1994). Implications of Measurement Error in Exposure for the Sample Sizes of Case-Control Studies. Amer J Epidemiol 139(4):415-421.

52. Efron, B. and Tibshirani, R. (1995). Computer-intensive Statistical Methods. In *Encyclopedia of Statistical Sciences* (S. Kotz, ed.), 1-9. Wiley-Interscience, New York.

53. Hastie, T. and Tibshirani, R. (1995). Generalized Additive Models in Medical Research. Stat Med Res 4:187-196.

54. Hastie, T., Buja, A. and Tibshirani, R. (1995). Penalized Discriminant-Analysis. Ann Stat 23(1):73-102.

55. Hastie, T. and Tibshirani, R. (1995). Discriminant Analysis by Mixture Modelling. J Roy Statist Soc Ser B 58:155-176.

56. Leblanc, M. and Tibshirani, R. (1996). Combining Estimates in Regression and Classification, J Amer Statist Assoc 91(436):1641-1650.

57. Tibshirani, R. (1996). The Lasso Method for Variable Selection in the Cox Model. Stat Med 16:385-395.

58. Hastie, T. and Tibshirani, R. (1996). Discriminant Adaptive Nearest Neighbor Classification. IEEE Trans Pattern Anal Machine Intel 18(6):607-616.

59. Hastie, T. and Tibshirani, R. (1996). Generalized Additive Models. In *Encyclopedia of Statistical Sciences* (S. Kotz, ed.), Wiley.

60. Efron, B. and Tibshirani, R. (1996). Using Specially Designed Exponential Families for Density Estimation. Ann Stat 24(6):2431-2461.

61. Mojirsheibani, M. and Tibshirani, R. (1996). Some Results on Bootstrap Prediction Intervals. Can J Stat 24(4):549-568.

62. Hastie, T. and Tibshirani, R. (1996). Discriminant Adaptive Nearest Neighbor Classification. IEEE Trans Pattern Anal Machine Intel 18(6):607-616.

63. Tibshirani, R. (1996). Regression Shrinkage and Selection via the Lasso. J Roy Statist Soc Ser B 58(1):267-288.

64. Hastie, T. and Tibshirani, R. (1996). Discriminant Analysis by Gaussian Mixtures. J Roy Statist Soc Ser B 58(1):155-176.

65. Tibshirani, R. (1996). A Comparison of Some Error Estimates for Neural Network Models. Neural Computat 8(1):152-163.

66. Efron, B. and Tibshirani, R. (1997). Using Specially Designed Exponential Families for Density Estimation. Ann Stat 25:474-478.

67. Efron, B. and Tibshirani, R. (1997). Improvements on Cross-Validation: The .632+ Bootstrap Method. J Amer Statist Assoc 92:548-560.

68. Redelmeier, D. and Tibshirani, R. (1997). Interpretation and Bias in Case-Crossover Studies. J Clin Epidemiol 50(11):1281-1287.

69. Tibshirani, R. (1997). Who is the Fastest Man in the World? American Statistician 51(2):106-111.

70. Hastie, T., Tibshirani, R. and Buja, A. (1997). Flexible Discriminant and Mixture Models. In *Proceedings of Neural Networks and Statistics* (J. Kay, M. Titterington, ed.), Oxford University Press.

71. Efron, B. and Tibshirani, R. (1998). The Problem of Regions. Ann Stat 26(5):1687-1718.

72. Ennis, M., Hinton, G., Naylor, D., Revow, M. and Tibshirani, R. (1998). A Comparison of Statistical Learning Methods on the GUSTO Database. Stat Med 17(21):2501-2508.

73. Tibshirani, R. and Hinton, G.E. (1998). Coaching Variables for Regression and Classification. Stat Comput 8:25-33.

74. Hastie, T. and Tibshirani, R. (1998). Classification by Pairwise Coupling. Ann Stat 26(2):451-471.

75. Berhane, K. and Tibshirani, R. (1998). Generalized Additive Models for Longitudinal Data. Can J Stat 26(4):517-535.

76. Leblanc, M. and Tibshirani, R. (1998). Monotone Shrinkage of Trees. J Computat Graphic Stat 7(4):417-433.

77. Tibshirani, R. and Knight, K. (1999). Model Search by Bootstrap "Bumping." J Computat Graphic Stat 8(4):671-686.

78. Hastie, T., Ikeda, D. and Tibshirani, R. (1999). Statistical Measures for the Computer-Aided Diagnosis of Mammographic Masses. J Computat Graphic Stat 8(3):531-54.

79. Tibshirani, R. and Knight, K. (1999). The Covariance Inflation Criterion for Adaptive Model Selection. J Roy Statist Soc Ser B 61(pt.3):529-546.

80. Redelmeier, D.A. and Tibshirani, R. (1999). Why Cars in the Next Lane Seem to Go Faster. Nature 401(6748):35-36.

81. Redelmeier, D.A. and Tibshirani, R. (2000). Are Those Other Drivers Really Going Faster? Chance 13:8-14.

82. Friedman, J., Hastie, T. and Tibshirani, R. (2000). Additive Logistic Regression: A Statistical View of Boosting (with discussion and a rejoinder by the authors). Ann Stat 28(2):337-407.

83. Hastie, T. and Tibshirani, R. (2000). Bayesian Backfitting (with discussion). Statist Sci 15(3):196-213.

84. Hastie, T., Tibshirani, R., Eisen, M., Alizadeh, A., Levy, R., Staudt, L., Botstein, D. and Brown, P. (2000). 'Gene shaving' as a method for identifying distinct sets of genes with similar expression patterns. Genome Biol 1(2):1-21.

85. Hastie, T., Tibshirani, R., Botstein, D. and Brown, P. (2000). Supervised Harvesting of Expression Trees. Genome Biol 2(1):1-12.

86. Redelmeier, D.A. and Tibshirani, R. (2001). Car Phones and Car Crashes: Some Popular Misconceptions. Can Med Assoc J 164(11):1581-1582.

87. Efron, B., Tibshirani, R., Storey, J.D. and Tusher, V. (2001). Empirical Bayes Analysis of a Microarray Experiment. J Amer Statist Assoc 96(456):1151-1160.

88. Susko, E., Bronskill, M.J., Graham, S.J. and Tibshirani, R. (2001). Estimation of Relaxation Time Distributions in Magnetic Resonance Imaging. Can J Stat 29(3):379-394.

89. Tusher, V.G., Tibshirani, R. and Chu, G. (2001). Significance Analysis of Microarrays Applied to the Ionizing Radiation Response. Proc Natl Acad Sci USA 98(9):5116-5121.

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