

# ROBERT JOHN TIBSHIRANI

Professor of Statistics and of Biomedical Data Science

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## 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)

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## Academic Experience

07.1985–06.1989      Assistant Professor, Department of Statistics, University of Toronto  
07.1989–07.1994      Associate 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  
07.1989–06.1994      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      Member, Institute of Mathematical Statistics Council  
1994      Series Editor, Chapman & Hall Computing and Graphics Monographs  
1994      Program chair, SSC annual meeting in Banff  
1995–      Chair, IMS Committee on Computerization  
1995–      Associate Editor, *Statistical Science*  
1995–1996      Program Chair, ASA Statistical Computing  
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*

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## Memberships

Fellow, American Statistical Association  
Fellow, Royal Society of Canada

Fellow, Institute of Mathematical Statistics  
Member, National Academy of Sciences

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## 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

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## 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

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## 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.
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## Refereed Discussions

1. Hastie, T. and Tibshirani, R. (1985). Discussion of “Projection pursuit” by Huber. *Ann Statist* 13(2):502–508.
2. Tibshirani, R. (1986). Discussion of “Jackknife, bootstrap and other resampling methods in regression analysis” by Wu. *Ann Statist* 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 Statist* 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 Epidemiol* 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 Statist* 19(1):93-99.
11. Tibshirani, R. (1994). Comment on “Neural networks: A review from a statistical perspective” by Cheng and Titterton. *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 Kerkycharian, 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

### **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* 26(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. *Behaviour-metrika*, No 7, pp.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 Psychiatry*, Vol.32, pp.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. Diccio, 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 Statist* 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, pp.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 Choleystectomy 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. Clavier, 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 Coefficient Models (with discussion). *J Roy Statist Soc Ser B* 55, pp.757-796.
43. Tibshirani, R. (1993). Principal Curves Revisited. *Statist Comput* Vol.2, pp.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* Vol.139, pp.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, pp.53-64.
48. Bell, D., Walker, J., O'Connor, G. and Tibshirani, R. (1994). Spinal Deformity After Multi-level Cervical Laminectomy in Children. *Spine* Vol.19, pp.406-411.
49. Tibshirani, R. and Wasserman, L. (1994). Some Aspects of the Reparametrization of Statistical Models. *Can J Stat* Vol.22, pp.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, pp.187-196.
54. Hastie, T., Buja, A. and Tibshirani, R. (1995). Penalized Discriminant-Analysis. *Ann Statist* 23(1):73-102.
55. Hastie, T. and Tibshirani, R. (1995). Discriminant Analysis by Mixture Modelling. *J Roy Statist Soc Ser B* 58, pp.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* Vol.16, pp.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 Statist* 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 Statist* Vol.25, pp.474-478.
67. Efron, B. and Tibshirani, R. (1997). Improvements on Cross-Validation: The .632+ Bootstrap Method. *J Amer Statist Assoc* Vol.92, pp.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. Titterton, ed.), Oxford University Press.
71. Efron, B. and Tibshirani, R. (1998). The Problem of Regions. *Ann Statist* 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* Vol.8, pp.25-33.
74. Hastie, T. and Tibshirani, R. (1998). Classification by Pairwise Coupling. *Ann Statist* 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 Statist* 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.
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