

C U R R I C U L U M V I T A E

JERALD FRANKLIN LAWLESS

August 5, 1944 (Pembroke, Ontario)

DEGREES

1966 B.Sc. University of Waterloo
1967 M.Sc. University of Waterloo
1969 Ph.D. University of Waterloo

ACADEMIC APPOINTMENTS

1965	Summer Fellow	Biometrics Division National Research Council
1967-8	Lecturer	University of Waterloo Department of Statistics
1968-9	Lecturer (part-time)	University of Waterloo Department of Statistics
1969-70	NRC Post-Doctoral Fellow	University of Edinburgh
1970-2	Assistant Professor	University of Manitoba Department of Statistics
1972-3	Assistant Professor	University of Waterloo Department of Statistics
1973-80	Associate Professor	University of Waterloo Department of Statistics
1973-77	Graduate Officer	University of Waterloo Department of Statistics
1978-79	Visiting Fellow	University of Reading and Imperial College, London
1979-84	Chair	University of Waterloo Department of Statistics and Actuarial Science
1980-2007	Professor	University of Waterloo Department of Statistics and Actuarial Science
1986	Visiting Fellow	University College and Imperial College, London.
1987-88	Acting Chair	University of Waterloo Department of Statistics and Actuarial Science
1994-2004	GM-NSERC Industrial Research Chair	University of Waterloo Department of Statistics and Actuarial Science
2000	Visiting Professor	University of Auckland
2004-05	Acting Chair	University of Waterloo Department of Statistics and Actuarial Science

2008-	Distinguished Professor Emeritus	University of Waterloo Department of Statistics and Actuarial Science
2010-2017	Adjunct Professor	University of Toronto Dalla Lana School of Public Health

SELECTED PROFESSIONAL ACTIVITIES

Associate Editor, *Technometrics* (1975-82). Editor-Elect (1983).
 Editor, *Technometrics* (1984-86).
 Member of N.S.E.R.C. Statistical Sciences Grant Selection Committee (1984-87).
 Member of Board of Directors, American Statistical Association (1985).
 Member of Board of Directors, Statistical Society of Canada (1985-89, 1992-95).
 Chair, *Technometrics* Management Committee (1988-1990).
 President, Statistical Society of Canada (1993-94).
 Holder of General Motors - NSERC Industrial Research Chair in Quality and Productivity (1994-2004).
 Associate Editor, *Biometrika* (1994-97).
 Editorial Board, Springer-Verlag Series in Statistics for Engineering and Information Science (1996-2002).
 Member, Statistics Canada Advisory Committee on Statistical Methods (1997-2006).
 Member, Scientific Advisory Board, Centre de Recherches Mathématiques (1998-2002).
 Associate Editor, *Canadian Journal of Statistics* (1998-2006).
 Member, N.S.E.R.C. Committee on Research Grants and Group Chair (1998-99)
 Co-editor, *Lifetime Data Analysis*, 1999-2002, Associate Editor, 2003-2007
 Chair, Royal Society of Canada Synge Committee (2005-7), Member (2004-5)
 Member, Royal Society of Canada Fellows Selection Committee for Physical and Mathematical Sciences (2004-7)
 Member, Scientific Advisory Panel, Fields Institute of Mathematical Sciences (2005-2008)
 Member, Scientific Technical Advisory Committee of Scientific Registry of Transplant Recipients, USA (2008-2012)
 Guest Editor, *Canadian Journal of Statistics*, Papers on Covid-19 Research (2020-22)
 Visiting appointments at Universities of Reading, Toronto, Imperial College London, University College London, University of California at San Francisco, University of Auckland.
 Statistical consultant to various individuals and organizations.
 Program Chair for various research conferences.
 Consultant to numerous organizations in the public and private sector; expert witness.
 External reviewer for numerous departments.
 Presenter of numerous plenary talks, workshops and short courses.

SCHOLARSHIPS AND FELLOWSHIPS

1962 Ontario Scholarship, Herculano Scholarship
1962-6 University of Waterloo Scholarship
1962-3 University Faculty Prize
1964-5 University Faculty Prize
1966-7 National Research Council Scholarship
1968-9 Queen Elizabeth II Ontario Scholarship
1969-70 National Research Council Post-Doctoral Fellowship

SELECTED AWARDS AND HONOURS

1979 Youden Award (for paper 25, below)
1983 Fellow, American Statistical Association
1990 Fellow, Institute of Mathematical Statistics
1994 GM-NSERC Industrial Research Chair in Quality and Productivity
1999 Canadian Journal of Statistics Award (for paper 74, below)
1999 Statistical Society of Canada Gold Medal
1999 Wilcoxon Award (for paper 70, below)
2000 Elected Fellow, Royal Society of Canada
2002 Induction to University of Waterloo Athletics Hall of Fame
2008 Distinguished Professor Emeritus, University of Waterloo
2012 Shewhart Medal, American Society for Quality
2014 Honorary Member, Statistical Society of Canada

AREAS OF INTEREST: Analysis of lifetime and life history data;
biostatistics; epidemiology; reliability;
data integration; incomplete data; inference; prediction.

SUPERVISION OF THESES

1. Combinatorial Problems in Confounded, Factorial Designs, by D.W. Mallenby, M.Sc. Thesis, University of Manitoba, May 1972.
2. On Pooling Sample Means from Exponential and Poisson Distributions, by K. Singhal, M. Math Thesis, University of Waterloo, September 1974.
3. Topics in Exponential Regression Models, by K. Singhal, Ph.D. Thesis, University of Waterloo, October, 1978.

4. A Generalized Chisquare Goodness of Fit Procedure, by R. Shillington, Ph.D. Thesis, University of Waterloo, December 1978. (Winner of 1979 Pierre Robillard Award of the Statistical Society of Canada for best Statistics Thesis of 1978). Joint supervision with J.D. Kalbfleisch.
5. Some Issues in the Regression Analysis of Survival Data, by A. Gould, Ph.D. Thesis, University of Waterloo, October 1986.
6. Goodness of Fit Tests and Two Sample Tests for Grouped and Censored Lifetime Data, by J. Cook, Ph.D. Thesis, University of Waterloo, March 1988.
7. Mixed Poisson Models and Regression Methods for Count Data, by C. Dean, Ph.D. Thesis, University of Waterloo, June 1988.
8. Some Methods for the Analysis of Toxicological Mortality Data Grouped Over Time, by R.J. O'Hara Hines, Ph.D. Thesis, University of Waterloo, December, 1989.
9. An Implementation of a Lifetime Model, by A.J. Myrvold, M. Math Thesis, University of Waterloo, September, 1990.
10. Some Methods for Multi-State Life History Analysis with Incomplete Data, by P. Yan, Ph.D. Thesis, University of Waterloo, September, 1992.
11. Empirical Likelihood and Semiparametric Models, by J. Qin, Ph.D. Thesis, University of Waterloo, December, 1992. (Winner of 1993 Pierre Robillard Award of the Statistical Society of Canada for best Statistics Thesis of 1992).
12. Estimation from Truncated Data with Supplementary Information, with Application to Field Reliability, by X. Joan Hu, Ph.D. Thesis, University of Waterloo, March, 1995. (Winner of 1996 Pierre Robillard Award of the Statistical Society of Canada for best Statistics Thesis of 1995.)
13. Inference for Point Processes Through Estimating Functions, by C. Nadeau, Ph.D. Thesis, University of Waterloo, August, 1995.
14. Variation Transmission in Multi-stage Industrial Processes, by R. Agrawal, Ph.D. Thesis, University of Waterloo, April, 1997. Joint supervision with R.J. MacKay.
15. State Space Models and Filtering Methods in Longitudinal Studies, by D.Y.T. Fong, Ph.D. Thesis, University of Waterloo, August 1997.
16. Inference in Nonhomogeneous Poisson Process Models, with Applications to Software Reliability, by J. Jean, Ph.D. Thesis, University of Waterloo, November 1998.
17. Analysis of Incomplete Event History Data, by M. Zhan, Ph.D. Thesis, University of Waterloo, March 1999.
18. Multiple Time Scales in Survival Analysis, by T. Duchesne, Ph.D. Thesis, University of Waterloo, September 1999.

19. Accounting for Misclassification in Binary Longitudinal Data, by Rhonda Rosychuk, Ph.D. Thesis, University of Waterloo, September 1999. Co-Supervisor with M.E. Thompson.
20. Methods for the Analysis of Multivariate Failure Times, by Wenqing He, Ph.D. Thesis, University of Waterloo, December 2001.
21. Duration Data Analysis in Longitudinal Surveys, by Christian Boudreau, Ph.D. Thesis, University of Waterloo, May 2003.
22. Prediction of Recurrent Events, by Marc Fredette, PhD Thesis, University of Waterloo, September 2004.
23. Goodness of Fit Tests for Lifetime Data Models When Responses are Interval Censored, by Denise Babineau, Ph.D. Thesis, University of Waterloo, May 2005.
24. Design and Efficient Estimation in Regression Analysis with Missing Data in Two Phase Studies, by Yang Zhao, Ph.D. Thesis, University of Waterloo, May 2005. Co-Supervisor with D.L. McLeish.
25. Prediction Performance of Survival Models, by Yan Yuan, Ph.D. Thesis, University of Waterloo, September 2008.
26. Estimation and Goodness of Fit for Multivariate Survival Models Based on Copulas, by Yildiz Yilmaz, Ph.D. Thesis, University of Waterloo, August 2009.
27. Analysis of Duration Data from Longitudinal Surveys Subject to Loss-to-Followup, by Dagmar Mariaca Hajducek, Ph.D. Thesis, University of Waterloo, September 2010.
28. Some Models and Tests for Carryover Effects and Trends in Recurrent Event Processes, by Candemir Cigsar, Ph.D. Thesis, University of Waterloo, September 2010.
29. Statistical Methodologies for Genetic Association Studies with Rare Variants, by Andriy Derkach, Ph.D. Thesis, University of Toronto, June 2014. Co-Supervisor with Lei Sun.
30. Multistate Models for Biomarker Processes, by Narges Nazeri Rad, Ph.D. Thesis, University of Waterloo, August 2014.
31. Event History Analysis in Longitudinal Cohort Studies with Intermittent Inspection Times, by Yayuan Zhu, Ph.D. Thesis, University of Waterloo, January 2016. Co-Supervisor with C. Cotton.
32. Empirical Likelihood Methods for Some Incomplete Data Problems, by Menglu Che, Ph.D. Thesis, University of Waterloo, December 2020. Co-supervisor with Peisong Han.
33. Estimands in Randomized Clinical Trials with Complex Life History Processes, by Alexandra Bühler, Ph.D. Thesis, University of Waterloo, December 2024. Co-supervisor with Richard Cook.

Supervision or mentoring of various other postdoctoral fellows, Ph.D. and Masters students; service on thesis committees in Departments of Statistics, Public Health, Electrical Engineering, Chemical Engineering, Systems Design Engineering, Management Science, and Combinatorics and Optimization. External reviewer for many PhD theses.

PUBLICATIONS

BOOKS

1. Lawless, J.F. (1982). *Statistical Models and Methods for Lifetime Data*. John Wiley and Sons, New York, 580 pp.
2. Lawless, J.F. (2003). *Statistical Models and Methods for Lifetime Data, 2nd edition*. John Wiley and Sons, Hoboken, 630 pp.
3. Cook, R.J. and Lawless, J.F. (2007). *The Statistical Analysis of Recurrent Events*. Springer, New York, 403 pp. (Website <http://www.math.uwaterloo.ca/~rjcook/cook-lawless-recurrent.html>)
4. Lawless, J.F. (2014). *Statistics in Action: A Canadian Outlook* (Editor). Taylor and Francis/CRC Press, Boca Raton, 360 pp.
5. Cook, R.J. and Lawless, J.F. (2018). *Multistate Models for the Analysis of Life History Data*. Taylor and Francis/CRC Press, 414 pp. (Website <http://www.math.uwaterloo.ca/~rjcook/cook-lawless-multistate.html>)

PAPERS IN REFEREED JOURNALS

1. Lawless, J.F., Mullin, R.C. and Stanton, R.G. (1969). Quasi-Residual Designs, *Aequationes Mathematicae* 2, 274-281.
2. Lawless, J.F. (1970). Block Intersections in Quasi-Residual Designs, *Aequationes Mathematicae* 5, 40-46.
3. Lawless, J.F. (1971). An Investigation of Bhattacharya-Type Designs, *J. of Combinatorial Theory II*, 139-147.
4. Lawless, J.F. (1971). A Note on Certain Types of B.I.B.D.'s Balanced for Residual Effects, *Annals of Math. Stats.*, 1439-1441.

5. Lawless, J.F. (1971). Note on a Family of B.I.B.D.'s and Sets of Mutually Orthogonal Latin Squares, *J. of Combinatorial Theory II*, 101-105.
6. Lawless, J.F. (1971). A Prediction Problem Concerning Samples from the Exponential Distribution, with Applications in Life-Testing, *Technometrics* 13, 725-730.
7. Lawless, J.F. and Stanton, R.G. (1971). Covering Problems and a Family of Symmetrical P.B.I.B.D.'s, *Sankhya, Series A*, 433-440.
8. Lawless, J.F. (1972). On Prediction Intervals for Samples from the Exponential Distribution and Prediction Limits for System Survival, *Sankhya, Series B*, 34, 1-14.
9. Lawless, J.F. (1972). Conditional Confidence Interval Procedures for the Location and Scale Parameters of the Cauchy and Logistic Distributions, *Biometrika* 59, 377-386.
10. Lawless, J.F. (1972). Confidence Interval Estimation for Parameters of the Weibull Distribution, *Utilitas Mathematica* 2, 71-87.
11. Lawless, J.F. (1972). Some Comments on Two Papers by Bury and Bernholtz, *INFOR* 10, 320-324.
12. Lawless, J.F. (1973). On Prediction of Safe Life When the Underlying Life Distribution is Weibull, *Technometrics* 15, 857-865.
13. Lawless, J.F. (1973). Conditional vs. Unconditional Confidence Intervals for the Parameters of the Weibull Distribution, *J. American Statist. Assoc.* 68, 605-609.
14. Lawless, J.F. (1974). On the Construction of Handcuffed Designs, *J. Combinatorial Theory, Series A*, 16, 78-86.
15. Lawless, J.F. (1974). Further Results Concerning the Existence of Handcuffed Designs, *Aequationes Mathematicae* 11, 97-106.
16. Lawless, J.F. (1974). On Prediction of Survival Time for Individual Systems, *IEEE Transactions on Reliability* 23, 235-241.
17. Lawless, J.F. (1974). Approximations to Confidence Intervals for Parameters in the Extreme Value and Weibull Distributions, *Biometrika* 61, 123-129.
18. Lawless, J.F. (1975). Construction of Tolerance Bounds for the Extreme Value and Weibull Distributions, *Technometrics* 17, 255-261.
19. Lawless, J.F. and Mann, N.R. (1976). Tests for Homogeneity for Extreme Value Scale Parameters, *Communications in Statistics, A5*, 389-405.
20. Lawless, J.F. and Wang, P. (1976). A Simulation Study of Ridge and Other Regression Estimators, *Communications in Statistics, A5*, 307-323.
21. Lawless, J.F. (1976). Confidence Interval Estimation in the Inverse Power Law Model, *Applied Statistics*, 25, 128-138.

22. Lawless, J.F. (1977). Prediction Intervals for the Two Parameter Exponential Distribution, *Technometrics* 19, 469-72.
23. Lawless, J.F. (1978). Ridge and Related Regression Estimators: Theory and Practice, *Communications in Statistics*, A7, 139-64.
24. Lawless, J.F. and Singhal, K. (1978). Efficient Screening of Nonnormal Regression Models, *Biometrics* 34, 318-27.
25. Lawless, J.F. (1978). Confidence Interval Estimation for the Weibull and Extreme Value Distributions, *Technometrics*, 20, 355-64.
26. Lawless, J.F. and Stone, G.C. (1979). The Application of Weibull Statistics to Insulation Aging Tests. *IEEE Transactions on Electrical Insulation*, EI-14, 233-9.
27. Lawless, J.F. (1980). Inference in the Generalized Gamma and Log Gamma Distributions, *Technometrics*, 22, 409-19.
28. Lawless, J.F. and Singhal, K. (1980). Analysis of Data from Factorial Life Test Experiments. *Naval Research Logistics Quart.*, 27, 323-34.
29. Lawless, J.F. (1981). Mean Square Error Properties of Some Generalized Ridge Regression Estimators, *J. Amer. Statist. Assoc.* 76, 462-66.
30. Ciampi, A., Hogg, S.A. and Lawless, J.F. (1982). GGDMLE: Computer Program Which Finds Maximum Likelihood Estimates for the Generalized Log Gamma Distribution. *Computer Programs in Biomedicine*, 15, 201-216.
31. Kalbfleisch, J.D., Lawless, J.F. and Vollmer, W.M. (1983). Estimation in Markov Models from Aggregate Data. *Biometrics* 39, 907-19.
32. Lawless, J.F. (1983). Statistical Methods in Reliability (with discussion). *Technometrics*, 25, 305-15.
33. Kalbfleisch, J.D. and Lawless, J.F. (1984). Least Squares Estimation of Transition Probabilities from Aggregate Data. *Canad. J. Statistics*, 12, 169-182.
34. Lawless, J.F. and McLeish, D.L. (1984). The Information in Aggregate Data from Markov Chains. *Biometrika*, 31, 419-430.
35. Kalbfleisch, J.D. and Lawless, J.F. (1985). The Analysis of Panel Data under a Markov Assumption. *J. Amer. Statist. Assoc.*, 80, 863-871.
36. Lawless, J.F. (1986). A Note on Lifetime Regression Models. *Biometrika*, 73, 509-512.
37. Lawless, J.F. and Singhal, K. (1987). ISMOD: An All-Subsets Regression Program for Generalized Linear Models, Parts 1 and II. *Computer Methods and Programs in Biomedicine*, 24, 117-124 and 125-134.

38. Lawless, J.F. (1987). Regression Methods for Poisson Process Data. *J. Amer. Statist. Assoc.* 82, 808-815.
39. Lawless, J.F. (1987). Negative Binomial and Mixed Poisson Regression. *Canadian J. Statistics* 15, 209-225.
40. Kalbfleisch, J.D. and Lawless, J.F. (1988). Likelihood Analysis of Multi-State Models for Disease Incidence and Mortality. *Statistics in Medicine*, 7, 149-160.
41. Ciampi, A., Lawless, J.F., McKinney, S. and Singhal, K. (1988). Regression and Recursive Partitioning Strategies in Medical Survival Studies. *J. Clinical Epidem.* 41, 737-748.
42. Gould, A. and Lawless, J.F. (1988). Consistency and Efficiency of Regression Coefficient Estimates in Location-Scale Models. *Biometrika* 73, 535-40.
43. Kalbfleisch, J.D. and Lawless, J.F. (1988). Estimation of Reliability from Field Performance Studies (with discussion). *Technometrics* 30, 365-378.
44. Kalbfleisch, J.D. and Lawless, J.F. (1988). Estimating the Incubation Period for AIDS Patients (Letter). *Nature* 333, 504.
45. Gould, A. and Lawless, J.F. (1988). The Information about Lifetime Regression Models when Responses are Censored or Grouped. *Comm. Statistics B* 17, 689-712.
46. Dean, C. and Lawless, J.F. (1989). Tests for Detecting Overdispersion in Poisson Regression Models. *J. Amer. Statist. Assoc.* 84, 467-72.
47. Dean, C., Lawless, J.F. and Willmot, G.E. (1989). A Mixed Poisson-Inverse Gaussian Regression Model. *Canadian J. Statistics* 17, 171-181.
48. Kalbfleisch, J.D. and Lawless, J.F. (1989). Estimating the Incubation Time Distribution and Expected Number of Cases for Transfusion-Associated Acquired Immune Deficiency Syndrome. *Transfusion*, 29, 672-76.
49. Kalbfleisch, J.D. and Lawless, J.F. (1989). Inference Based on Retrospective Ascertainment. An Analysis of the Data on Transfusion Related AIDS. *J. Amer. Statist. Assoc.* 84, 360-72.
50. Cook, J.A. and Lawless, J.F. (1991). Two Sample Tests with Multinomial or Grouped Failure Time Data. *Biometrics* 47, 445-459.
51. Kalbfleisch, J.D. and Lawless, J.F. (1991). Regression Models for Right Truncated Data, with Applications to AIDS Incubation Times and Reporting Lags. *Statistica Sinica* 1, 19-32.
52. Kalbfleisch, J.D., Lawless, J.F. and Robinson, J.A. (1991). Methods for the Analysis and Prediction of Warranty Claims. *Technometrics* 33, 273-285.

53. O'Hara Hines, R.J., Lawless, J.F. and Carter, E.M. (1992). Diagnostics for a multinomial generalized linear model, with applications to grouped toxicological mortality data. *J. Amer. Statist. Assoc.*, *87*, 1059-1069.
54. Kalbfleisch, J.D. and Lawless, J.F. (1992). Some useful statistical methods for truncated data. *J. Qual. Tech.* *24*, 145-152.
55. O'Hara Hines, R.J. and Lawless, J.F. (1993). Modelling overdispersion in toxicological mortality data grouped over time. *Biometrics*, *49*, 107-121.
56. Qin, Jing and Lawless, J.F. (1994). Empirical likelihood and general estimating equations. *Annals of Statistics*, *22*, 300-325.
57. Lawless, J.F. (1994). Adjustments for reporting delays and the prediction of occurred but not reported events. *Canadian Journal of Statistics*, *22*, 15-31.
58. Gentleman, R., Lawless, J.F., Lindsey, J.C. and Yan, P. (1994). Multistate Markov models for analyzing incomplete disease history data, with illustrations for HIV disease. *Statistics in Medicine*, *13*, 805-821.
59. Lawless, J.F. and Nadeau, J.C. (1995). Some simple robust methods for the analysis of recurrent events. *Technometrics*, *37*, 158-168.
60. Lawless, J.F. (1995). The analysis of recurrent events for multiple subjects. *Applied Statistics*, *44*, 487-498.
61. Qin, Jing and Lawless, J.F. (1995). Estimating equations, empirical likelihood, and constraints on parameters, *Canadian Journal of Statistics*, *23*, 145-159.
62. Lawless, J.F., Hu, X.J. and Cao, J. (1995). Methods for the estimation of failure distributions and rates from automobile warranty data. *Lifetime Data Analysis*, *1*, 227-240.
63. Hu, X.J. and Lawless, J.F. (1996). Estimation of rate and mean functions from truncated recurrent event data. *J. American Statist. Assoc.*, *91*, 300-310.
64. Lawless, J.F. and Thiagarajah, K. (1996). A point process model incorporating renewals and time trends. *Technometrics*, *38*, 131-138.
65. Cook, R.J., Lawless, J.F. and Nadeau, C. (1996). Robust tests for treatment comparisons based on recurrent event responses. *Biometrics*, *52*, 557-571.
66. Cook, R.J. and Lawless (1996). Interim monitoring of longitudinal comparative studies with recurrent event responses. *Biometrics*, *52*, 1311-1323.
67. Hu, X.J. and Lawless, J.F. (1996). Estimation from truncated lifetime data with supplementary information on covariates and censoring times. *Biometrika*, *83*, 747-762.

68. Cook, R.J. and Lawless, J.F. (1997). Marginal analysis of recurrent events and a terminating event. *Statistics in Medicine*, 16, 911-924.
69. Hu, X.J. and Lawless, J.F. (1997). Pseudolikelihood estimation in a class of problems with response-related missing covariates. *Canad. J. Statistics*, 25, 125-142.
70. Hu, X.J., Lawless, J.F. and Suzuki, K. (1998). Nonparametric estimation of a lifetime distribution when censoring times are missing. *Technometrics*, 40, 3-13.
71. Fong, D.Y.T. and Lawless, J.F. (1998). The analysis of variation transmission with multiple measurements. *Statistica Sinica*, 8, 151-164.
72. Lawless, J.F. (1998). Statistical analysis of product warranty data. *International Statistical Review*, 66, 41-60.
73. Nadeau, C. and Lawless, J.F. (1998). Inferences for means and covariances of point processes through estimating functions. *Biometrika*, 85, 893-906.
74. Lawless, J.F. and Zhan, M. (1998). Analysis of interval-grouped recurrent event data using piecewise - constant rate functions. *Canad. J. Statistics*, 26, 549-565.
75. Whitmore, G.A., Crowder, M. and Lawless, J.F. (1998). Failure inference from a marker process based on a bivariate Wiener model. *Lifetime Data Analysis*, 4, 229-251.
76. Lawless, J.F. and Fong, D.Y.T. (1999). State duration models in clinical and observational studies. *Statistics in Medicine*, 18, 2365-2376.
77. Lawless, J.F., Wild, C.J. and Kalbfleisch, J.D. (1999). Semiparametric methods for response-selective and missing data problems in regression. *J. Roy. Statist. Soc. B*, 61, 413-438.
78. Lawless, J.F., MacKay, R.J. and Robinson, J.A. (1999). Analysis of variation transmission in manufacturing processes - Part I. *J. Quality Technology*, 31, 131-142.
79. Agrawal, R., Lawless, J.F. and MacKay, R.J. (1999). Analysis of variation transmission for manufacturing processes - Part II. *J. Quality Technology*, 31, 143-154.
80. Lawless, J.F. (1999). Statistical Science: concepts, opportunities and challenges. *Canadian Journal of Statistics*, 27, 671-682.
81. Duchesne, T. and Lawless, J.F. (2000). Alternative time scales and failure time models. *Lifetime Data Analysis*, 6, 157-179.
82. Lawless, J.F. (2000). Introduction to two classics in reliability theory. *Technometrics*, 42, 5-6.
83. Tuli, S., Drake, J.M., Lawless, J.F., Wigg, M.B. and Lamberti-Pasculli, M. (2000). Risk factors for repeated cerebrospinal shunt failures in pediatric patients with hydrocephalus. *Journal of Neurosurgery*, 92, 31-38.

84. Lawless, J.F. (2000). Statistics in Reliability. *J. Amer. Statist. Assoc.* 95, 989-992.
85. Fong, D.Y.T., Lam, K.F., Lawless, J.F. and Lee, Y.W. (2001). Dynamic random effects models for times between repeated events. *Lifetime Data Analysis*, 7, 345-362.
86. Lawless, J.F., Wigg, M.B., Tuli, S., Drake, J.M. and Lamberti-Pasculli, M (2001). Analysis of repeated failures or durations, with application to shunt failures for patients with pediatric hydrocephalus. *Journal of the Royal Statistical Society, Series C (Applied Statistics)*, 50, 449-465.
87. Cook, R.J. and Lawless, J.F. (2001). Some comments on efficiency gains from auxiliary information for right-censored data. *J. Statist. Plan. Inf.* 96, 191-202.
88. Duchesne, T. and Lawless, J.F. (2001). Semiparametric inference methods for general time scale models. *Lifetime Data Analysis*, 8, 263-276.
89. Cook, R.J. and Lawless, J.F. (2002). Analysis of repeated events. *Statistical Methods in Medical Research* 11, 141-166.
90. Farewell, V.T., Lawless, J.F., Gladman, D.D. and Urowitz, M.B. (2003). Analysis of the effect of lost-to-followup on the estimation of mortality from patient registry data. *Applied Statistics*, 52, 445-456.
91. Cook, R.J., Lawless, J.F. and Lee, K.-A. (2003). Cumulative processes related to event histories. *Statistics and Operations Research Transactions*, 27, 13-29.
92. He, W. and Lawless, J.F. (2003). Flexible maximum likelihood methods for bivariate proportional hazards models. *Biometrics*, 59, 837-848.
93. Lawless, J.F. and Crowder, M. (2004). Covariates and random effects in a gamma process model with application to degradation and failure. *Lifetime Data Analysis*, 10, 213-227.
94. Lawless, J.F. (2004). A note on interval-censored lifetime data and Oller et al's constant sum condition. *Canad. J. Statistics*, 32, 327-331.
95. He, W. and Lawless, J.F. (2005). Bivariate location-scale models for regression analysis, with applications to lifetime data. *J. Roy. Statist. Soc. B*, 67, 63-78.
96. Chen, B., Cook, R.J., Lawless, J.F. and Zhan, M. (2005). Statistical methods for multivariate interval-censored recurrent events. *Statistics in Medicine*, 24, 671-691.
97. Lawless, J.F. and Fredette, M. (2005). Frequentist prediction intervals and predictive distributions. *Biometrika*, 92, 529-542.
98. Bond, S., Farewell, V.T., Schentag, C., Lawless, J.F. and Gladman, D.D. (2005). Reporting of mortality in a psoriatic arthritis clinic is primarily a function of the number of clinic contacts and not disease severity. *Journal of Rheumatology*, 32, 2364-2367.

99. Sankaran, P.G., Lawless, J.F., Abraham, B. and Antony, A.A. (2006). Estimation of distribution function in bivariate competing risk models. *Biometrical Journal*, *46*, 399-410.
100. Boudreau, C. and Lawless, J.F. (2006). Survival analysis based on the proportional hazards model and survey data. *Canadian Journal of Statistics*, *34*, 203-216.
101. Lawless, J.F. and Babineau, D. (2006). Models for interval censoring and simulation-based inference for lifetime distributions. *Biometrika*, *93*, 671-686. (doi: 10.1093/biomet/93.3.671)
102. Crowder, M.J. and Lawless, J.F. (2007). On a scheme for predictive maintenance. *European J. Oper. Res.*, *16*, 1713-1722. (doi: 10.1016/j.ejor.2005.10.051)
103. Yi, G.Y. and Lawless, J.F. (2007). A corrected likelihood method for the proportional hazards model with covariates subject to measurement error. *J. Statist. Plann. Inf.*, *137*, 1816-1828. (doi: 10.1016/j.jspi.2006.04.007)
104. Fredette, M. and Lawless, J.F. (2007). Finite horizon prediction of recurrent events with application to forecasts of warranty claims. *Technometrics*, *49*, 66-80.
105. Cook, R.J., Lawless, J.F., Lakhal-Chaieb, L., and Lee, K.-A. (2009). Robust methods for the analysis of recurrent events subject to event-dependent censoring and termination: application to skeletal complications in cancer metastatic to bone. *J. Amer. Statist. Assoc.*, *104*, 60-75. (doi: 10.1198/jasa.2009.0004)
106. Zhao, Y., Lawless, J.F. and McLeish, D.L. (2009). Likelihood methods for parametric regression models with missing covariates or responses. *Biometrical Journal*, *51*, 1-14.
107. Lawless, J.F., Crowder, M.J., and Lee, K.-A. (2009). Analysis of reliability and warranty claims in products with age and usage scales. *Technometrics*, *51*, 14-24.
108. Lawless, J.F. and Yuan, Y. (2010). Estimation of prediction error for survival models. *Statistics in Medicine*, *16*, 262-274. (doi: 10.1002/sim.3278)
109. Lawless, J.F. and Crowder, M.J. (2010). Models and estimation for systems with recurrent events and usage processes. *Lifetime Data Analysis*, *16*, 547-570. (doi: 10.1007/s10985-010-9157-x)
110. Cook, R.J., Lawless, J.F. and Lee, K.-A. (2010). A copula-based mixed Poisson model for bivariate recurrent events under event-dependent censoring. *Statistics in Medicine*, *29*, 694-704. (doi: 10.1002/sim3830)
111. Yilmaz, Y.E. and Lawless, J.F. (2011). Likelihood ratio procedures and tests of fit in parametric and semiparametric copula models with censored data. *Lifetime Data Analysis*, *17*, 386-408. (doi: 10.1007/s10985-011-9192-2)
112. Lawless, J.F. and Yilmaz, Y.E. (2011). Comparison of semiparametric maximum likelihood estimation and two stage semiparametric estimation in copula models. *Computational Statistics and Data Analysis*, *55*, 2446-2455. (doi: 10.1016/csda.2011.02.008)

113. Lawless, J.F. and Yilmaz, Y.E. (2011). Semiparametric estimation in copula models for sequential survival data. *Biometrical Journal*, 53, 779-796 (doi: 10.1002/bimj.20100131)
114. Hadjucek, D. M. and Lawless, J.F. (2012). Duration analysis in longitudinal studies with intermittent observation times and losses to followup. *Canadian J. Statistics*, 40, 1-21. (doi: 10.1002/cjs.10139)
115. Lawless, J.F., Cigsar, C. and Cook, R.J. (2012). Testing for trend in recurrent event processes. *Technometrics*, 54, 147-158. (doi: 10.1080/00401706.2012.676944)
116. Yi, G.Y. and Lawless, J.F. (2012). Likelihood-based and marginal inference methods for recurrent event data with covariate measurement error. *Canadian J. Statistics*, 40, 530-549. (doi: 10.1002/cjs.11144)
117. Lawless, J.F., Crowder, M.J. and Lee, K.-A. (2012). Monitoring warranty claims with cusums. *Technometrics*, 54, 269-278. (doi: 10.1080/00401706.2012.680373)
118. Cigsar, C. and Lawless, J.F. (2012). Assessing transient carryover effects in recurrent event processes, with application to chronic health conditions. *Annals of Applied Statistics*, 6, 1641-1663. (doi: 10.1214/12-AOAS560)
119. Zhao, Y., Lawless, J.F. and McLeish, D.L. (2012). Design and relative efficiency in two-phase studies. *J. Statistical Planning and Inference*, 142, 2953-2964. (doi: 10.1016/j.jspi.2012.04.013)
120. Derkach, A. Lawless, J.F. and Sun, L. (2013). Robust and powerful tests for rare variants using Fisher's method to combine evidence of association from two or more complementary tests. *Genetic Epidemiology*, 37, 110-121. (doi: 10.1002/gepi.21689)
121. Cook, R.J. and Lawless, J.F. (2013). Concepts and assessment of trend in recurrent event processes. *J. Iranian Statistical Society, Special Issue on Recurrent Events*, 12, 35-69.
122. Hadjucek, D.M. and Lawless, J.F. (2013). Estimation of finite population duration distributions from longitudinal survey panels with intermittent followup. *Lifetime Data Analysis*, 19, 371-392. (doi: 10.1007/s10985-012-9241-5)
123. Lawless, J.F. (2013). Armitage Lecture 2011: The design and analysis of life history studies. *Statistics in Medicine*, 32, 2155-2172. (doi: 10.1002/sim.5754)
124. Cook, R.J. and Lawless, J.F. (2014). Statistical issues in modeling chronic disease in cohort studies. *Statistics in Biosciences*, 6, 127-161. (doi: 10.1007/s12561-013-9087-8)
125. Yilmaz, Y.E., Lawless, J.F., Andrulis, I.L. and Bull, S.B. (2014). Insights from mixture cure modeling of molecular markers for prognosis in breast cancer. *J. Clinical Oncology*, 31, 2047-2054. (doi: 10.1200/JCO.2012.46.6615)
126. Derkach, A., Lawless, J.F., Merico, D., Paterson, A. and Sun, L. (2014). Evaluation of gene-based association tests for analyzing rare variants using Genetic Analysis Workshop 18 data. *BMC Proceedings*, 8 (Suppl 1): S9. (doi: 10.1186/1753-6561-8-S1-S9)

127. Derkach, A., Lawless, J.F. and Sun, L. (2014). Pooled association tests for rare variants: a review and some new results. *Statistical Science*, 29, 302-321. (doi: 10.1214/13-STS456)
128. Lawless, J.F. and Nazeri Rad, N. (2015). Estimation and assessment of Markov models with intermittent observations on individuals. *Lifetime Data Analysis*, 21, 160-179. (doi: 10.1007/s10985-014-9310-z)
129. Derkach, A., Lawless, J.F. and Sun, L. (2015). Score tests for association under response-dependent sampling designs for expensive covariates. *Biometrika*, 102, 988-994. (doi: 10.1093/biomet/asv038)
130. Nazeri Rad, N. and Lawless, J.F. (2017). Estimation of state occupancy probabilities in multistate models with dependent intermittent observation, with application to HIV viral rebounds. *Statistics in Medicine*, 36, 1256-1271 (doi: 10.1002/sim.7189).
131. Zhu, Y., Lawless, J.F. and Cotton, C.A. (2017). Estimation of parametric failure time distributions based on interval-censored data with irregular dependent follow-up. *Statistics in Medicine*, 36, 1548-1567 (doi: 10.1002/sim.7234).
132. Lawless, J.F. (2018). Two-phase outcome-dependent studies for failure times and testing for effects of expensive covariates. *Lifetime Data Analysis*, 24, 28-44 (doi: 10.1007/s10985-016-9386-8).
133. Zhu, Y., Lawless, J.F. and Cotton, C.A. (2018). Nonparametric analysis of dependently interval-censored failure time data. *Statistics in Medicine*, 37, 3091-3105 (doi: 10.1002/sim.7805).
134. Han, P. and Lawless, J.F. (2019). Empirical likelihood estimation using auxiliary summary information with different covariate distributions. *Statistica Sinica*, 29, 1321-1342 (doi: 10.5705/ss.202017.0308).
135. Lawless, J.F. and Cook, R.J. (2019). A new perspective on loss to followup in failure time and life history studies. *Statistics in Medicine* 38, 4583-4610 (doi: 10.1002/sim.8318).
136. Che, M., Han, P. and Lawless, J.F. (2020). Improving estimation efficiency for regression with MNAR covariates. *Biometrics* 96, 270-280 (doi: 10.1111/biom.13131).
137. Cook, R.J. and Lawless, J.F. (2020). Failure time studies with intermittent observation and loss to followup. *Scandinavian Journal of Statistics*, 47(4), 1035-1063 (doi: 10.1111/sjos.12471).
138. Lin, Y-C., Brooks, J.D., Bull, S.B., Gagnon, F., Greenwood, C.M.T., Hung, R.J., Lawless, J.F., Paterson, A., Sun, L. and Strug, L. (2020). On statistical power for case-control host genetic studies of COVID-19. *Genome Medicine*, 12:115 (doi: 10.1186/513073-020-00818-2).
139. Soave, D., Lawless, J.F. and Awadalla, P. (2021). Score tests for scale effects, with application to genomic analysis. *Statistics in Medicine*, 40(16), 3808-3822 (doi: 10.1002/sim.9000).

140. Che, M., Lawless, J.F. and Han, P. (2021). Empirical and conditional likelihoods for two-phase studies. *Canadian Journal of Statistics*, 49(2), 344-361 (doi: 10.1002/cjs.11566).
141. Cook, R.J. and Lawless, J.F. (2021). Independence conditions and the analysis of life history studies with intermittent observation. *Biostatistics*, 22(3), 455-481 (doi: 10.1093/biostatistics/kxz047).
142. Lawless, J.F. and Yan, P. (2021). On testing for infections during epidemics, with application to Covid-19 in Ontario, Canada. *Infectious Disease Modelling*, 6, 930-941 (doi: 10.1016/j.idm.2021.07.003).
143. Zhu, Y., Chen, Z. and Lawless, J.F. (2022). Semiparametric analysis of interval-censored failure time data with outcome-dependent observation schemes. *Scandinavian Journal of Statistics*, 49(1), 236-264 (doi: 10.1111/sjos.12511)
144. Cook, R.J. and Lawless, J.F. (2022). Life history analysis: a review and some current issues. *Canadian Journal of Statistics*, 50 (4), 1270-1298. (doi: 10.1002/cjs.11711)
145. Cook, R.J., Lawless, J.F. and Xie, B. (2022). Marker-dependent observation and carry-forward of time-dependent covariates in Cox regression. *Lifetime Data Analysis*, 28, 560-584.
146. Che, M., Han, P. and Lawless, J.F. (2023). Improving estimation efficiency for two-phase outcome-dependent sampling studies. *Electronic Journal of Statistics*, 17, 1043-1073.
147. Soave, D. and Lawless, J.F. (2023). Regularized regression for two phase failure time studies. *Computational Statistics and Data Analysis* 182: 107703, 1-10. (doi: 10.1016/j.csda.2023.107703)
148. Buhler, A., Cook, R.J. and Lawless, J.F. (2023). Multistate models as a framework for estimand specification in clinical trials of complex processes. *Statistics in Medicine*, 42 (9), 1368-1397.
149. Yoo, S., Garg, E., Elliott, L.E., Hung, R.J., Halevy, A.R., Brooks, J.D., Bull, S.B., Gagnon, F., Greenwood, C.M.T., Lawless, J.F., Paterson, A.D., Sun, L., The HostSeq collaborators and Strug, L. (2023). HostSeq: A Canadian whole genome sequencing and clinical data resource. *BMC Genomic Data*, 24:26. (doi: 10.1186/s12863-023-01128-3)
150. Cook, R.J. and Lawless, J.F. (2023). Statistical and scientific considerations concerning the interpretation, replicability and transportability of research findings. *Journal of Rheumatology*, 51 (2), 117-129 (doi: 10.3899/jrheum.2023-0499).
151. Buhler, A., Cook, R.J. and Lawless, J.F. (2024). Estimands and cumulative incidence function regression in clinical trials: some new results on interpretability and robustness. *Statistics in Medicine*, 43 (29), 5513-5533 (doi: 10.1002/sim.10236).

152. Garg, E., et al. (2024). Canadian COVID-19 host genetics cohort replicates known severity associations. *PloS Genetics* 20(3): e1011192 (doi:10.1371/journal.pgen.1011192).
153. Cook, R.J. and Lawless, J.F. (2024). Estimands in clinical trials of complex disease processes. *Clinical Trials*, 21 (5), 604–611 (doi: 10.1177/17407745241268054).
154. Cook, R.J. and Lawless, J.F. (2025). Selection processes, transportability and failure time analysis in life history studies. *Biostatistics*, 26 (1) (doi: 10.1093/biostatistics/kxae039).
155. Cook, R.J. and Lawless, J.F. (2025). Methodological challenges in studying disease processes using observational cohort data. *Japanese Journal of Statistics and Data Science*, 8 (1), 323–345. (doi: 10.1007/s42081-024-00276-9).
156. Buhler, A., Cook, R.J. and Lawless, J.F. (2025). Specification of estimands for complex disease processes using multistate models and utility functions. *Statistics in Medicine*, online 14 October, 2025. 44 (23-24), e70269. (doi:10.1002/sim.70269).
157. Zhang, Z., Lawless, J.F., Paterson, A.D. and Sun, L. (2025). Detecting latent interaction effects when analyzing binary traits. *PLoS Genetics*, online 22 August 2025. (doi: 10.1371/journal.pgen.1011822).
158. Cook, R.J., Lawless, J.F. and Zou, L. (2025). The use of real-world data for studies of dynamic disease processes. *Journal of Rheumatology*, online 15 December 2025. (doi: 10.3899/jrheum.2025-0160).

CONTRIBUTIONS TO BOOKS

1. Lawless, J.F. and Singhal, K. (1987). Regression Methods and the Exploration of Large Medical Data Bases. In *Joshi Festschrift Volume, Biostatistics*, pp. 1-22 (eds. I.B. MacNeill and G. Umphrey). D. Reidel, Boston.
2. Lawless, J.F. (1987). Reliability, Nonparametric Methods. In *Encyclopedia of the Statistical Sciences*, Vol. 8, pp. 20-24. Eds. N.L. Johnson and S. Kotz. John Wiley and Sons, New York.
3. Lawless, J.F., and Sun, J. (1992). A Comprehensive Back-Calculation Framework for the Estimation and Prediction of AIDS Cases. In *AIDS Epidemiology: Methodological Issues*, 81-104. K. Dietz, V. Farewell and N.P. Jewell, eds. Boston: Birkhäuser.
4. Lawless, J.F. and Kalbfleisch, J.D. (1992). Some Issues in the Collection and Analysis of Field Reliability Data. In *Survival Analysis: State of the Art*, eds. J. P. Klein and P. Goel, 141-152, Amsterdam: Kluwer.

5. Lawless, J.F. and Yan, P. (1993). Some Statistical Methods for Followup Studies of Disease with Intermittent Monitoring. *Multiple Comparisons in Biostatistics: Current Research in the Topics of C.W. Dunnett*, pp. 427-446, ed. F.M. Hoppe. New York: Marcel Dekker.
6. Kalbfleisch, J.D. and Lawless, J.F. (1995). Statistical Analysis of Warranty Claims Data. In *Warranty Analysis Handbook*, pages 231-259, eds. W. Blischke and D.N.P. Murthy. New York: Marcel Dekker.
7. Lawless, J.F. (1997). Parametric Models in Survival Analysis. In *Encyclopedia of Biostatistics*, pp. 3254-3266, editors P. Armitage and T. Colton, Chichester: Wiley.
8. Lawless, J.F. (1997). Analysis of Repeated Events. In *Encyclopedia of Biostatistics*, pp. 3783-3786, editors P. Armitage and T. Colton. Chichester: Wiley.
9. Lawless, J.F. (2003). Event history analysis and longitudinal surveys. Ch. 15 in book *Analysis of Survey Data*, eds. R.L. Chambers and C.J. Skinner. John Wiley and Sons, Chichester, pp. 221-243.
10. Lawless, J.F. (2003). Analysis of Repeated Events. In *Encyclopedia of Biostatistics*, 2nd edition, Editors P. Armitage and T. Colton, John Wiley and Sons, Chichester.
11. Lawless, J.F. (2004). Censored distributions. In *Encyclopedia of Actuarial Science*. John Wiley and Sons, Chichester.
12. Lawless, J.F. (2004). Truncated distributions. In *Encyclopedia of Actuarial Science*. John Wiley and Sons, Chichester.
13. Cook, R.J. and Lawless, J.F. (2015). Event History Analysis. In *International Encyclopedia of the Social and Behavioral Sciences, second edition, vol.8*, 295-304. Elsevier, Oxford.
14. Cook, R.J. and Lawless, J.F. (2017). Analysis of Chronic Disease Processes Based on Cohort and Registry Data. In *Mathematical and Statistical Applications in Life Sciences and Engineering*, eds. A. Adhikari, M.R. Adhikari and Y.P. Chaubey. Springer Nature Singapore Pte. Ltd., Singapore. (doi: 10.1007/978-981-10-5370-215)
15. Cook, R.J. and Lawless, J.F. (2022). Modelling and Analysis of Chronic Disease Processes under Intermittent Observation. In *Emerging Topics in Modelling Interval-Censored Survival Data*, 195–219. Editors J. Sun, D-G Chen. Springer, New York.

INVITED PAPERS IN CONFERENCE PROCEEDINGS

1. Lawless, J.F. (1971). Pairwise Balanced Designs and the Construction of Certain Combinatorial Systems, *Proc. 2nd Louisiana Conference on Graph Theory and Combinatorics*, 353-366.

2. Lawless, J.F. and Stone, G.C. (1978). Weibull Statistical Analysis of Aging Tests on Solid Electrical Insulation, in *Proceedings IEEE International Symposium on Electrical Insulation*.
3. Kalbfleisch, J.D. and Lawless, J.F. (1982). Estimation with Panel and Aggregate Data from a Markov Process. *Proc. 11th International Biometric Conference*, Toulouse, September 6-11, 1982.
4. Kalbfleisch, J.D., Lawless, J.F. and MacKay, R.J. (1982). The Estimation of Small Probabilities and Risk Assessment. In *Technological Risk: Proceedings of a Symposium on Risk in New Technologies*, 17-26, ed. N.C. Lind Waterloo: University of Waterloo Press.
5. Lawless, J.F. (1984). Some Problems Concerning Experimental Designs for Extrapolation. In *Topics in Applied Statistics*, ed. T.D. Dwivedi. Concordia University Press, Montreal, pp. 357-366.
6. Kalbfleisch, J.D. and Lawless, J.F. (1989). Some Statistical Methods for Panel Life History Data. *Proceedings of the Statistics Canada Symposium on the Analysis of Data in Time*, 185-192, eds. A. Singh and P. Whitridge. Ottawa: Statistics Canada.
7. Lawless, J.F. (1994). Some Issues in the Analysis of Recurrent Events in Longitudinal Studies. *Proceedings of CIMAT Conference on Biostatistics and Statistical Inference*, pp. 97-119, ed. D.A. Sprott.
8. Lawless, J.F. (1994). Some issues in production process reliability. *Proceedings of the International Conference on Statistics in Industry, Science and Technology*, pp. 1-7. Tokyo, Japan, July 11-13, 1994.
9. Lawless, J.F., Nadeau, C. and Cook, R.J. (1997). Analysis of Mean and Rate Functions for Recurrent Events. *Proceedings of the 1st Seattle Symposium in Biostatistics: Survival Analysis*, pp 37-50. D. Y. Lin and T.R. Fleming, eds. New York: Springer.
10. Lawless, J.F. (1997). Likelihood and pseudo likelihood estimation based on response-biased observation. In *Selected Proceedings of the Symposium on Estimating Functions*, pp. 43-55, eds. I.P. Basawa, V.P. Godambe, and R.L. Taylor. Hayward, CA:IMS.
11. Lawless, J.F. (1997). Scientific evidence and uncertainty in public enquiry. *Statistics, Science and Public Policy*. Proceedings of the *Conference on Statistics, Science and Public Policy*, 95-100. Editors A.M. Herzberg and I. Krupka. Queens University, Kingston.
12. Lawless, J.F. (2000). Dynamic analysis of failures in repairable systems and software. In *Recent Advances in Reliability Theory*, pp. 341-351. N. Limnios and M. Nikulin, eds. Boston: Birkhäuser.
13. Boudreau, C. and Lawless, J.F. (2003). Survival analysis based on survey data. *Proceedings of International Conference on Research Advances in Survey Sampling*. Carleton University, Ottawa.

14. Lawless, J.F. and Boudreau, C. (2003). Modelling and Analysis of Duration Data from Longitudinal Surveys. Proceedings of *Statistics Canada Symposium 2002: Modelling Survey Data for Social and Economic Research*.
15. Lawless, J.F. (2003). Censoring and weighting in survival estimation from survey data. *Proceedings of the Survey Methods Section, Statistical Society of Canada 2003 Annual Meeting*.
16. Lawless, J.F. and Mariaca Hajducek, D. (2010). Modelling and analysis of durations based on longitudinal survey data. Proceedings of *Statistics Canada Symposium 2009: Longitudinal Surveys, from Design to Analysis*.
17. Derkach, A., Lawless, J.F., Merico, D., Paterson, A.D. and Sun, L. (2014). Evaluation of gene-based association tests for analyzing rare variants using Genetic Analysis Workshop 18 data. *BMC Proceedings* 8 (Suppl. 1), S9.
18. Lawless, J.F. (2015). Statistics, Science and Technology. *Proceedings of the Ninth International Conference on Mathematical Methods in Reliability*, Tokyo, Japan.

INVITED DISCUSSIONS

1. Lawless, J.F. (1977). Discussion of “Asymptotically Optimum Over-Stress Tests to Estimate the Survival Probability at a Condition With a Low Expected Failure Probability”, *Technometrics* 19, 401-4.
2. Lawless, J.F. (1981). Discussion of “A Bayesian Analysis of the Linear Calibration Problem”, by W.G. Hunter and W. Lamboy, *Technometrics* 23, 334-35.
3. Lawless, J.F. (1983). Discussion of “Dose Response Models for Time to Response Toxicity Data”, by Kalbfleisch, Krewski and Van Ryzin. *Canad. J. Statist.*, 11, 48-9.
4. Kalbfleisch, J.D. and Lawless, J.F. (1988). Discussion of Royal Statistical Society Meeting on AIDS. *J. Royal Statist. Soc. A* 151, 47-8.
5. Lawless, J.F. (1989). Discussion of “Practical Problems in Reliability Data Analysis”, by Ansell and Phillips. *Applied Statistics* 38, 236-237.
6. Dean, C. and Lawless, J.F. (1989). Discussion of “An Extension of Quasi-Likelihood Estimation”, by Godambe and Thompson. *J. Statist. Plan. Inf.* 22, 155-58.
7. Lawless, J.F. (1996). Discussion of “Markov Chains with Measurement Error: Estimating the ‘True’ Course of a Marker of the Progression of HIV Disease”, by Satten and Longini. *Applied Statistics*, 45, 299-300.
8. Cook, R.J. and Lawless, J.F. (1997). Discussion of “Survival Analysis for Multiple Outcomes”, by Wei and Glidden. *Statistics in Medicine*, 16, 841-843.

9. Lawless, J.F. (1998). Discussion of “Bayesian projection of the acquired immune deficiency syndrome epidemic”, by De Angelis, Gilks and Day. *Applied Statistics* 47, 491.
10. Cook, R.J. and Lawless, J.F. (2007). Discussion of “Analysis of Longitudinal Data with Drop-out: Objectives, Assumptions and a Proposal”, by Diggle et al., *Applied Statistics*, 56, 539-40.
11. Lawless, J.F. (2010) Discussion of papers by Olteanu and Freeman and by Genschel and Meeker. *Quality Engineering*, 22, 278-280. (doi: 10.1080/08982112.2010.503553)
12. Lawless, J.F. and Kalbfleisch, J.D. (2011). Discussion of “Connections between survey calibration estimators and semiparametric models for incomplete data”, by Lumley, Shaw and Dai. *Int. Statist. Rev.*, 79, 225-228.
13. Lawless, J.F. (2013). Discussion of “More pitfalls of accelerated tests”, by Meeker, Sarakakis and Gerokostopoulos. *J. Quality Technology*, 45, 232.
14. Han, P. and Lawless, J.F. (2016). Discussion of “Constrained maximum likelihood estimation for model calibration using summary-level information from external big data sources”, by Chatterjee, Chen, Maas and Carroll. *Journal of the American Statistical Association* 111, 118-121 (doi: 10.1080/01621459.2016.1149399).
15. Wild, C.J. (2016). A Conversation with Jack Kalbfleisch and Jerry Lawless. *International Statistical Review* 84, 2-25 (doi: 10.1111/insr.12106).
16. Lawless, J.F. (2019). Contribution to panel discussion on “Is reliability a new science?”. *Applied Stochastic Models in Business and Industry*, 35, 272-273.
17. Lawless, J.F. (2019). Comments on Models as Approximations, Parts I and II, by Buja et al. *Statistical Science*, 34, 569-571.
18. Lawless, J.F. (2022). Discussion of “A selective review of statistical methods using calibration information from similar studies” and some remarks on data integration. *Statistical Theory and Related Fields*, 6 (3), 191–2. (doi: 10.1080/24754269.2022.2075083)

PAPERS SUBMITTED, MANUSCRIPTS

1. Cook, R.J., Lawless, J.F. and Zou, L. (2025) Selection conditions, collider bias and mediation effects in rheumatology. Manuscript
2. Cook, R.J., Lawless, J.F. and Zou, L. (2025) Assessing the effects of interventions in life history processes using observational data. Manuscript
3. Buhler, A., Cook, R.J. and Lawless, J.F. (2026). Model misspecification and interpretability of estimands based on mean function regression for recurrent and terminal events. Manuscript.

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