

McMASTER UNIVERSITY
GRADUATE PROGRAM IN STATISTICS

STATISTICS SEMINAR

Speaker: Jerry Lawless
Department of Statistics and Actuarial Science
University of Waterloo

Title: Regression Analysis of Recurrent Event Data
Day: Tuesday, January 22, 2008

Time: 3:30 - 4:30 PM

Place: HH/217 - Deloitte Colloquium Room
(refreshments in HH/216 at 3:00 PM)

SUMMARY

This talk will review methods for data on recurrent events. We begin with examples where it is important to determine the relationship of recurrent events to fixed covariates, treatments, or time-varying factors. After a review of ways in which covariates can be incorporated in an analysis, we will focus on some important models and methodology. Robust methods for the analysis of rate of occurrence and mean functions will be described and illustrated on data arising in both industrial and medical contexts. The analyses considered can be carried out using standard software, and an example of how to do this with SAS or Splus/R will be provided. Finally, some extensions to the methodology and areas needing development will be discussed.

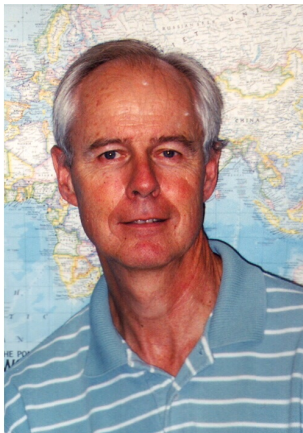
REFERENCES

- Lawless, J.F. (2003) Analysis of Repeated Events. In Encyclopedia of Biostatistics, 2nd edition. Editors P. Armitage and T. Colton, Chichester: Wiley

Cook, R.J. and Lawless, J.F. (2002) Analysis of repeated events. *Statistical Methods in Medical Research* 11, 141-166.

Cook, R. J. and Lawless, J.F. (2007) *The Statistical Analysis of Recurrent Events*, Springer, New York.

ABOUT THE SPEAKER



Jerry Lawless is Professor Emeritus in the Department of Statistics and Actuarial Science at the University of Waterloo. He received his Ph.D. from the University of Waterloo in 1969 and was a faculty member there from 1972-2007, serving as Department Chair from 1979-84, and in 1987-88 and 2004-05. His research interests include biostatistics, survival and event history analysis, reliability, and regression methodology. He is the author of numerous papers and the books *Statistical Models and Methods for Lifetime Data* (John Wiley and Sons, 1982; second ed. 2003) and *The Statistical Analysis of Recurrent Events* (with R.J. Cook, Springer, 2007).

Prof. Lawless has been a consultant to industry and government, is a past Editor of *Technometrics* and a past President of the Statistical Society of Canada. He is a Fellow of the American Statistical Association (1983) and of the Institute of Mathematical Statistics (1990), and a recipient of the Gold Medal of the Statistical Society of Canada (1999). He was elected a Fellow of the Royal Society of Canada in 2000.

MORE SEMINAR INFORMATION

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