

Multivariate Failure Time Analysis

Jerry Lawless
University of Waterloo
Waterloo, Ontario

Abstract

A brief review of multivariate failure time distributions will be given, emphasizing the distinction between so-called marginal models and models arising from conditional random effects specifications. Approaches to regression analysis will be considered, based on extensions of Cox proportional hazards models and of accelerated failure time (log-location- scale) models to the multivariate setting. The pros and cons of different parametric and semiparametric approaches will be discussed and illustrated. Areas needing further development will be identified.