

Robust Multi-State Analysis of Recurrent Event Data

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Abstract

Recurrent event data arise frequently in public health, social, and industrial research. While intensity-based and random effect models are often appealing when fully specified models are desirable, robust methods based on rate and mean functions are frequently of interest. In this talk we discuss robust methods for the analysis of recurrent event data based on partially conditional models motivated by a multi-state framework. Estimation of mean functions based on this approach are shown to account for between subject heterogeneity and offer protection against adaptive censoring. Results from simulation studies support this position and various approaches are compared through application to data sets from clinical trials.

This talk is based on joint work with *Jerry Lawless and Lajmi Lakhal*.