STATISTICS 890-4

Statistics: Selected Topics:
(Analysis of Life History Data)

Course Outline

1.   Introduction.
Examples of longitudinal and life history data; review of stochastic models; finite state Markov processes; renewal and Markov renewal processes; point processes and counting processes; regression models.

2.   Multistate models and prospective cohort data.
Markov chains. Estimation, tests and model checks, regression models. Multivariate counting processes,

3.   Other types of longitudinal studies.
Point process models and extensions: event and count data. Time series with discrete response. Categorical or correlated discrete response models. Model-based and estimating equation approaches.

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