Title: Estimating Survival Functions In Koziol-Green Models

Abstract:

In Koziol-Green (KG) model, the hazard of
censoring time is assumed to be proportional to that of
survival time. One of the approaches on estimating the
survival function in the literature is the so-called
Abdushukurov-Cheng-Lin (ACL) estimation. In this
presentation, the generalized maximum likelihood method
(GMLE) will be introduced and the small and large sample
properties of GMLE comparing with ACL and Kaplan-Meier (KM)
estimators will be explored. Furthermore, the asymptotic
efficiency of GMLE and ACL estimators and the generalization
of KG model will be discussed. The main results from our
recent research can be summarized as follow. 1) In both
small and large samples, GMLE and ACL estimators always
outperform KM estimator; 2) GMLE and ACL estimators are
asymptotically equivalent; 3) They are asymptotically
efficient in the sense of being the least dispersed regular
estimators.