research colloquium

A consistent estimation of the accelerated failure time model with measurement errors

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時　間：101 年 4 月 27 日(五) 2：30 pm

地　點：統計所多媒體教室（理 320 室）

茶　會：下午 2：00 於統計所辦公室(理學院 325 室)

摘　要：

The accelerated failure time model is an attractive alternative to the Cox proportional hazard model. In the accelerated failure mode, the covariate was modeling to expand or contract a life time. It may be more intuitive than the Cox proportional hazard model in interpretation. However, when covariate is subject to measurement error, much less estimation methods had been found for the accelerated failure time model. In this talk, we consider the estimation using ranks in the accelerated failure time model when covariates are subject to measurement errors. The proposed estimation requires no distribution assumption on the unobserved true covariate and was shown to be consistent when there are replicates. For the case of no replicates, A recently developed computation technique named "error-augmentation" was introduced to "create" replicates so that the proposed estimation was applicable again. The performance of the proposed estimation was evaluated by a simulation study.