Sequential Estimation in Logistic Measurement Error Models

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Measurement errors in covariates are very common in practice, and it is known that the naive maximum likelihood estimates will be asymptotically biased due to error in covariates. When some prior information about the parameter space is available, the truncated estimate can be used. In this talk, we apply measurement error model techniques and adaptive sequential methodology to deal with the measurement error problem in logistic models. Under some moment criterions on the designs, we prove the strong consistency of the estimate. Simulation studies also show that our result is efficient in terms of the size of designs and is much accurate with previous estimates.

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