

GRADUATE SEMINAR

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Model Selection for Longitudinal Data: Root Mass Study

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Math Lounge (CW307.20)

Abstract: The generalized estimating equation (GEE) approach is a widely used statistical method in the analysis of longitudinal data. It is an extension of the generalized linear model (GLM) method to correlated data. Unlike the GLM method, which is based on the maximum likelihood theory for independent observations, the GEE method is based on the quasi-likelihood theory and no assumption is made about the distribution of response variable. Therefore, Akaike information criterion (AIC), a widely used method for model selection in GLM is not applicable to GEE directly. Pan (2001) proposed model selection method for GEE called quasi-likelihood under the independence model criterion (QIC). This criterion can be used to select the best-working correlation structure. In this seminar, I demonstrate how to use QIC to select the best working correlation structure through real data example called root mass study.