RANK-BASED REGRESSION FOR ANALYSIS OF REPEATED MEASURES

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We consider rank-based regression models for repeated measures. To account for possible within-subject correlations, we decompose the total ranks into between- and within-subject ranks and obtain two different estimators based on between- and within- subject ranks. A simple perturbation method is then introduced to generate bootstrap replicates of the estimating functions and the parameter estimates. This provides a convenient way for combining the corresponding two types of estimating function for more efficient estimation.