1117-62-182 Danush K Wijekularathna* (dwijekularathna@troy.edu), Mathematics Department, Troy University, Troy, AL 36082, and Hossein Mansouri (hossein.mansouri@ttu.edu), Dept. of Mathematics, Texas Tech University, Lubbock, TX 79409. Rank Procedures for Testing Sub Hypotheses in Repeated Measures Design.

The term repeated-measures refers to an experiment that collects multiple measurements from each subject. Repeated measures data has its own challenges. Since we repeatedly take the same type of measurement across time on the subjects, data are not independent. So the major problem of this model is covariance structure among these repeated measurements and we must account for the dependency in data using more complex or complicated statistical methods. Often it is of interest to test hypotheses concerning the parameters of a linear model for such data. The problem of testing linear hypothesis in linear models based on rank statistics has received a considerable interest in statistical literature as a result of its robustness against outliers. Several tests based on ranks are also available. In this presentation, a class of rank tests for testing linear hypotheses for parameters of a linear model for repeated measures data will be formulated. Some results on small sample properties of the rank tests will also be presented and compared them with their parametric competitors. (Received January 13, 2016)