Package ‘ClusterRankTest’

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Type Package
Title Rank Tests for Clustered Data
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Description Nonparametric rank based tests (rank-sum tests and signed-rank tests) for clustered data, especially useful for clusters having informative cluster size and intra-cluster group size.
License GPL-2 | GPL-3
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R topics documented:

ClusterRankTest-package .......................................................... 1
clus.rank.sum ................................................................. 3
dataset .................................................................................. 4
print.Cluster.Test .............................................................. 4

Index

ClusterRankTest-package

Rank Tests for Clustered Data

Description

This package consists of methods that compute rank based tests for clustered data.
Details
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Description
This package consists of methods that compute rank based tests for clustered data.

Usage
clus.rank.sum(Cluster, X, grp = NULL, Y = NULL, test = c("DS", "DD", "SDS"))

Arguments
Cluster  Cluster ID
X         Outcome variable
grp       Binary group indicator variable (0 or 1) if test= "DS" or "DD"
Y         Matched outcome variable if test="SDS"
test      "DS" = Datta-Satten rank-sum test, "DD" = Dutta-Datta rank-sum test, "SDS" = Data-Satten signed rank test

Value
pvalue    P-value for the test
Test Statistic  Test statistic value for the test

References
Examples

```r
Cluster<-c(1,1,2,2,2,3,3,3)
X<-c(1,4,2,4,6,7,4,7,8)
grp<-c(0,1,0,0,1,1,0,1)
dataset <- list(Cluster,X,grp)

clus.rank.sum(Cluster, X, grp, test="DS")
```

<table>
<thead>
<tr>
<th>dataset</th>
<th>dataset</th>
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</table>

Description

The dataset has three columns. The first two columns will be 'Cluster ID' and 'X'(outcome). The third column will be either 'Group Indicator' (for rank-sum tests) or 'Y'(paired outcome for signed-rank tests).

Usage

```r
data("dataset")
```

print.Cluster.Test  Print function.

Description

Prints the p-value and the test statistic.
Index

clus.rank.sum, 3
ClusterRankTest
   (ClusterRankTest-package), 1
ClusterRankTest-package, 1
dataset, 4
print.Cluster.Test, 4