1 Program 3dKruskalWallis

1.1 Purpose

Program 3dKruskalWallis was developed for comparing multiple treatments. This program performs the nonparametric Kruskal-Wallis test for whether any of s treatments are different. Output includes the index of the best (highest ranking) treatment, as well as the Kruskal-Wallis chi-square statistic, for each voxel.

The Kruskal-Wallis test is the nonparametric counterpart of the one-way ANOVA. As such, program 3dKruskalWallis roughly corresponds to program 3dANOVA, which may be used to compare multiple treatments, assuming that the underlying populations are normally distributed with equal variances.

1.2 Further Details

For further details, see Section 3 of *Nonparametric Statistical Analysis of FMRI Data*, contained in file Nonparametric.ps.