

## **Comparison sequences for visualization: applications and algorithms**

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### **Abstract**

Visualization methods are important in the exploration, analysis and presentation of data. A carefully chosen graphic creates a visual impression of the overall behaviour of a dataset or a model fit. At a detail level, comparisons are important, that is, comparisons between variables, cases, groups, clusters or models. We present algorithms which construct sequences of all pairwise comparisons, and visit more interesting comparisons first. These sequences are in fact edge traversals of weighted graphs, based on eulerian tours and hamiltonian decompositions. Applications range from a new display for pairwise comparison of treatment groups, to a guided parallel coordinate display and on to a road map for dynamic scatterplots.

This is joint work with R.W. Oldford.