

Dissimilarity-Based Coloring for Symbolic and Multivariate Data Visualization

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Abstract : In this paper, we propose a coloring method for multivariate data visualization by using parallel coordinates based on dissimilarity and tree structure information gathered during hierarchical clustering. The proposed method is an extension for proximity-based coloring that suffers from a few undesired side effects if hierarchical tree structure is not balanced tree. We describe the algorithm by assigning colors based on dissimilarity information, show the application of proposed method on three commonly used datasets, and compare the results with proximity-based coloring. We found our proposed method to be especially beneficial for symbolic data visualization where many individual objects have already been aggregated into a single symbolic object.

Keywords : data visualization, dissimilarity-based coloring, proximity-based coloring, symbolic data

Conference Title : ICDMA 2018 : International Conference on Data Mining and Applications

Conference Location : Tokyo, Japan

Conference Dates : September 10-11, 2018