

Developing and evaluating a Cytoscape app for graph-based clustering

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Abstract

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1 Introduction

2 The Yoshiko-App for Cytoscape

2.1 Technical Details

2.2 Algorithm

2.2.1 Data Modeling

Theory The Yoshiko algorithm models the data as a complete graph $G = (V, E)$ with an associated edge-cost function $C : E \rightarrow \mathbb{R} \cup \{-\infty\} \cup \{\infty\}$. As many input instances do not describe a full graph, missing edges and costs need to be modeled. This is achieved by using default values for insertion or deletion. A default insertion cost is used whenever the input instance does not contain an edge.

Implementation The Yoshiko Wrapper provides a clean and simple interface to generate the model.