

# 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.