Introduction

Networks are ubiquitous - they model numerous complex structures and processes. In order to analyze such networks, the size of the network data must be reduced; thus, network summarization becomes important. We experimented with three methods of compression: Slice Tree, Spectral Graph Fourier, and Spectral Graph Wavelets.

We examine each method for its scalability and accuracy on real and synthetic datasets. We discover that the Slice Tree algorithm is scalable and outperforms the Spectral Graph methods when the network values change smoothly across the topology.