

DATA.STAT.770 Dimensionality Reduction and Visualization, Spring 2021, Exercise set 14

Problem H2: Kamada-Kawai algorithm versus Sammon's Mapping

The Kamada-Kawai algorithm (lecture 14) is a graph visualization algorithm that has some mathematical similarity to the Sammon's mapping dimensionality reduction method (lecture 6): both try to emphasize the importance of small distances. However, there are also several differences. Write out the cost functions of the Kamada-Kawai algorithm and Sammon's Mapping, and discuss the similarities and differences.