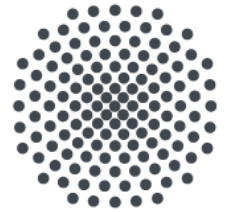


Seminar

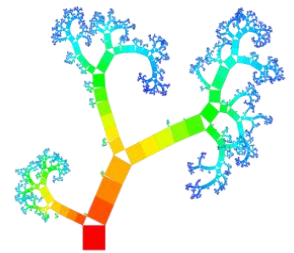
Graph and Network Visualization



Networks and Graphs are important data structures in computer science. They can be used to solve a large number of problems, such as finding shortest paths, analyzing social networks, or explaining neural networks. This seminar focuses on the visualization of graphs and networks as well as their interactive analysis. Accordingly, the goals of the seminar are the presentation and discussion of basic and advanced approaches for visualizing these kinds of data structures. Topics will include but are not limited to

Hierarchical visualization

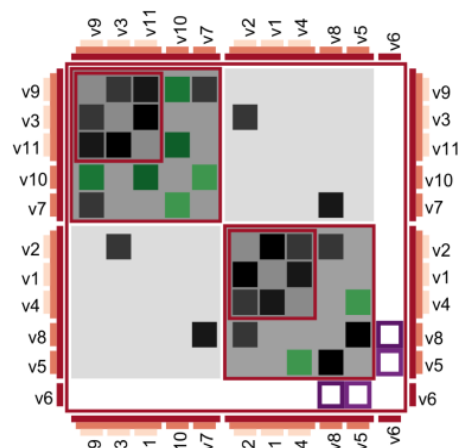
- Layout approaches for hierarchical data
- Interactive visual analysis of hierarchical data



Graph visualization

- Layout of node link diagrams
- Visual analysis of large networks
- Scalable graph visualization

<http://pythagoras.fbeck.com>



Visual comparison

- Visualization of dynamic tree and network data
- Visual comparison of graphs
- Visual aggregation of graph structures

Vehlow 2016, Visualizing Dynamic Hierarchies in Graph Sequences

Prerequisites: none

Targeted audience: Bachelor Computer Science, Bachelor Informatik, Bachelor Softwaretechnik

Language: German or English. Will be decided in first session.

Dates: The seminar will take place in the winter semester 2025. The exact dates will be published in C@MPUS. There will be no preparation meeting; topics will be assigned during the first seminar class.

Contact:

Dr. Steffen Koch

