May 20th: Invited Talk

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Integrated Views in Visualization

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Store Aud. (room 2144),
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Abstract:

Data Visualization uses computer-supported, interactive, visual representations of (abstract) data to amplify cognition. In recent years data complexity has increased tremendously. This is for example due to an increase in data size and dimensionality. New imaging modalities generate quite heterogeneous, multi-valued, multi-modal, and time-varying data. Separate views and linked views are approaches to cope with complexity, but are limited, e.g., concerning scalability.

This talk will concentrate rather on integrated views as inspired by traditional illustrations. The concept of A-space is presented. It is the “space” where visualization algorithms reside. Every visualization algorithm is a unique point in A-space. Integrated visualizations can be interpreted as an “interpolation” between known algorithms. The void between algorithms can be considered as a visualization opportunity where a new point in A-space can be reconstructed and new integrated visualizations can be created. The talk will discuss several research examples which go beyond data and image fusion and achieve what can be considered algorithm fusion.