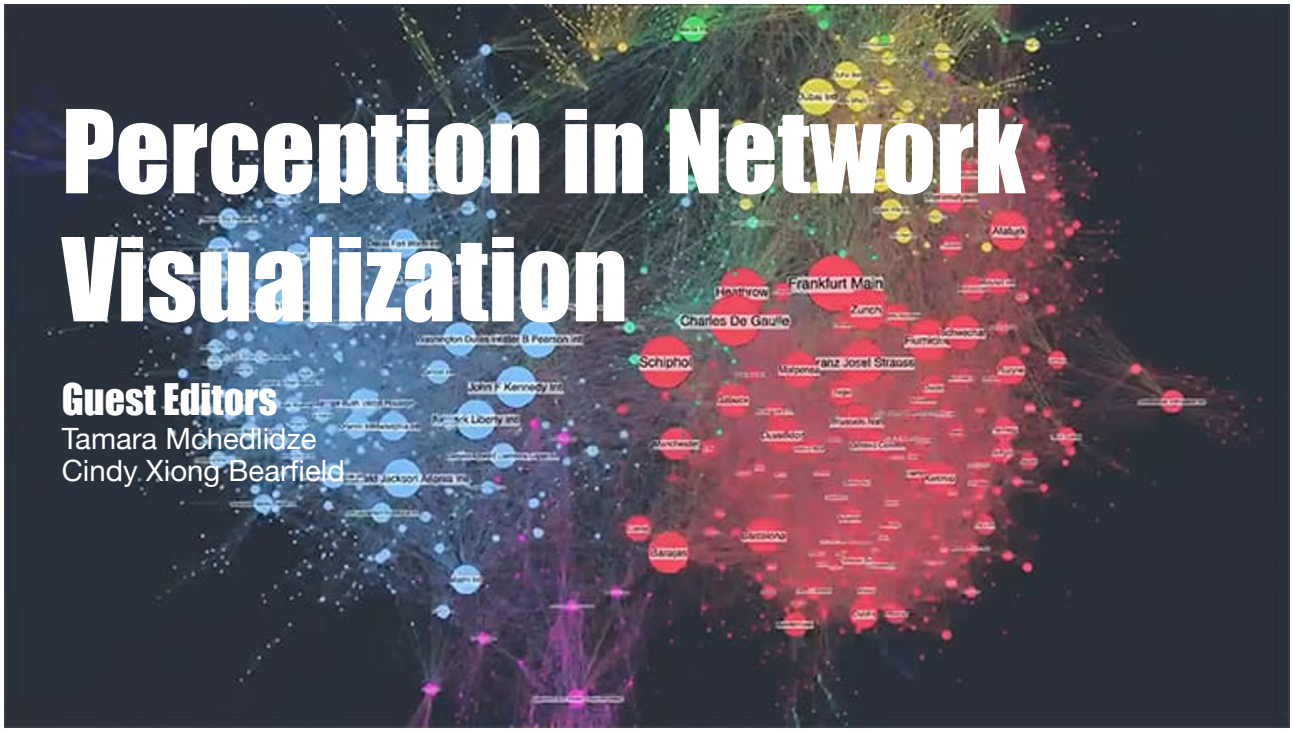


Call for Papers

Special Issue on "Perception in Network Visualization" in Journal of Perceptual Imaging (JPI)

Networks are used to model and represent a large variety of data in many application areas from life sciences to social sciences. Visual network analysis is a crucial tool to improve the understanding of data sets and processes over many levels of complexity, e.g., semantic, spatial and temporal granularity. While there is a great deal of work on the algorithmic aspects of network visualization and the computational complexity of the underlying problems, the role and limits of human perception are rarely explicitly investigated and taken into account when designing network visualizations. The special issue aims to highlight and foster interdisciplinary discussions on the perception of network visualization, emphasizing perceptual organization, user studies, and perception-aware algorithms.

Topics of Interest

Submissions are invited (but not limited to) the following areas:

- Perceptual organization and Gestalt principles in network visualization
- User studies on readability and aesthetics of network visualizations
- Perception-aware algorithms for graph drawing and network visualization
- Perception-aware quality metrics for graph drawing
- Quality metric optimization and experimental evaluations
- Use of color in network visualizations

- Perceptual aspects of visualization of complex, multilayer networks
- Perceptual aspects of visualization of temporal changes in networks

Important Dates

Optional pre-submision review: from today till August 31st, 2024, AoE

Full Paper Submission Date: September 1st, 2024, AoE (extended)

We plan to finalize all submissions within 2025.

Submission and Review

Submit complete manuscripts via https://jpi.msubmit.net/ and select the Special Issue on Perception in Network Visualization. Submitted manuscripts will be peer-reviewed by three scientific experts, and judged on their originality, quality, relevance, and clarity of presentation. For more information, review the JPI Author Guidelines. All JPI articles are published as Open Access. All special issues will be offered a reduced publication cost of $1000 per 12-page article (add $50 per page above 12 pages).

Optional Pre-submission Review

Interested authors are invited to discuss their planned submission with the Guest Editors by completing a Google Form questionnaire. Include a working title for the manuscript; the names, affiliations, and contact information for all authors; and a 100-word summary. Direct any questions to t.mtsentlintze@uu.nl and cxiong@u.northwestern.edu .

Opportunity to present

Articles published in this special issue are eligible for presentation at the 2025 Conference on Human Vision and Electronic Imaging (HVEI), and will receive a discount on conference registration fees.

*The **Journal of Perceptual Imaging** (JPI) is a multidisciplinary journal of the Society for Imaging Science and Technology. The goal is to provide a premiere archival journal that promotes research into how principles of perception and cognition support and inspire new technologies and applications, and how emerging technologies drive new questions for perceptual research. This is an open access journal; all papers are peer-reviewed by at least three experts versed in the multiple disciplines explored. Experimental, computational, theoretical, and survey papers are encouraged. JPI welcomes submissions from all areas of human perception and cognition, including haptic and multisensory perception, from all technologies that interface with humans, including art, and from all application areas.*

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