

IS&T is proud to announce the launch of a new journal at the intersection of perception and imaging:



Journal of Perceptual Imaging

Peer-reviewed • Open Access • Multidisciplinary

Publishing research in perception and cognition that supports, or is inspired by, imaging technologies and applications influenced by research in human perception, cognition, and neuroscience.

JPI springs from the IS&T **Conference on Human Vision and Electronic Imaging (HVEI)**, which has been driving the research agenda in this multidisciplinary field for 30 years.

<http://bit.ly/IST-JPI>

Scope

The *Journal of Perceptual Imaging* (JPI) focuses on the role of the human in the expanding world of imaging. We welcome research in perception, cognition, and neuroscience that supports or is inspired by emerging imaging science and technologies. We also welcome research in image analysis, representation, and visualization for real-world problems in science, medicine, business, and engineering, that is driven by perceptual, cognitive, and neuroscience research. JPI publishes experimental, theoretical, computational, and survey papers, new scientific results, algorithms, evaluation techniques, methodologies, and innovations. Topics include:

- Human vision, audition, touch, and multisensory interactions
- Color perception and applications
- Visualization and computer graphics
- Machine learning, computer vision, and artificial intelligence,
- Image and video compression, quality, and quality of experience
- Image and video analysis, synthesis, and content-based retrieval
- Texture, lighting, and material appearance
- Visual attention, eye movements, and salience
- Visual representation and interaction
- Depth, stereo, and movement
- Memory, perceptual organization, and semantics
- Computational photography
- Immersive and augmented environments
- Human decision making and problem solving
- Digital humanities
- Art, aesthetics, and emotion

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Publication Details

Submission: Original manuscripts not previously published and not currently submitted for publication elsewhere may be submitted for peer review. Prior publication does not refer to conference abstracts, paper summaries, or non-reviewed proceedings. Submissions that expand in scope and level of detail on preliminary communications published as conference papers, abstracts, or summaries are acceptable; prior work must clearly be cited in these situations.

Fast-Track Publication: Accepted papers are posted online as soon as final approval is given by the author(s) and editors. Once all the papers in an issue are finalized, the journal volume is created.

All JPI papers are **Open Access in the IS&T Digital Library** and are downloadable in their entirety for free in perpetuity, irrespective of the specific copyright chosen by authors/editors.





Journal of Perceptual Imaging

INAUGURAL ISSUE

Open Access

IS&T and the JPI editors-in-chief, Bernice Rogowitz and Thrasos Pappas, are pleased to announce that the first issue of the *Journal of Perceptual Imaging* (JPI) is now available!

As IS&T's new open-access, peer-reviewed journal that sits at the intersection of perception and imaging, JPI focuses on the role of the human in imaging and visualization systems, in a wide range of application areas. The first issue's editorial contains more on the origins of JPI.

To read for free the articles from the inaugural issue, visit <https://www.ingentaconnect.com/content/ist/jpi>.



The Field of View, the Field of Resolution, and the Field of Contrast Sensitivity

Andrew B. Watson

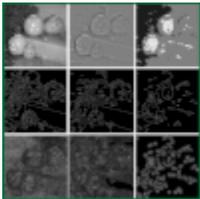
Abstract: The Field of View (FoV), the Field of Resolution, and the Field of Contrast Sensitivity describe three progressively more detailed descriptions of human spatial sensitivity at angles relative to fixation.



Light-Field Appearance Editing based on Intrinsic Decomposition

Shida Beigpour, Sumit Shekhar, Mohsen Mansouryar, Karol Myszkowski, and Hans-Peter Seidel

Abstract: The authors present a framework for image-based surface appearance editing for light-field data. Their framework improves over the state of the art without the need for a full "inverse rendering," so that full geometrical data, or presence of highly specular or reflective surfaces are not required.



The Role of Structure and Textural Information in Image Utility and Quality Assessment Tasks

Suiyi Ling, Patrick Le Callet, and Zitong Yu

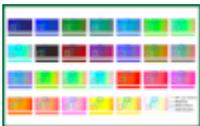
Abstract: The perceptual process of images is hierarchical. Human tends to first perceive global structural information such as shapes of objects and further focus on local regional details such as texture.



Color and Quality Enhancement of Videoconferencing Whiteboards

Carlos Andrew Arango Duque, Mekides Assefa Abebe, Muhammad Shahid, and Jon Yngve Hardeberg

Abstract: Whiteboards are commonly used as a medium of instant illustration of ideas during several activities including presentations, lectures, meetings, and related others through videoconferencing systems.



Color Matching Criteria in Augmented Reality

Lili Zhang and Michael J. Murdoch

Abstract: Augmented reality (AR) is growing in popularity, blending virtual objects into the real world, and one challenge it demands is the detailed colorimetric study.



Multiscale Daltonization in the Gradient Domain

Joschua Thomas Simon-Liedtke and Ivar Farup

Abstract: We propose a daltonization method that enhances chromatic edges and contrast for color-deficient people by optimizing the gradient of an image.

SUMBIT YOUR WORK NOW! JPI welcomes submissions for future issues: <https://jpi.msubmit.net>. Additional information about the submission and publication process is available on the JPI website on imaging.org.