

The temporal evolution of visual perception

The visual system dynamically processes input over the course of a few hundred milliseconds to generate our perceptual realities. Capturing the dynamic aspects of vision is therefore imperative to understand visual perception. Over the last few decades, a diverse set of methods and approaches has been applied to behavioral and neural data to match the temporal granularity of visual perception. These varied approaches have allowed us to uncover the intricate ways in which visual processing unfolds over time as well as to identify the temporal limits of visual processing. However, despite these advancements, many exciting questions about the nature of visual perception and its temporal dynamics remain unanswered.

The Journal of Vision invites submissions for a Special Issue on the temporal evolution of visual perception. This Special Issue welcomes empirical papers that study the dynamic aspect of vision using behavioral, neuroimaging, electrophysiological and stimulation approaches. In addition, the editors also welcome papers on methodological advances to understand the temporal evolution of vision.

Topics include, but are not limited to:

- Dynamics of visual representations
- Interaction between feedforward and feedback processing
- Temporal limits of perception
- Modeling temporal dynamics
 - Impact of experience on temporal processing
- Influence of expectation and prediction
- Representation of dynamic events
- Influence of expectation and prediction on temporal dynamics
- Temporal sampling of the environment

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Submissions accepted through January 31st, 2025. For questions regarding suitability feel free to contact lina.teichmann@nih.gov or bakerchris@mail.nih.gov. Accepted papers will be published as ready in the current monthly issue as well as presented together as a special issue on the Journal of Vision website.

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