

Call for Papers

Themed Series of APSIPA Transactions on Signal and Information Processing “Generative AI for Advanced Video Synthesis, Editing, and Enhancement”

Introduction

The rapid advancements in Generative Artificial Intelligence (GenAI) have revolutionized video synthesis, editing, and enhancement, enabling unprecedented capabilities in creating realistic, high-quality visual content. GenAI techniques are now integral to applications in entertainment, virtual reality, autonomous systems, and more, transforming how videos are produced, manipulated, and optimized. Despite these advancements, challenges remain in ensuring temporal consistency, reducing artifacts, and enhancing computational efficiency. This themed series aims to gather researchers and practitioners to present cutting-edge methodologies, theoretical insights, and practical applications of GenAI in video processing.

Topics of Interest

We invite original research articles and reviews addressing, but not limited to, the following topics:

- Novel architectures for generative video synthesis (e.g., diffusion models, autoregressive models)
- AI-driven video editing techniques, including style transfer, inpainting, and object manipulation
- Video enhancement methods such as super-resolution, denoising, and color correction
- Temporal coherence and consistency in generated video sequences
- Generative models for video compression and bandwidth optimization
- Multimodal approaches combining text, audio, and video generation
- Applications in entertainment, virtual/augmented reality, and autonomous systems
- Ethical considerations and bias mitigation in generative video models
- Benchmark datasets and evaluation metrics for generative video tasks
- Real-time video generation and computational efficiency improvements

Submission and Review Process

Each paper submitted to this series will be reviewed using the first-come-first-serve principle. The target of the first round of decision-making is 5 weeks, and the period of the first round of revision is 2 weeks. The paper will be accepted between 8-12 weeks (depending on 1 or 2 revisions). Once the submission window has closed, accepted papers ready for publication will be published online. The series will be accompanied by an editorial written by the guest editorial team. If a paper cannot be accepted within the publication window, it will be considered as a regular paper.

Important Dates

- **Submission Window:** May 1, 2025 – July 1, 2025
- **Publication Date:** September 2025

Guest Editorial Team

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Submission Guidelines

For submission guidelines, please refer to:

<https://nowpublishers.com/Journal/AuthorInstructions/SIP>

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