

Quality Assessment and Enhancement for Multimedia Visual Signals

Nowadays, multimedia visual signals, including 2D, 3D/stereopsis, virtual reality (VR), augmented reality (AR), light field, and point clouds, have become unprecedentedly popular. It has witnessed a wide range of potential applications in television, automatic driving, medical diagnosis, cultural relic protection, business marketing, transportation, gaming, and education, among many others. The development of multimedia technologies including acquisition, compression, transmission, reconstruction, and display, has made great progress, providing new ways for manufacturers and consumers to generate, use and interact with massive visual information. However, there exist many quality problems and challenges in multimedia signal processing. In this special session, the goal is to publish original research papers related to the theories, models, and algorithms about the quality assessment and enhancement for multimedia visual signals with widespread applications.

The main topics of interest include, but are not limited to:

- · Subjective quality assessment methodologies
- Objective quality assessment models
- Physiological experiments
- Relationship between human behavior and perceptual quality
- New synthetic or real multimedia quality databases
- Visual quality enhancement, such as super-resolution, denoising, restoration
- A survey of multimedia visual quality assessment and enhancement technology
- · Perception-driven visual signal processing methods
- Visual attention modeling and its applications in perceptual signal processing

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