

22nd IEEE International Symposium on Multimedia (IEEE ISM 2020)

December 2-4, 2020

Royal Continental Hotel

Naples, Italy

<http://www.ieee-ism.org>

COVID-19 Information

The IEEE ISM 2020 conference will be held in Naples as planned, with a hybrid mode - You may join the conference in person or online. For questions, contact ism@uci.edu.

Aims and scope

Research in multimedia computing is generally concerned with computer support for the combination of several media, one of which is usually time-dependent. Examples for media include canned or life-streamed audio and video, 3D visualizations, social data, and data collected from various sensors, etc. Examples for computer support comprise transformation and compression, storage and transmission, presentation and interaction, synchronization and scheduling, protection and analysis, etc.

The technical program of ISM2020 will consist of invited talks, paper presentations, and panel discussions. Submissions are solicited for full papers, short papers, and workshop papers. Topics for submission include but are not limited to:

Systems and Architectures

- Mobile multimedia systems and services
- Pervasive and interactive media systems including mobile systems, pervasive gaming, and digital TV
- Multimedia data in the Cloud
- GPU-based multimedia architectures and systems
- Software development framework using multimedia techniques

Communications and Streaming

- Multimedia networking and QoS
- Mobile audio/video streaming
- Wireless broadcasting and streaming
- Scalable streaming
- Peer-to-peer media systems and streaming
- Sensor networks
- Internet telephony technologies and systems
- Video teleconferencing

Multimedia Interfaces

- Information visualization and interactive systems
- Multimodal user interfaces: design, engineering, modality-abstractions, etc.
- Tools for media authoring, analyzing, editing, browsing, and navigation
- Intelligent agents for content creation, distribution, and analysis
- Novel interfaces for multimedia: touch, tangible, wearable, virtual, 3D, etc.
- User interfaces for mobile devices

Media Coding, Processing, and Quality Measurement

- Signal processing including audio, video, image processing, and coding
- Coding standards
- Scalable and Multi-view coding
- Multi-resolution or super-resolution algorithms
- Maintenance of perceptual quality with further compression
- Developing novel quality measures

Multimedia Security and Forensics

- Data security including digital watermarks and encryption
- Copyright issues for multimedia data
- Surveillance and monitoring methods
- Face detection and recognition algorithms
- Human behavior analysis from motion images/videos
- Multimedia-based computer forensics (e.g., crime scene investigation, user profiling)
- Multimedia Captchas, including attacks and counter-attacks
- On forensic use of biometrics
- Data hiding, stenography, and steganalysis
- Trust and privacy issues in media systems

Content Understanding, Modeling, Management, and Retrieval

- Media meta-modeling techniques
- Storage systems, databases, and retrieval
- Data segmentation
- Image, audio, video, genre clustering & classification
- Video summarization and story generation
- Speaker identification, recognition, and location
- Object, event, emotion, text detection and recognition
- Mosaic, video panorama and background generation
- Media semantics, ontologies, annotation, concept detection and learning
- Personalization and user preferences
- 3D and depth information
- Viewer perception, emotion analysis and visual attention
- Multimedia datasets and open source code for research

- Multimedia recommender systems
- Fake multimedia detection

Mobile Media

- Mobile and location-based media techniques
- Mobile visual search
- Social networks for mobile users
- Augmented reality for mobile users
- Content delivery in mobile networks (e.g., 3G, 4G and future 5G)
- Mobile applications

Applications

- Big data
- 3D data: graphics, displays, sound, broadcasting, interfaces
- Media composition and production: capture, authoring, digital art, animations, etc.
- Gaming
- Virtual and augmented reality
- Robotics
- Media interfaces for the Web
- Media in social network analysis
- Rich media enabled E-commerce and E-shopping
- Media systems for handicapped
- Collaborative systems
- Interdisciplinary media applications: Bioinformatics, Transportation systems, Wild-life monitoring and analysis, etc.
- Deep learning of multimedia data

Conference venue

The IEEE ISM 2020 conference will take place at the Royal Continental Hotel in the wonderful city of Naples, Italy. Naples is the capital of the Campania region, which is a covid-free region, as also recently reported by the New York Times.

In the last few years, Naples has become one of the favourite destinations for all those Italian and foreign tourists who love spending their holidays in cities of artistic interest. Unlike cities in which art is stored in museums and daily life happens on the streets, Naples' distinctive mark is its folklore: people living and working among the artistic beauties of the city. Tourism has become a key factor in the city's economy.

The Royal Continental Hotel is located on Naples' waterfront. It's easy to lose yourself between the sea and the symbols of the city: opposite the hotel, you'll see the legendary Castel dell'Ovo and the Borgo Marinari, just a few minutes walk away is the Piazza del Plebiscito and a little further, the Maschio Angioino. The hotel is located in the centre of the large pedestrianised island of the promenade, while still being well-connected to the rest of the city.

Important Dates

- Paper Submission: August 10, 2020
- Notification of Acceptance: September 22, 2020
- Workshop Submission Deadline: September 29, 2020
- Final Paper Submission: October 30, 2020

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