



Multimedia Systems 2010

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Welcome to the home page of Multimedia Systems.

ACM Multimedia Systems 2010

February 22-23, 2010

Scottsdale, Arizona

www.mmsys.org

Registration now open at: [RegOnline](#)

Over the years, ACM SIG Multimedia has received numerous requests to create a multimedia systems conference, targeted at the systems aspects of handling audio, image, video, and graphics data. We are pleased to announce the First Annual ACM Multimedia Systems (MMSys) Conference to be held February 22-23, 2010 in Scottsdale, Arizona.

The ACM Multimedia Systems conference provides a forum for researchers, engineers, and scientist to present and share their latest research findings in multimedia systems. While research about specific aspects of multimedia systems is regularly published in the various proceedings and transactions of the networking, operating system, real-time system, and database communities, MMSys aims to cut across these domains in the context of multimedia data types. This provides a unique opportunity to view the intersections and interplay of the various approaches and solutions developed across these domains to deal with multimedia data types. Furthermore, MMSys provides an avenue for communicating research that addresses multimedia systems holistically.

Topics of interest include, but are not limited to:

- Multimedia Systems
- Multimedia Networking
- Multimedia Operating Systems
- Multimedia Databases
- Large-Scale and Remote Display Architectures
- Real-Time Support For Multimedia
- Networked Games
- Virtual and Augmented Worlds
- Cyber-Physical Systems
- Peer-to-Peer Architectures for Streaming and Multicast
- Modeling of Multimedia Systems

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Multimedia Interfaces
Multimedia Middleware and Toolkits
Multimedia Programming Languages
Cloud-based Multimedia Processing
Multi-core Support for Multimedia
Mobile Multimedia Systems
3D and Multiview Streaming

Original papers on emerging and traditional areas of multimedia systems are sought. All submissions should not currently be under review in another venue and should be prepared using the standard double-column ACM proceedings style format. Papers should be a maximum of 12 pages in length. Short papers (3-6 pages) are also encouraged and will be evaluated for inclusion in a short-paper track.

Papers should be clearly motivated by themes and issues raised primarily in the context of multimedia applications and data types such as:

Continuity of media over time
Scalability of systems to support multimedia data
Adaptation of media to support real-time requirements

In addition to the refereed paper publication, there will be two unique aspects of the Multimedia Systems Conference:

Multimedia Systems will have an archival site for all its conferences. Each paper will have a blog area that will allow people with questions and comments (moderated) about a paper to be consolidated over time. We hope this will provide a service to the entire community to allow people to come up to speed more quickly about papers that have appeared at Multimedia Systems.

To help facilitate the sharing and common use of data and software, we will be having a software / data archive track that, as part of the publication process, will result in a copy of the software or data archive in the Multimedia Systems web site. This will allow researchers to more quickly converge on common data sets for comparisons.

Important Dates:

September 25, 2009 - Full Paper Submission Deadline

[Link to paper submission page at EDAS.](#)

November 10, 2009 - Notification of Acceptance

December 15, 2009 - Final Paper Due

February 22, 2010 - Conference

Sponsored by ACM SIGMM; In-cooperation with
SIGCOMM and SIGOPS





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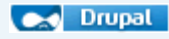
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Hotel Info

MMSys 2010 will be held at the [Scottsdale Marriott Suites Old Town](#), February 22-23, 2010.



Address

[Scottsdale Marriott Suites Old Town](#)

7325 East 3rd Avenue
Scottsdale, Arizona 85251

[Map](#)

Toll-free reservations: (888) 236-2427

Tel: (480) 945-1550

Fax: (480) 945-2005

Transportation

Air travel: The closest airport is Phoenix Sky Harbor (PHX), located approximately 12 miles away.

Ground transportation: The hotel does not provide shuttle service directly; however, taxis may be hired at the airport without a reservation. Taxi fare is estimated at \$35.

Driving directions: From Sky Harbor International, exit airport onto 44th Street North. Turn right (east) on Indian School Road to Scottsdale Road. Turn left on Scottsdale, take 1st right onto Third Avenue. Hotel is on the right, next to Wells Fargo bank.

Hotel Accommodations

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Room features:

Each room is a one-bedroom suite (including separate living room) with balcony. At the time of reservation, you will be able to choose whether you prefer one king bed or two double beds.

There is a wet bar, refrigerator, and coffee maker in every room with microwaves available upon request.

Wireless internet service in the guest room is included in the conference registration rate. Wireless internet service will also be available in the meeting rooms.

Hotel features:

Heated outdoor pool and whirlpool

On-site fitness center

Rate & Reservations:

The room rate is \$169.00 per night (not including tax)

This conference rate is valid for stays between February 18th – February 25th.

The cutoff date for reservations at the conference rate is January 25, 2010.

The Marriott on-line reservation system is not correctly recognize the booking code and/or availability at the hotel. Attendees are advised to reserve rooms via telephone.

To reserve via telephone, use booking code ACMACMA or reference "ACM MMSYS 2010." In the USA or Canada, call 1-888-236-2427. Marriott's worldwide reservation telephone numbers can be found at:

<https://www.marriott.com/reservation/worldnum.mi>

A credit card is needed to secure the reservation. Visa, Mastercard, Discover, and American Express are accepted.

Check in time is 16:00; Check out time is 12:00

Cancellation:

To avoid a one night's room and tax charge, reservations must be canceled at least 24 hours prior to scheduled arrival.





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On-line registration is available at: <http://www.regonline.com/mmsys2010>

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Restaurants

There are plenty of places to eat in downtown Scottsdale - a walk down Scottsdale road will lead to many reasonably priced restaurants. Here are a few recommended ones.

Name	entrée	Type	notes
cowboy ciao	\$25- 35	New American	7133 East Stetson Drive (480) 946-3111
Malee's Thai Bistro	<\$20	Thai	7131 E. Main Street 480.947.6042
Petite Maison	<\$20	New American	7216 East Shoeman Lane - Scottsdale, Arizona 85251 - 480-991-6887 - PetiteMaisonAZ.com
Café Monarch	<\$20	New American	6934 E 1st Ave Scottsdale, AZ 85251 (480) 970- 7682; byob, cash only
FnB	\$15- 25	New American	7133 E Stetson Dr #2 Scottsdale, AZ 85251 (480) 425-9463
Los Sombreros	\$15- 25	Mexican	2534 N Scottsdale Rd Scottsdale, AZ 85257 (480) 994-1799
Arcadia Farms	<\$15	New American	7014 E 1st Ave Scottsdale, AZ 85251 (480) 941- 5665; breakfast, lunch, no dinner
The Orange Table	<\$15	New American	7373 E Scottsdale Mall #6 Scottsdale, AZ 85251 (480) 424-6819; breakfast, lunch, no dinner
AZ 88	Drinks	Lounge	7353 E Scottsdale Mall Scottsdale, AZ 85251 (480) 994-5576

Map: <http://www.bing.com/maps/explore/#/zcdlxmwxbcq8k4g>

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Technical Program

The technical program includes the following four invited papers and 25 papers selected by the program committee.

Introduction - Monday, Feb. 22, 8:30-8:45am

Coding and Processing - Monday, Feb. 22, 8:45am-10:25am

8:45am - Exploring NVIDIA-CUDA for video coding

Aleksandar Colic; Hari Kalva; Borko Furth

9:10am - Exploiting Multi-level Parallelism for Low-latency Activity Recognition in Streaming Video

Mingyu Chen; Lily Mummert; Padmanabhan Pillai; Alexander Hauptmann; Rahul Sukthankar

9:35am - Semi-automatic Registration of Videos for Improved Watermark Detection

Philipp Schaber; Stephan Kopf; Niels Thorwirth; Wolfgang Effelsberg

10:00am - Low Overhead Container Format for Adaptive Streaming

Haakon Riiser; Pål Halvorsen; Carsten Griwodz; Dag Johansen

System Performance - Monday, Feb. 22, 10:45am-12:00pm

10:45am - Empirical Evaluation of Latency-sensitive Application Performance in the Cloud

Sean K Barker; Prashant Shenoy

11:10am - Online Layered Learning for Cross-layer Optimization of Dynamic Multimedia Systems

Nicholas Mastronarde; Mihaela van der Schaar

11:35am - Storage Optimization for a Peer-to-Peer Video-on-Demand Network

Jagadeesh M Dyaberi; Vijay S Pai

Wireless and Mobile - Monday, Feb. 22, 1:30pm-3:10pm

1:30pm - A Credit-based Home Access Point (CHAP) to Improve Application Performance on IEEE 802.11 Networks

Choong-Soo Lee; Mark Claypool; Robert Kinicki

1:55pm - Multicast Scheduling for Scalable Video Streaming in Wireless Networks

Vladimir Vukadinovic; Gyorgy Dan

2:20pm - Modeling and Generation of AVC and SVC-TS Mobile Video Traces for Broadband Access Networks

Abdel Karim Al Tamimi; Raj Jain; Chakchai So-In

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2:45pm - Video Streaming over Cooperative Wireless Networks

Yi Liu; Mohamed Hefeeda

Scalability - Monday, Feb. 22, 3:30pm-5:10pm

3:30pm - Achieving Viewing Time Scalability in Mobile Video Streaming Using Scalable Video Coding

Cheng-Hsin Hsu; Mohamed Hefeeda

3:55pm - Live Peer-to-Peer Streaming with Scalable Video Coding and Networking Coding

Shabnam Mirshokraie; Mohamed Hefeeda

4:20pm - Analysis of Peer-assisted Video-on-Demand Systems with Scalable Video Streams

Kianoosh Mokhtarian; Mohamed Hefeeda

4:45pm - Multi-Application Inter-Tile Synchronization on Ultra-High-Resolution Display Walls

Sungwon Nam; Sachin Deshpande; Venkatram Vishwanath; Byungil Jeong; Luc Renambot; Jason Leigh

Streaming- Tuesday, Feb. 23, 8:30am-9:45am

8:30am - An Evaluation of TCP-based Rate-Control Algorithms for Adaptive Internet Streaming of H.264/SVC

Robert Kuschnig; Ingo Kofler; Hermann Hellwagner

8:55am - Quality-Aware Segment Transmission Scheduling in Peer-to-Peer Streaming Systems

Cheng-Hsin Hsu; Mohamed Hefeeda

9:20am - Paceline: Latency Management through Adaptive Output

Aiman M Erbad; Mahdi Tayarani Najaran; Charles Krasic

Invited Papers - Tuesday, Feb. 23, 10:00am-12:00pm

10:00am - Latency Can Kill: Precision and Deadline in Online Games

Mark Claypool, Worcester Polytechnic Institute

10:30am - Extending Models of Conflict and Intent Dynamics in Narrative-Based Virtual Worlds

R. Michael Young, North Carolina State University

11:00am - Blending Games, Multimedia and Reality

Chris Gauthier Dickey, University of Denver

11:30am - Reconfigurable Video Coding - a Stream Programming Approach to the Specification of New Video Coding Standards

Marco Mattavelli, EPFL

Search and Navigation - Tuesday, Feb. 23, 1:30pm-2:45pm

1:30pm - Vector Model in Support of Versatile Georeferenced Video Search

Seon Ho Kim; Sakire Arslan Ay; Byunggu Yu; Roger Zimmermann

1:55pm - The Video Explorer: A Tool for Navigation and Searching

within a Single Video based on Fast Content Analysis

Klaus Schöffmann; Mario Taschwer; Laszlo Böszörményi

2:20pm Supporting Zoomable Video Streams with Dynamic Region-of-Interest Cropping

Khiem Ngo; Guntur Ravindra; Axel Carlier; Wei Tsang Ooi

**Tele-immersion and Virtual Environments - Tuesday, Feb. 23,
3:00pm-4:40pm**

3:00pm - Adaptive Mixed Reality Stroke Rehabilitation: System Architecture and Evaluation Metrics

Yinpeng Chen; Nicole Lehrer; Hari Sundaram; Thanassis Rikakis

3:25pm - A Methodology for Remote Virtual Interaction in Teleimmersive Environments

Ramanarayan Vasudevan; Edgar Lobaton; Gregorij Kurillo; Ruzena Bajcsy; Tony Bernardin; Bernd Hamann; Klara Nahrstedt

3:50pm - UbiREMOTE: Framework for Remotely Controlling Networked Appliances through Interaction with 3D Virtual Space

Kohta Kiyokawa; Shinya Yamamoto; Naoki Shibata; Keiichi Yasumoto; Minoru Ito

4:15pm - Virtual Worlds Real Traffic: Interaction and Adaptation

Alan Miller; Iain Oliver; Colin Allison





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