

# ACM Multimedia 2004

October 10-16, New York, NY USA

## ACM Multimedia 2004

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## FINAL PROGRAM

The main technical program is as follows. **Workshops** and **tutorials** schedules are listed separately.

The **conference brochure**, **map**, **information**, and **schedule** brochures are now available.

### Tuesday, October 12, 2004

8:30 - Opening Plenary & Keynote  
 10:00 **A New Relevance for Multimedia  
 When We Record Everything  
 Personal**

Gordon Bell (Microsoft Research)  
 Bio: Gordon Bell is a senior researcher at Microsoft Research. Gordon earned the moniker "father of the minicomputer" while serving as vice president of research and development for Digital Equipment Corporation, where he was responsible for the first mini and time-sharing computers and led the development of DEC's VAX. Gordon has been a professor at Carnegie Mellon, served as the first head of the NSF Computing Directorate, led the National Research Network panel that became the NII/GII, and is the author of books on computer technology and startups. He is a member of various professional organizations, including the National Academy of Engineering and the American Academy of Arts and Sciences, and received the 1991 National Medal of Technology. Gordon was instrumental in founding the Computer History Museum, and is digitizing his own history as part of the MyLifeBits project.

10:30 - **Technical Session 1:** Content-

*Incremental Semi-Supervised  
Subspace Learning for Image  
Retrieval*

X. He (The University of Chicago)  
*Manifold-Ranking Based Image  
Retrieval*

J. He (Tsinghua University), M. Li,  
H.-J. Zhang (Microsoft Research  
Asia), H. Tong, C. Zhang (Tsinghua  
University)

*Learning an Image Manifold for  
Retrieval*

X. He (University of Chicago), W.-Y.  
Ma, H.-J. Zhang (Microsoft Research  
Asia)

*A Novel Log-based Relevance  
Feedback Technique in Content-  
based*

*Image Retrieval*

C.-H. Hoi, M. R. Lyu (The Chinese  
University of Hong Kong)

10:30 - **Technical Session 2:** Networked  
12:30 Multimedia Applications

**Session Chair: Yong Rui**

*Automatic Replay Generation for  
Soccer Video Broadcasting*

J. Wang (Nanyang Technological  
University and Institute for  
Infocomm Research), C. Xu  
(Institute for Infocomm Research),  
E. Chng (Nanyang Technological  
University), K. Wan, Q. Tian  
(Institute for Infocomm Research)

*Networked Multimedia Event  
Exploration*

P. Appan, H. Sundaram (Arizona  
State University)

*Privacy Protecting a Collection in  
Media Spaces*

J. Wickramasuriya, M. t, S.  
Mehrotra, N. Venkatasubramanian  
(University of California at Irvine)

*An Adaptive Skin Model and Its  
Application to Objectionable Image  
Filtering*

Q. Zhu, C.-T. Wu, K.-T. Cheng  
(University of California at Santa  
Barbara), Y.-L. Wu (VIMA  
Technologies Inc.)

10:30 - **Art Session 1:** Augmented and  
12:30 Virtual Spaces for Creative Learning,  
Collaboration and Play

**Session Chair: Pamela Jennings**

*Living-room, Interactive, Space-  
Oriented Augmented Reality*

R. Galantay, J. Torpus, M. Engeli  
(University of Art + Design Basel)

*Scenographies of the Past and*

*Interactive Narrative Spaces*

F. Sparacino (Sensing Places)

*New Ways of Worldmaking: the**Alterne Platform for VR Art*

M. Cavazza, J.-L. Lugin, S. Hartley,

P. Libardi, M. J. Barnes, M. Le Bras

(University of Teesside), M. Le

Renard (CLARTE), L. Bec (CYPRES),

A. Nandi (Commediastra)

10:30 - **Brave New Topics - Session 1:**12:00 [Multimedia Service Composition:](#)**Session Chair: Wolf-Tilo Balke  
and Klara Nahrstedt***A Taxonomy for Multimedia Service  
Composition*

K. Nahrstedt (University of Illinois at

Urbana-Champaign), W.-T. Balke

(University of California at Berkeley)

*Towards an Integrated Multimedia**Service Hosting Overlay*

D. Xu, X. Jiang (Purdue University)

*Web Services Selection for**Distributed Composition of**Multimedia Content*

M. Wagner, W. Kellerer (DoCoMo

Communications Laboratories

Europe)

*Support for Service Composition in  
i3*

K. Lakshminarayanan, I. Stoica

(University of California at

Berkeley), K. Wehrle (University of

Tübingen)

14:00 - **Technical Session 3 : Audio**

15:30 Processing

**Session Chair: Hari Sundaram***Content-based Music Structure**Analysis with Applications**to Music Semantics Understanding*

N. C. Maddage (Institute for

Infocomm Research and National

University of Singapore), C. Xu

(Institute for Infocomm), M. S.

Kankanhalli (National University of

Singapore), X. Shao (Institute for

Infocomm Research and National

University of Singapore)

*Real-time Background Music**Monitoring Based on Content-based**Retrieval*

Y. Suga, N. Kosugi, M. Morimoto

(NTT Corporation)

*Searching Notated Polyphonic Music**Using Transportation Distances*

R. Typke, R. C. Veltkamp, F. Wiering

(Utrecht University)

14:00 - **Technical Session 4: Multimedia**

15:30 Streaming

*Application-Specific Path Switching:**A Case Study for Streaming Video*

S. Tao, R. Guérin (University of Pennsylvania)

*A Framework for Robust and Scalable Audio Streaming*

Y. Wang, W. Huang, J. Korhonen (National University of Singapore)

*Loss-resilient On-demand Media Streaming Using Priority Encoding*

C. Huang, R. Janakiraman, L. Xu (Washington University in St. Louis)

14:00 - **Technical and Art**15:30 **demonstrations Session 1****Session Chair: Michael Vernick***An Approach to Interactive Media System for Mobile Devices*

E.-S. Ryu, C. Yoo (Korea University)

*Range Multicast Routers for Large-Scale Deployment of Multimedia Application*

N. Jiang, Y. H. Ho, K. A. Hua (University of Central Florida)

*Exploiting Content-Based Networking for Video Streaming*

V. S. W. Eide (Simula Research Laboratory and University of Oslo), Eliassen (Simula Research Laboratory), J. A. Michaelsen (University of Oslo)

*DiMaS: Distributing Multimedia on Peer-to-Peer File Sharing Networks*

T. Reti, R. Sarvas (Helsinki Institute for Information Technology)

*Demonstrating a Video and Audio Web*

C. Parker, A. Pang, S. Pfeiffer (CSIRO-ICT Centre)

*Interactive Tele-Journalism: Low Cost, Live, Interactive**Television News Production*

S. Van Every (New York University)

*P-Karaoke: Personalized Karaoke System*

X.-S. Hua, L. Lu, H.-J. Zhang (Microsoft Research Asia)

*Demonstration of Adjusting Forward Error Correction with Quality Scaling for TCP-Friendly Streaming MPEG*

H. Wu, M. Claypool, R. Kinicki (Worcester Polytechnic Institute)

*A Web Based Multi-display Presentation System*

F. Zhao, Q. Liu (FX Palo Alto Laboratory)

*Generic Support for Personalized Mobile Multimedia Tourist Applications*

A. Schorn (Oldenburg Research and

*N.A.G. (Network Auralization for Gnutella)*

J. Freeman (Columbia University)

*Bio-Fi: Inverse Biotelemetry Projects*

D. Easterly (Syracuse University)

*LEMUR: Robotic Musical Instruments*

E. Singer, J. Feddersen (LEMUR)

*Userradio*

A. Black (Media Arts and Technology Program)

14:00 - **Brave New Topics - Session 2:**

15:30 From Context to Content:

Leveraging Contextual Metadata to Infer Multimedia Content

**Session Chair: Marc Davis**

*From Context to Content:*

*Leveraging Context to Infer Media Metadata*

M. Davis, S. King, N. Good

(University of California at Berkeley), R. Sarvas (Helsinki

Institute for Information

Technology)

*Context a in Geo-Referenced Digital Photo Collections*

M. Naaman, S. Harada, Q. Wang, H. Garcia-Molina, A. Paepcke (Stanford

University)

*Context for Semantic Metadata*

K. Haase (beingmeta, inc. and Media Lab Europe)

16:00 - **Technical Session 5:** Student Best

17:30 Paper Contest

**Session Chair: Shih-Fu Chang**

*LyricAlly: Automatic Synchronization of Acoustic Musical Signals and*

*Textual Lyrics*

Y. Wang, M.-Y. Kan, T. L. Nwe, A.

Shenoy, J. Yin (National University of Singapore)

*Predictive Perceptual Compression*

*for Real Time Video Communication*

O. Komogortsev, J. Khan (Kent State University)

*Proportional Service Differentiation*

*in Wireless LANs Using Spacing-based Channel Occupancy*

*Regulation*

Q. Xue, A. Ganz (University of

Massachusetts)

19:00 - **Technical Poster Session and**

21:00 **Reception**

**Session Chairs: Svetha**

**Venkatesh and Brian Bailey**

***Multimedia Analysis, Processing, & Retrieval***

• MPEG-4 Based Real time Shadows

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