ACM Multimedia 2004

October 10-16, New York, NY USA

ACM Multimedia 2004
Conference Poster
Conference Committee
Technical Program Committee

Submission Information
- Papers
- Panels
- Short papers
- Tutorials
- Brave New Topics
- Technical Demonstrations
- Interactive Art Program
- Video Demonstrations
- Workshops
- Doctoral Symposium
- Open Source Software Competition

Camera Ready Submission Instruction
Final Program
Registration
Travel, Visa, and Local Information
Student Volunteer and Travel Grant
Related Events

Corporate Support

MM Conferences
MM 2003
MM 2002
MM 2001
MM 2000

Sponsoring SIGs
SIGMM

Contact Us
Webmaster: Lalitha Agnihotri

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 - 10:00 Opening Plenary & Keynote

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 Unversity 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 - 12:30 **Technical Session 2:** Networked 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 - 12:30 **Art Session 1:** Augmented and 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 Bassel)
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. Lugrin, 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 - 12:00 **Brave New Topics - Session 1**: 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 - 15:30 **Technical Session 3** : Audio 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 Backround 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 - 15:30 **Technical Session 4**: Multimedia 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 - 15:30 **Technical and Art 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. Scherp (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 - 15:30 **Brave New Topics - Session 2**: 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 - 17:30 **Technical Session 5**: Student Best 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 - 21:00 **Technical Poster Session and Reception**
Session Chairs: Svetha Venkatesh and Brian Bailey

Multimedia Analysis, Processing, & Retrieval
• MPEG-4 Based Real time Shadows

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.