



Multimedia Systems Conference

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Technical Program

AT A GLANCE

Wednesday, February 23rd, 2011

8:00 Registration and Breakfast

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11:45 Lunch

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6:00 (End Day 1)

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DETAILS

Wednesday, February 23rd, 2011

(8:00) **Registration and Breakfast**

(8:30) **Opening Remarks** ([slides](#))

(8:45) Keynote

Alain Fiocco ([Cisco](#)) ([slides](#))

(9:45) Break**(10:15) Wireless and Mobile**

Session Chair: Klara Nahrstedt (University of Illinois, Urbana-Champaign)

[GPS-aided Recognition-based User Tracking System with Augmented Reality in Extreme Large-scale Areas](#) ([slides](#))

W. Guan, S. You, U. Neumann

[Energy-Efficient Mobile Video Management using Smartphones](#) ([slides](#))

J. Hao, S. Kim, S. Ay, R. Zimmermann

[MultiSense: Fine-grained Multiplexing for Steerable Camera Sensor Networks](#) ([slides](#))

N. Sharma, D. Irwin, P. Shenoy, M. Zink

(11:45) Lunch**(1:00) Networking**

Session Chair: Roger Zimmerman (National University of Singapore)

[Multimedia-unfriendly TCP Congestion Control and Home Gateway Queue Management](#) ([slides](#))

L. Stewart, D. Hayes, G. Armitage, M. Welzl, A. Petlund

[Effects of Internet Path selection on Video QoE](#) ([slides](#))

M. Venkataraman, M. Chatterjee

[Improving the Performance of Quality-Adaptive Video Streaming over Multiple Heterogeneous Access Networks](#) ([slides](#))

K. Evensen, D. Kaspar, C. Griwodz, P. Halvorsen, A. Hansen, P. Engelstad

(2:30) Break**(3:00) Data Transmission and QoS**

Session Chair: Grenville Armitage (Swinburne University of Technology)

[Synchronized Dissemination in Multi-site Interactive 3D Tele-immersion](#) ([slides](#))

Z. Huang, W. Wu, K. Nahrstedt

[Quantifying QoS Requirements of Network Services: A Cheat-Proof Framework](#) ([slides](#))

K. Chen, C. Wu, Y. Chang, C. Lei

[Efficient Data Transmission Between Multimedia Web Services via Aspect-Oriented Programming](#) ([slides](#))

D. Seiler, E. Juhnke, R. Ewerth, M. Grauer, B. Freisleben

(4:30) Break**(4:45) Dataset Track**

Session Chair: Michael Zink (University of Massachusetts, Amherst)

[Network Traces of Virtual Worlds: Measurements and Applications](#) ([slides](#))

Y. Wang, C. Hsu, J. Singh, X Liu

[End-to-End and Network-Internal Measurements of Real-Time Traffic to Residential Users](#) ([slides](#))

M. Ellis, C. Perkins, D. Pezaros

[The Stanford Mobile Visual Search Dataset](#) ([slides](#))

V. Chandrasekhar, D. Chen, S. Tsai, N. Cheung, H. Chen, G. Takacs, Y. Reznik, R. Vedantham, R. Grzeszczuk, J. Bach, B. Girod

[World of Warcraft Avatar History Dataset](#) (slides)

Y. Lee, K. Chen, Y. Cheng, C. Lei

[Affect Corpus 2.0: An Extension of a Corpus for Actor Level Emotion Magnitude Detection](#) (slides)

R. Calix, G. Knapp

(6:00) **End of Day 1**

Thursday, February 24th, 2011

(8:30) **Breakfast**

(9:00) **Keynote** (slides)

[HTTP Adaptive Streaming in Practice](#)

Mark Watson ([Netflix](#))

Abstract: This talk will give an overview of Netflix's large scale HTTP adaptive streaming system, discuss some of the reasons why we chose this technology and introduce some of the challenges we face in moving to a standards-based solution. I'll also discuss a general model of the "adaptivity" problem and highlight some areas for future research into adaptation algorithms.

Bio: Mark Watson is a senior member of the engineering team at Netflix, focusing on adaptive streaming system architecture, streaming quality and standardization. He previously held the position of Director of Research at Digital Fountain, working on internet video delivery solutions and a Principal Engineer position at Qualcomm. He is a significant contributor to the current MPEG DASH adaptive streaming standard as well as numerous other standards for media delivery over IP networks.

(10:00) **Break**

(10:25) **Modern Media Transport 1**

Session Chair: Christian Timmerer ([ITEC](#))

[3GPP Dynamic Adaptive Streaming over HTTP - Standards and Design Principles](#) (30 min) (slides)

T. Stockhammer

[Feedback Control for Adaptive Live Video Streaming](#) (30 min)

L. De Cicco, S. Mascolo, V. Palmisano (slides)

[An Experimental Evaluation of Rate Adaptation Algorithms in Adaptive Streaming over HTTP](#) (30 min) (slides)

S. Akhshabi, A. Begen, C. Dovrolis

[Rate Adaptation for Adaptive HTTP Streaming](#) (20 min) (slides)

C. Liu, I. Bouazizi, M. Gabbouj

(12:15) **Lunch**

(12:45) **Start walking to Building 10 Executive Briefing Center (ground floor)**

(1:00 - 2:00) **Building 10 EBC Demos**

(2:00) **Start walking to Building 6 IPTV Lab (ground floor)**

(2:15 - 4:15) **IPTV Demos**

(4:15) **Walk back to Building 3 New Frontier room**

(4:30) [Impact of Flash Memory on Video-on-Demand Storage: Analysis of Tradeoffs](#) (slides)

M. Ryu, H. Kim, U. Ramachandran

- [Watching User Generated Videos with Prefetching](#) (slides)
S. Khemmarat, R. Zhou, L. Gao, M. Zink
- [Dynamic Codec with Priority for Voice over IP in WLAN](#) (slides)
K. Stoeckigt, H. Vu, P. Branch

(5:30) **End of Day 2**

Friday, February 25th, 2011

(7:45) **Breakfast**

(8:15) **Encoding and Repair**

Session Chair: Wu-chi Feng (Portland State University)

[Adaptive Encoding of Zoomable Video Streams based on User Access Pattern](#) (slides)

N. Khiem, G. Ravindra, W. Ooi

[On the Impact of Quality Adaptation in SVC-based P2P Video-on-Demand Systems](#) (slides)

O. Abboud, T. Zinner, K. Pussep, R. Steinmetz

[Error-Resilient Live Video Multicast using Low-Rate Visual Quality Feedback](#) (slides)

D. Varodayan, W. Tan

(9:45) **Break**

(10:05) **Modern Media Transport 2**

Session Chair: Ali C. Begen (Cisco)

[Evaluation of HTTP-based Request-Response Streams for Internet Video Streaming](#) (30 min) (slides)

R. Kuschnig, I. Kofler, H. Hellwagner

[iDASH: Improved Dynamic Adaptive Streaming over HTTP using Scalable Video Coding](#) (30 min) (slides)

Y. Sánchez, T. Schierl, C. Hellge, T. Wiegand, D. Hong, D. De Vleeschauwer, W. Van Leekwijck, Y. Lelouedec

[Usages of DASH for Rich Media Services](#) (20 min) (slides)

J. Feuvre, C. Concolato, R. Bouqueau

[A Test-Bed for MPEG Dynamic Adaptive Streaming over HTTP featuring Session Mobility](#) (20 min) (slides)

C. Müller, C. Timmerer

[DRM Protected Dynamic Adaptive HTTP Streaming](#) (20 min) (slides)

F. Hartung, S. Kesici, D. Catrein

(12:05) **Closing Remarks**

(12:15) **End of Day 3**

