22nd ACM Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 2012)

The Hart House
University of Toronto
Toronto, Ontario, Canada
June 7 – 8, 2012

Final Technical Program

June 7, 2012, Thursday

Debates Room, the Hart House

Continental Breakfast (provided)

8:00 a.m. — 8:55 a.m.

Opening Remarks and Welcome

8:55 a.m. — 9:00 a.m.

Baochun Li (University of Toronto), Co-chair

Keynote Address 1

Dr. Ali C. Begen, Cisco Systems

9:00 a.m. — 10:00 a.m.

"TV Everywhere"

Chair: Baochun Li, University of Toronto

Coffee and Tea Break

10:00 a.m. — 10:30 a.m.

Session 1: Streaming I

10:30 a.m. — 12:30 p.m.

Session Chair: Gwendal Simon (Telecom Bretagne)

"Why Are State-of-the-art Flash-based Multi-tiered Storage Systems Performing Poorly for HTTP Video Streaming?"

Moonkyung Ryu, Hyojun Kim, Umakishore Ramachandran (Georgia Institute of Technology)

"What Happens when HTTP Adaptive Streaming Players Compete for Bandwidth?"

Saamer Akhshabi, Lakshmi Anantakrishnan, Constantine Dovrolis (Georgia Institute of Technology), Ali C. Begen (Cisco Systems)

"Interactions Between HTTP Adaptive Streaming and TCP"

Jairo Esteban, Steven Benno, Andre Beck, Yang Guo, Volker Hilt, Ivica Rimac (Alcatel-Lucent Bell Labs)

SmartTransfer: Transferring Your Mobile Multimedia Contents at the "Right" Time

Yichuan Wang, Xin Liu (University of California, Davis), Angela Nicoara (Deutsche Telekom R&D Laboratories USA), Ting-An Lin (National Tsing Hua University), Cheng-Hsin Hsu (National Tsing Hua University)

Workshop Lunch (provided)

12:30 p.m. — 2:00 p.m.

Session 2: Cloud and Middleware Support

2:00 p.m. — 3:30 p.m.

Session Chair: Bernard Wong (University of Waterloo)

"Quiver: A Middleware for Distributed Gaming"

Giuseppe Reina (Eurecom, France), Ernst Biersack (Eurecom, France), Christophe Diot (Technicolor, France)

"Cloud Transcoder: Bridging the Format and Resolution Gap between Internet Videos and Mobile Devices"

Zhenhua Li (Peking University), Yan Huang, Gang Liu, Fuchen Wang (Tencent Research), Zhi-Li Zhang (University of Minnesota), Yafei Dai (Peking University)

"A Content Replication Scheme for Wireless Mesh Networks"

Zakwan Al-Arnaout, Qiang Fu, Marcus Frean (Victoria University of Wellington, New Zealand)

Coffee and Tea Break

3:30 p.m. — 4:00 p.m.

Session 3: Multiview and Panoramic Video

4:00 p.m. — 5:00 p.m.

Session Chair: Zimu Liu (University of Toronto)

"Evaluation of Distribution of Panoramic Video Sequences in the eXplorative Television Project"

Peter Quax, Panagiotis Issaris, Wouter Vanmontfort, Wim Lamotte (Expertise Center for Digital Media / Hasselt University)

"Collaborative View Synthesis for Interactive Multi-view Video Streaming"

Fei Chen, Jiangchuan Liu (Simon Fraser University), Edith Cheuk-Han Ngai (Uppsala University)

June 8, 2012, Friday

Debates Room, the Hart House

Continental Breakfast (provided)

8:00 a.m. — 9:00 a.m.

Keynote Address 2

Professor Wu-chi Feng, Portland State University

9:00 a.m. — 10:00 a.m.

"Streaming Media Evolution: Where to now?"

Chair: Baochun Li, University of Toronto

Coffee and Tea Break

10:00 a.m. — 10:30 a.m.

Session 4: Streaming II

10:30 a.m. — 12:00 p.m.

Session Chair: Pål Halvorsen (University of Oslo, Norway)

"On Tile Assignment for Region-of-Interest Video Streaming in a Wireless LAN"

Ravindra Guntur, Wei Tsang Ooi (National University of Singapore)

"Minimizing Server Throughput for Low-Delay Live Streaming in Content Delivery Networks"

Fen Zhou (Telecom Bretagne), Shakeel Ahamad (De Montfort University), Eliya Buyukkaya (Telecom Bretagne), Raouf Hamzaoui (De Montfort University), Gwendal Simon (Telecom Bretagne)

"To Chunk or Not to Chunk: Implications for HTTP Streaming Video Server Performance"

Jim Summers, Tim Brecht (University of Waterloo), Derek Eager (University of Saskatchewan), Bernard Wong (University of Waterloo)

Workshop Lunch (provided)

12:00 p.m. — 1:30 p.m.

Session 5: Content Sharing

1:30 p.m. — 2:30 p.m.

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

"Content and Geographical Locality in User-Generated Content Sharing Systems"

Kévin Huguenin (EPFL), Anne-Marie Kermarrec (INRIA), Konstantinos Kloudas (INRIA), François Taïani (Lancaster University)

"Video Sharing in Online Social Network: Measurement and Analysis"

Haitao Li, Haiyang Wang, Jiangchuan Liu (Simon Fraser University)

Panel Discussion — "Media Streaming: Pushing the Envelope"

Pål Halvorsen (University of Oslo, Norway), Wu-chi Feng (Portland State University), Yan Huang (Tencent Inc.), Tim Brecht (University of Waterloo)

Chair: Baochun Li (University of Toronto)

2:30 p.m. — 3:30 p.m.

Coffee and Tea Break **3:30 p.m. — 4:00 p.m.**
Session 6: Video Compression **4:00 p.m. — 5:30 p.m.** *Session Chair:* Quang Minh Khiem Ngo (National University of Singapore)
"Sensor-Assisted Camera Motion Analysis and Motion Estimation Improvement for H.264/AVC Video Encoding" Guanfeng Wang, Haiyang Ma, Beomjoo Seo, Roger Zimmermann (National University of Singapore) **"CAME: Cloud-Assisted Motion Estimation for Mobile Video Compression and Transmission"** Yuan Zhao, Lei Zhang, Xiaoqiang Ma, Jiangchuan Liu (Simon Fraser University), Hongbo Jiang (Huazhong University of Science and Technology) **"Understanding the Impact of Inter-Lens and Temporal Stereoscopic Video Compression"** Wu-chi Feng, Feng Liu (Portland State University)
Closing Remarks Baochun Li (University of Toronto), Co-chair **Welcome to NOSSDAV 2013** Pål Halvorsen (University of Oslo, Norway)