IEEE ICC 2012 Workshop on Emerging Data Storage Technologies

June 11, 2012, 2:00 - 6:00 PM

Workshop Chairs

- **Chair:** Dr. Warren Gross
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- **Co-Chair:** Dr. Kui Cai
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- **Co-Chair:** Dr. Alex Dimakis
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Sponsoring Technical Committees

Data Storage Technical Committee (DSTC)

Technical Program Committee

Warren Gross

McGill University, Canada (Chair)

Kui Cai

Data Storage Institute, Singapore (Co-Chair)

Alex Dimakis

University of Southern California (Co-Chair)

Coding and Signal Processing form critical components of modern data storage systems. Recent advances in emerging data storage technologies, such as non-volatile memories (NVM), bit-patterned media recording (BPMR) and heat-assisted magnetic recording (HAMR) transform the storage industry. On the system level, massive distributed storage networks, data centers and cloud storage systems are currently adopting erasure coding techniques for higher storage efficiency. This workshop seeks to bring academia and industry efforts closer and develop better technologies and practices for future storage architectures.

Invited and contributed technical papers to this workshop are to follow the same format and length requirements (double-column, 10 point font, 5 pages) as ICC 2012. Accepted papers will be presented at the workshop and included in the IEEE digital library.

Main Topics of Interest

Topics of interest include, but are not limited to:

1. Coding, signal processing, and information theoretic aspects of ultra-high density magnetic recording. New concepts for BPMR and HAMR

2. Non-volatile memories: modeling and characterization of NVM, such as flash, phase change RAM (PCRAM), and spin-transfer torque RAM (STTMRAM). Endurance coding and wear-leveling. System-on-chip (SOC) architecture and optimization

3. Data Centers and distributed storage networks. Coding techniques in cloud storage, distributed storage networks and data centers. Storage management and inter-operability, storage security.

News

- Presentation Slides Posted.

- Workshop Program Posted.

Dates

Paper Submission: Extended to December 20, 2011.

Links

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ICC 2012 Workshops

ICC 2012 Registration

Call For Papers (PDF)

Workshop Program

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University of Arizona, USA

Zining Wu

Marvell, USA

Tony Xia

LSI Corportation, USA

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4. Storage Applications. Data compression for digital storage, including audio and video Signal processing and coding methods for object based storage systems. Data security for storage systems.