The 26th IEEE Conference on Mass Storage Systems and Technologies (MSST2010): Research Track

Hyatt Regency at Lake Tahoe
Incline Village, Nevada
May 3-7, 2010

Thursday:

9:00-10:45   **Opening Remarks and SSD**

An Adaptive Partitioning Scheme for DRAM-based Cache in Solid State Drives.
H. Shim, B. Seo, J. Kim, S. Maeng

High Performance Solid State Storage Under Linux.
E. Seppanen, M. O'Keefe, D. Lilja

Achieving Page-Mapping FTL Performance at Block-Mapping FTL Cost by Hiding Address Translation.
Y. Hu, H. Jiang, D. Feng, L. Tian, S. Zhang, J. Liu, W. Tong

10:45-11:15   **Break**

11:15-12:45   **Security and Reliability**

Block Storage listener for detecting file-level intrusions.
M. Allalouf, M. Ben-Yehuda, J. Satran, I. Segall

Flat XOR-based erasure codes in storage systems: Constructions, efficient recovery, and tradeoffs.
K. Greenan, X. Li, J. Wylie

S2-RAID: A New RAID Architecture for Fast Data Recovery.
J. Wan, J. Wang, Q. Yang, C. Xie

12:45-14:00   **Lunch**

14:00-15:30   **File System**

Security Aware Partitioning for Efficient File System Search.
A. Parker-Wood, C. Strong, E. Miller, D. Long

Linear Tape File System.
D. Pease, A. Amir, L. Real, B. Biskeborn, M. Richmond

Hadoop Distributed File System.
K. Shvachko, H. Huang, S. Radia, R. Chansler

15:30-16:00   **Break**

16:00-17:30　　　**Short papers**

18:00-19:30　　　**Poster and reception**

<u>**Friday:**</u>

9:00-10:30　　　**Energy Efficiency and QoS**

Leveraging Disk Drive Acoustic Modes for Power Management.
D. Chen, G. Goldberg, R. Kahn, R. Kat, K. Meth

Energy and Thermal Aware Buffer Cache Replacement
Algorithm.
J. Yue, Y. Zhu, Z. Cai, L. Lin

Mahanaxar: Quality of Service Guarantees in High-Bandwidth,
Real-Time Streaming Data Storage.
D. Bigelow, S. Brandt, J. Bent, H. Chen

10:30-11:00　　　**Break**

11:00-12:30　　　**Disk and Memory Recording Technology**

A Content-Aware Block Placement Algorithm
for Reducing PRAM Storage Bit Writes.
B. Wongchaowart, M. Iskander, S. Cho

Design Issues for a Shingled Write Disk System.
A. Amer, D. Long, E. Miller, J. Paris, T. Schwarz

Indirection Systems for Shingled-Recording Disk Drives.
Y. Cassuto, M. Sanvido, C. Guyot, D. Hall, Z. Bandic

12:30-14:00　　　**Lunch**

14:00-15:30　　　**Higher Level Access**

MAD2: A Scalable High-Throughput Exact Deduplication
Approach for Network Backup Services.
J. Wei, H. Jiang, K. Zhou, D. Feng

Enabling Active Storage on Parallel I/O Software Stacks.
*S. Son, S. Lang, P. Carns, R. Ross, R. Thakur, B. Ozisikyilmaz,
P. Kumar, W. Liao, A. Choudhary*

Exporting Kernel Page Caching for Efficient User-Level I/O.
R. Spillane, S. Dixit, S. Archak, S. Bhanage, E. Zadok

Short Papers:

Analysis and Modeling of Self-similarity in Parallel I/O Workloads.
Q. Zou

BPAC: An Adaptive Write Buffer Management Scheme for Flash-based Solid State Drives.
G. Wu, B. Eckart, X. He

Automated Lookahead Data Migration in SSD-enabled Multi-tiered Storage Systems.
G. Zhang, L. Chiu, C. Dickey, L. Liu, P. Muench, S. Seshadri

Delayed Partial Parity Scheme for Reliable and High-Performance Flash Memory SSD.
S. Im, D. Shin

Deferred Updates for Flash-Based Storage.
B. Debnath, M. Mokbel, D. Lilja, D. Du

dedupv1: Improving Deduplication Throughput using Solid State Drives (SSD).
D. Meister, A. Brinkmann

Red: An Efficient Replacement Algorithm Based on REsident Distance for Exclusive Storage Caches.
Y. Zhao, N. Xiao, F. Liu

A Performance Model and File System Space Allocation Scheme for SSD.
C. Hyun, Y. Oh, E. Kim, J. Choi, D. Lee, S. Noh

Observations made while running a multi-petabyte storage system.
M. Santos, D. Waldron

Write Amplification Reduction in NAND Flash through Multi-Write Coding.
A. Jagmohan, M. Franceschini, L. Lastras

Disk-Enabled Authenticated Encryption.
K. Butler, S. McLaughlin, P. McDaniel

Scalable Storage Support for Data Stream Processing.
Z. Sebepou, K. Magoutis