

Systems and Storage Conference - Program

SYSTOR 2010

Day 1 - May 24, 2010

- **09:00** Registration Lobby of IBM Haifa building
- 09:30 SYSTOR '10 Welcome Remarks
- 10:00 Keynote Talk: Many-core Computing: A Disruptive Technology Enabling Lowcost, Low-power Desktop Supercomputing David Kaeli, Northeastern University
- 11:00 Coffee Break

Session 1.1: Storage & Virtualization - Chair: Eitan Bachmat, Ben-Gurion University

- 11:30 Using Machine Learning
 Techniques to Enhance the
 Performance of an Automatic
 Backup and Recovery System
 Amir Ronen, Dan Pelleg (IBM
 Research Haifa), and Eran
 Raichstein (IBM Software Group)
- 12:00 Optimizations of LFS with Slack Space Recycling and Lazy Indirect Block Update Yongseok Oh, Donghee Lee (University of Seoul), Jongmoo Choi (Dankook University), Eunsam Kim, and Sam H. Noh (Hongik University)
- 12:30 A New Approach to File System
 Cache Writeback of Application
 Data
 Sorin Faibish, Peter Bixby, John
 Forecast, Philippe Armangau, and
 Sitaram Pawar (EMC Corp.)

- 13:00 Design and Implementation of a Generic Resource Sharing Virtual Time Dispatcher

 Tal Ben-Nun (Hebrew University),
 Yoav Etsion (Barcelona
 Supercomputer Center), and Dror
 G. Feitelson (Hebrew University)
- 13:30 Lunch

Session 1.2: Workload-driven Optimization - Chair: Idit Keidar, Technion

- 14:30 Empirical Quantification of Opportunities for Content Adaptation in Web Servers

 Michael Gopshtein and Dror G. Feitelson (Hebrew University)
- 15:00 Scalability Limitations when Running a Java Web Server on a Chip Multiprocessor Takeshi Ogasawara (IBM Research - Tokyo)
- 15:30 Scalable Performance of System S for Extract-Transform-Load Processing Toyotaro Suzumura, Toshiaki Yasue, and Tamiya Onodera (IBM Research Tokyo)
- 16:00 Student Poster Session Refreshments will be served.













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Day 2 - May 25, 2010

09:00 Registration - Hecht Auditorium, Haifa University

09:30 Keynote Talk: Reliable Distributed Storage Idit Keidar, Technion

10:30 Coffee Break

Session 2.1: Parallel Programming - Chair: Erez Zadok, Stony Brook University

11:00 HparC: A Mixed Nested Shared Memory and Message Passing Programming Style Intended for Grid Yosi Ben-Asher, Dimitry Giver, (Haifa University), Gadi Haber (IBM Research - Haifa), and Gil Kulish (Haifa University)

11:30 STAPL: Standard Template
Adaptive Parallel Library
Antal Buss, Harshvardhan, Ioannis
Papadopoulos, Olga Pearce,
Timmie Smith, Gabriel Tanase,
Nathan Thomas, Xiabing Xu,
Mauro Bianco, Nancy M. Amato,
and Lawrence Rauchwerger
(Texas A&M University)

12:00 Parallel Programming Framework for Large Batch Transaction Processing on Scale-out Systems Kazuaki Ishizaki, Toshio Suganuma, Akira Koseki, Yohei Ueda, Ken Mizuno, Hideaki Komatsu, Toshio Nakatani (IBM Research - Tokyo), and Daniel Silva (IBM Corporation)

12:30 Guided Tour of the Hecht Museum

13:30 Lunch at IBM

Session 2.2: Virtualization - Chair: Dan Tsafrir, Technion

14:30 Plugging the Hypervisor
Abstraction Leaks Caused by
Virtual Networking
Alex Landau, David Hadas, and
Muli Ben-Yehuda (IBM Research Haifa)

15:00 Operating Systems Virtualization:
Practice and Experience
Oren Laadan and Jason Nieh
(Columbia University)

15:30 On the DMA Mapping Problem in Direct Device Assignment Ben-Ami Yassour, Muli Ben-Yehuda, and Orit Wasserman (IBM Research - Haifa)

16:00 Social Event:
Galilee Tour and Dinner













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Day 3 - May 26, 2010

09:00 Registration - IBM Haifa building

09:30 Keynote Talk: Bread Crumbs Don't Last Mary G. Baker, HP

10:30 Coffee Break

Session 3.1: Storage and Communication - Chair: Miriam Allalouf, IBM

11:00 Application-Storage Discovery
Nikolai Joukov, Birgit Pfitzmann,
HariGovind V. Ramasamy, and
Murthy V. Devarakonda (IBM T.J.
Watson Research Center)

11:30 DARC: Design and Evaluation of an I/O Controller for Data Protection

Markos Fountoulakis, Manolis

Marazakis, Michail D. Flouris, and Angelos Bilas (FORTH-ICS)

12:00 A Hybrid Multicast-Unicast Infrastructure for Efficient Publish-Subscribe in Enterprise Networks Danny Bickson, Ezra N. Hoch, Nir Naaman, and Yoav Tock (IBM R&D Labs in Israel)

12:30 Invited Talk: Server-Class Energy and Performance Evaluations Erez Zadok, Stony Brook University 13:30 Lunch

Session 3.2: Low-level
Optimization - Chair: Muli BenYehuda, IBM

14:30 Generating Low-Overhead Dynamic Binary Translators Mathias Payer and Thomas R. Gross (ETH Zurich)

15:00 Code Alignment for Architectures with Pipeline Group Dispatching Omer Boehm, Gadi Haber, and Helena Kosachevsky (IBM Research - Haifa)

Panel

- **15:30** Cloud Computing: A New Direction or a Passing Trend?
- **16:30** Closing Remarks *Yaron Wolfsthal, Senior Manager, Systems Technologies and Services, IBM Research Haifa*









