

**The 2010 IEEE International Conference on
Networking, Architecture, and Storage (NAS 2010)
July 15 - 17
Macau, China**

July 14: Noon – 6pm: Registration

Day 1: July 15

8:30 - 9:00 am	Welcome		
9:00 - 10:00 am	Keynote Speech: Dr. Peter Braam - Modularity for clustered file data management		
10:00 - 10:30 am	Coffee break		
10:30 - 12:00 am	Session 1A (Room A)	Session 1C (Room C)	Session 1D (Room B)
12:00 - 13:30 pm	Lunch		
13:30 - 15:30 pm	Session 2A (Room A)	Session 2B (Room B)	Session 2C (Room C)
15:30 - 16:00 pm	Coffee break		
16:00 - 18:00 pm	Session 3A (Room A)	Session 3B (Room B)	Session 3C (Room C)
20:00 - 22:00 pm	Banquet Dinner		

Day 2: July 16

8:30 - 9:30 am	Keynote Speech: Dr. Almadena Y. Chtchelkanova - Cyberinfrastructure Framework for Scientific Discovery and Engineering Innovations		
9:30 - 10:00 am	Coffee break		
10:00 - 12:00 am	Session 5A (Room A)	Session 5B (Room B)	Session 5C (Room C)
12:00 - 13:30 pm	Lunch		
13:30 - 14:30 pm	Industrial Presentation		
14:30 - 15:30 pm	Coffee Break and Poster Session		
15:30 - 17:30 pm	Session 6A (Room A)		Session 6C (Room C)

Day 3: July 17: Local Tour in Macau

Detailed Program of the 2010 IEEE International Conference on Networking, Architecture and Storage (NAS)

Day 1: July 15, Thursday

8:30 - 9:00 am	Welcome		
9:00 - 10:00 am	<p>Keynote Speech: Dr. Peter Braam - Modularity for clustered file data management</p> <p>Dr. Peter Braam is a thought leader in scalable storage, and runs ClusterStor, a storage company focusing on distributed storage software.</p> <p>He was the founder and CEO of Cluster File Systems, Inc., which developed the Lustre file system, which powers almost half of the worlds top 100 computers and was acquired by Sun in Oct 2007. Peter served as a vice president in Sun advising on Sun's entire storage software strategy. Peter has broad interests in storage software, numerical mathematics and software engineering. He is an adjunct professor of the Chinese Academy of Sciences and a Fellow of Merton College, Oxford University.</p> <p>He received his PhD in 1987 in pure mathematics and subsequently worked with world top scientists at Oxford where he began to teach Computer Science in 1992. He joined Carnegie Mellon's faculty in 1996 where he led the Coda project for 3 years. In 1999 he moved to the Linux industry as a Cluster and File Systems Architect for Red Hat.</p>		
10:00 - 10:30 am	Coffee break		
10:30 - 12:00 am	<p>Session 1A (Room A) - Sensor networks Session Chair: Abdullah Al-Dhelaan</p>	<p>Session 1C (Room C) - Dependable and fault-tolerant storage Session Chair: Qing Yang</p>	<p>Session 1D (Room B) - Short Papers Session Chair: Andre Brinkmann</p>
	<p>W. Cheng, N. Zhang, M. Song, D. Chen, X. Lu, and Z. Lu: <i>Time-Bounded Essential Localization for Wireless Sensor Networks</i>. J. Deng, M. Qiu, and G. Wu.: <i>Fault Tolerant Data Collection in Heterogeneous Intelligent Monitoring Networks</i>.</p>	<p>X. Chen, J. Warren, F. Han, and X. He: <i>Characterizing the Dependability of Distributed Storage Systems Using a Two-layer Hidden Markov Model-Based Approach</i>. Y. Sheng, D. Xu, and D. Wang: <i>A High Effective Indexing and Retrieval Method Providing Block-Level Timely Recovery to Any Point-In-Time</i>.</p>	<p>A. Boonyarattaphan, Y. Bai, S. Chung, and R. Poovendran: <i>Spatial-Temporal Access Control for E-health Services</i>. M.-H. Chen and C.-H. Chen: <i>Secondary User Authentication Based on Mobile Devices Location</i>. I. Jawhar, N. Mohamed, L. Zhang: <i>Inter-vehicular Communication Systems, Protocols and Middleware</i>.</p>

	<p>Y. Hu, W. Li, X. Chen, X. Chen, S. Lu, and J. Wu: <i>A Probabilistic Routing Protocol for Heterogeneous Sensor Networks.</i></p>	<p>P. Wang, D. Hu, C. Xie, J. Wang, and X. Qin. <i>A Fine-grained Data Reconstruction Algorithm for Solid State Disks.</i></p>	<p>T.Q. Ngoc, J. Lee, K.J. Gil, K. Jeong, and S.B. Lim: <i>An ESB Based Micro-scale Urban Air Quality Monitoring System.</i> G. Xue, Y. Feng, Z. Gao, G. Dai: <i>NSA: A Novel System Architecture for Ad Hoc Networks.</i> S.-H. Yang, P.-A. Hsiung: <i>Innovative Application of RFID Systems to Special Education Schools.</i> L. Zhang, W. Jia, S. Zhou: <i>Binomial Probability Redundancy Strategy for Multimedia Transmission.</i></p> <p>J.-L. Zhang, J.-W. Zhang, and L. Xu: <i>FPG-Grow: A Graph Based Pattern Grow Algorithm for Application Level IO Pattern Mining.</i> X. Zhu, W. Zhang, B. Li, and L. Zhang: <i>Symmetric Distributed Joint Source-Channel Coding Using Raptor Codes.</i></p>
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12:00 - 13:30 pm	Lunch		
13:30 - 15:30 pm	Session 2A (Room A) - Wireless Network Security Session Chair: Tim Suess	Session 2B (Room B) - Distributed Computing Session Chair: Mario Porrmann	Session 2C (Room C) - RAID storage and Error Correcting Codes Session Chair: Ben He
	Y. Wang, Z. Zhang, and J. Wu: <i>A Distributed Approach for Hidden Wormhole Detection With Neighborhood Information.</i> B. Wu and Y. Dong: <i>A Simple Group Key Management Approach for Mobile Ad Hoc Networks.</i> J. Wu, H. Chen, W. Lou, Z. Wang, and Z. Wang: <i>Label-Based DV-Hop Localization Against Wormhole Attacks in Wireless Sensor Networks.</i>	L. Bai, S. Biswas, and F. Ferrese: <i>Design of a Reliable Distributed Secure Database System.</i> X. Wang, H. Qu, L. Xu, X. Han, and J. Zhang: <i>A MAP Fitting Approach with Joint Approximation Oriented to the Dynamic Resource Provisioning in Shared Data Centres.</i> T. Zhao and S. Dong: <i>A Trust Aware Grid Access Control Architecture Based on ABAC.</i>	J.-F. Paris, T. Schwarz, A. Amer, and D. Long: <i>Improving Disk Array Reliability Through Expedited Scrubbing.</i> Y. Gao, D. Meister, and A. Brinkmann: <i>Reliability Analysis of Declustered-Parity RAID6 with Disk Scrubbing and Cosidering Irrecoverable Read Errors.</i> Q. Cao, S. Wan, C. Wu, and S. Zhan: <i>An Evaluation of Two Typical RAID-6 Codes on Online Single Disk Failure Recovery.</i> M. Nijim: <i>Modeling Speculative Prefetching for Hybrid Storage Systems.</i>
15:30 - 16:00 pm	Coffee break		

16:00 - 18:00 pm	<p>Session 3A (Room A) - Ad-hoc networks Session Chair: Imad Jawhar</p>	<p>Session 3B (Room B) - Distributed and Multi-Core Systems Session Chair: Thorsten Jungeblut</p>	<p>Session 3C (Room C) - File systems and parallel I/O Session Chair: Hong Jiang</p>
	<p>Z. Jiang, Z. Li, N. Xiao, and J. Wu: <i>CR: Capability Information for Routing of Wireless Ad Hoc Networks in the Real Environment.</i> M. Al-Rodhaan and A. Al-Dhelaan: <i>Efficient Route Discovery Algorithm for MANETs.</i> J. Wang, M. Song, and Y. Zhao: <i>Interference-Aware Multicast in Wireless Mesh Networks with Directional Antennas.</i> Y. Ge, G. Wang, and J. Wu: <i>Node-Disjoint Multipath Routing with Group Mobility in MANETs.</i></p>	<p>S. Li and Y. Luo: <i>High Performance Flow Feature Extraction with Multi-core Processors.</i> Y. Li, Y. Zhang, K. Wang, W. Guan: <i>Heterogeneous Multi-core Parallel SGEMM Performance Testing and Analysis on Cell/B.E Processor.</i> T. Liu, Y. Sun, and L. Guo: <i>Fast and Memory-Efficient Traffic Classification with Deep Packet Inspection in CMP Architecture.</i> J.M. Montanana, M. Koibuchi, H. Matsutani, and H. Amano: <i>Stabilizing Path Modification of Power-Aware On/Off Interconnection Networks.</i></p>	<p>L. Cheng, P. Shang, S. Serish, G. Mackey and J. Wang: <i>Concentric layout: a new scientific data distribution scheme in Hadoop file system.</i> H. Liao, J. Han, and J. Fang: <i>Multi-dimensional Index on Hadoop Distributed File System.</i> Z. Shi, D. Feng, H. Zhao, and L. Zeng: <i>USP: A Lightweight File System Management Framework.</i> Y. Zhu, Y. Yu, Y. Wang, S. Tan, and T.C. Low: <i>A Balanced Allocation Strategy for File Assignment in Parallel I/O Systems.</i></p>
20:00 - 22:00 pm	Banquet Dinner		

Day 2: July 16, Friday

8:30 - 9:30 am	<p>Keynote Speech: Dr. Almadena Y. Chtchelkanova - Cyberinfrastructure Framework for Scientific Discovery and Engineering Innovations</p> <p>Dr. Almadena Chtchelkanova is a Program Director at the Directorate for Computer and Information Science and Engineering at the National Science Foundation. Dr. Chtchelkanova is in charge of the areas of High Performance Computing, Compilers, and Parallel and Distributed Algorithms. She is a Lead Program Director and inter-agency coordinator for High End Computing University Research Activity (HECURA).</p> <p>Before joining NSF in 2005 Dr. Chtchelkanova worked for Strategic Analysis, Inc. as a Senior Scientist providing technical support to Defense Advanced Research Program Agency (DARPA).</p> <p>Dr. Chtchelkanova spent four years working at the Laboratory for Computational Physics and Fluid Dynamics at the Naval Research Laboratory located in Washington, DC. Dr. Chtchelkanova has considerable experience in the area of High Performance Computing (HPC) applications. She developed and implemented portable, scalable, parallel adaptive mesh generation algorithms for computational fluid dynamics, weather forecast, combustion and contaminant transport.</p> <p>Dr. Chtchelkanova holds an MA degree from the Department of Computer Sciences at the University of Texas at Austin (1996) and a Ph.D. degree in physics from Moscow State University in Russia (1988).</p>
9:30 - 10:00 am	Coffee break

10:00 - 12:00 am	Session 5A (Room A) - WiFi, Vehicular, and Delay Tolerant Networks Session Chair: Mznah Al-Rodhaan	Session 5B (Room B) - Memory Systems for Chip Multiprocessors Session Chair: Jason Ding	Session 5C (Room C) - Deduplication and Object-Based Storage Session Chair: Yan Gao
	F. Cuckov and M. Song: <i>Geocast-Driven Structureless Information Dissemination Scheme for Vehicular Ad Hoc Networks</i> . F. Li, Y. Yang, J. Wu, and X. Zou: <i>Fuzzy Closeness-based Delegation Forwarding in Delay Tolerant Networks</i> . X. Lu and P. Hui: <i>An Energy-Efficient n-Epidemic Routing Protocol for Delay Tolerant Networks</i> . L. Liao, W. Chen, C. Zhang, L. Zhang, and W. Jia: <i>Wireless Access Point Deployment for Both Coverage and Localization</i> .	J. Zhang, K.-Z. Mei, and J.-Z. Zhao: <i>An Adaptive and Selective Instruction Active Push Mechanism for Multi-Core Architecture</i> . C. Li, H. Wang, Y. Xue, X. Zhang, and D. Wang: <i>Fast Hierarchical Cache Directory: A Scalable Cache Organization for Large-scale CMP</i> . T. Jungeblut, G. Sievers, M. Porrmann, and U. Rueckert: <i>Design Space Exploration for Memory Subsystems of VLIW Architectures</i> . J. Zhang, K.-Z. Mei, and J.-Z. Zhao: <i>Filtering Cache Pollution by Using Replacement Operation Based on Confidence Estimation</i> .	L. Ma, C. Zhen, B. Zhao, J. Ma, G. Wang, and X. Liu: <i>Towards Fast De-duplication Using Low Energy Coprocessor</i> . Y. Tan, D. Feng, Z. Yan, and G. Zhou: <i>DAM: A DataOwnership-Aware Multi-Layered De-duplication Scheme</i> . Q. Wei, B. Veeravalli, and Z. Li: <i>Dynamic Replication Management for Object-based Storage System</i> . T. Xudong, F. Dan and T. Zhipeng: <i>EDOS: Employing Mini-DB for High Semantic Object Store</i> .
12:00 - 13:30 pm	Lunch		
13:30 - 14:30 pm	Industrial Presentation		
14:30 - 15:30 pm	Coffee Break and Poster Session		

15:30 - 17:30 pm	<p>Session 6A (Room A) - Not quite wireless networks Session Chair: Feng Li</p>	<p>Session 6C (Room C) - Solid State Disk Storage Session Chair: Andre Brinkmann</p>
	<p>Y. Nishikawa, M. Koibuchi, H. Matsutani, and H. Amano: <i>A Deadlock-free Non-minimal Fully Adaptive Routing using Virtual Cut-through Switching.</i> Y. Ruan, W. Yang, M. Chen, X. Zhao, and J. Fan: <i>Robust TCP Reassembly with a Hardware-based Solution for Backbone Traffic.</i> T. Suess, T. Wieseemann, and M. Fischer: <i>Evaluation of a c-Load-Collision-Protocol for Load-Balancing in Interactive Environments.</i> J. Lin, X. Lu, L. Yu, Y. Zou, and L. Zha: <i>VegaWarden: A Uniform User Management System for Cloud Applications.</i></p>	<p>Y. Wang, K. Goda, M. Nakano, and M. Kitsuregawa: <i>Early Experience and Evaluation of File Systems on SSD with Database Applications.</i> F. Wu, X. Chen, and J. Wan: <i>Cache Blocks: An Efficient Scheme for Solid State Drives without DRAM Cache.</i> F. Wu, L. Wang, and J. Wan: <i>An low cost and inner-round pipelined design of ECB-AES-256 crypto engine for Solid State Disk.</i> L. Yang, J. Huang, C. Xie and Q. Cao: <i>RAF: A Random Access First Cache Management to Improve SSD-based Disk Cache.</i></p>

Day 3: July 17, Saturday

Local Tour in Macau