

ICDCS 2006

The 26th International Conference on Distributed Computing Systems

July 4-7, 2006 - Lisboa, Portugal

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Program-at-a-Glance

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|---------|---------|---|--|--|
| 4th Tue | All Day | Workshops: ADSN, DABI, IWDDS, DEBS, IBC, MNSA, IWSAWC, SIUMI, P2P/DAKS, WWASN (See schedule on page 6) | | |
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|---------------|--------------|---|-------------------------------------|--|
| 5th Wednesday | 8:45-10:00 | Welcome & Keynote 1: Prof. Willy Zwaenepoel | | |
| | Coffee break | | | |
| | 10:30-12:00 | Session 1A: Middleware | Session 1B: Network Optimization | Session 1C: Autonomic Computing |
| | Lunch | | | |
| | 13:30-15:00 | Session 2A: Security | Session 2B: Peer-to-Peer I | Session 2C: Fault-Tolerance |
| | Coffee break | | | |
| | 15:30-17:00 | Session 3A: Distributed Processing I | Session 3B: Publish-Subscribe | Session 3C: Web and Collaborative Systems |
| | 17:30-18:30 | Panel | | |
| 18:30-20:00 | Reception | | | |

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|--------------|--------------|--|---|--|
| 6th Thursday | 9:00-10:00 | Keynote 2: Krishan Sabnani | | |
| | Coffee break | | | |
| | 10:30-12:00 | Session 4A: Distributed Processing II | Session 4B: Storage | Session 4C: Byzantine Fault-Tolerance |
| | Lunch | | | |
| | 13:30-15:00 | Session 5A: Countering Attacks | Session 5B: Consistency and Cache Management | Session 5C: Content Delivery |
| | Coffee break | | | |
| | 15:50-17:30 | Session 6A: Routing in MANETs | Session 6B: Sensor Networks | Session 6C: Networks |
| | 19:00-22:00 | Banquet | | |

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|-------------|--------------|---|----------------------------------|---|
| 7th Friday | 9:00-10:00 | Keynote 3: Amir Herzberg | | |
| | Coffee break | | | |
| | 10:30-12:00 | Session 7A: Secure Communication | Session 7B: Wireless Networks | Session 7C: Peer-to-Peer II |
| | Lunch | | | |
| | 13:30-15:00 | Session 8A: Reliable and Secure Sensor Networks | Session 8B: Streaming | Session 8C: Network Characterization |
| | Coffee break | | | |
| 15:30-17:00 | | | | |

Wednesday, 5th July: ICDCS Technical Sessions

8:45 Welcome

9:00-10:00 Keynote 1: Professor Willy Zwaenepoel

10:00-10:30 Coffee break

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|-------------|---|---|---|
| 10:30-12:00 | Session 1A: Middleware | Session 1B: Network Optimization | Session 1C: Autonomic Computing |
| | Analysis of the Message Waiting Time for the FioranoMQ JMS Server | A Loss and Queuing Delay Controller for Router Buffer Management | Autonomic Management of Stream Processing Applications via Adaptive Bandwidth Control |
| | Highly Available Long Running Transactions and Activities for J2EE Applications | The Confluent Capacity of the Internet: Congestion vs. Dilation | SysProf: Online Distributed Behavior Diagnosis through Fine-grain System Monitoring |
| | A Bridging Framework for Universal Interoperability in Pervasive Systems | FastFlow: Architecture and Algorithm for Accurate Traffic Flow Characterization | A Hierarchical Optimization Framework for Autonomic Performance Management of Distributed Computing Systems |

12:00-13:30 Lunch

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| 13:30-15:00 | Session 2A: Security | Session 2B: Peer-to-Peer I | Session 2C: Fault-tolerance |
| | Loud And Clear: Human-Verifiable Authentication Based on Audio. | WhoPay: A Scalable and Anonymous Payment System for Peer-to-Peer Environments. | Computing in the Presence of Timing Failures. |
| | Design and Performance Evaluation of a Proxy-based Java Rewriting Security System. | Robust Accounting in Decentralized P2P Storage Systems. | Failures Classification and Analysis of the Java Virtual Machine. |
| | Store, Forget, and Check: Using Algebraic Signatures to Check Remotely Administered Storage | Elastic Routing Table with Probable Performance for Congestion Control in DHT Networks | Efficient Incremental Optimal Chain Partition of Distributed Program Traces |

15:00-15:30 Coffee break

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|-------------|---|---|---|
| 15:30-17:00 | Session 3A: Distributed Processing I | Session 3B: Publish-Subscribe | Session 3C: Web and Collaborative Systems |
| | An Empirical Evaluation of Work Stealing with Parallelism Feedback. | A Semantic Overlay for Self-* Peer-to-Peer Publish/Subscribe. | Controlling Quality of Service in Multi-Tier Web Applications. |
| | Load Unbalancing to Improve Performance under Autocorrelated Traffic. | PastryStrings: A Comprehensive Content-Based Publish/Subscribe DHT Network. | File System Support for Collaboration in the Wide Area. |
| | Scalable Parallel Algorithm and Implementation for Biclustering over Large Distributed Datasets | Utility Optimization for Event-Driven Distributed Infrastructures. | A Secure and Efficient Large Scale Distributed System for Object Sharing. |

Break

17:30-18:30 Panel

18:30-19:30 Reception

Thursday, 6th July: ICDCS Technical Sessions

9:00-10:00 Keynote 2: Krishan Sabnani

10:00-10:30 Coffee break

10:30-12:00
Session 4A: Distributed Processing II
 Distributed Computing for Efficient Hyperspectral Imaging Using Fully Heterogeneous Networks of Workstations.
 On Scheduling Expansive and Reductive Dags for Internet-Based Computing.
 Reputation-Based Scheduling on Unreliable Distributed Infrastructures.

Session 4B: Storage
 On Store Placement for Response Time Minimization in Parallel Disks.
 PRINS: Optimizing Performance of Reliable Internet Storages.
 Genesis: A Scalable Self-evolving Root-cause Analysis Framework for Storage Systems.

Session 4C: Byzantine Fault-tolerance.
 Tolerating Byzantine Faulty Clients in a Quorum System.
 Sharing Memory between Byzantine Processes using Policy-Enforced Tuple Spaces.
 Practical Byzantine Group Communication

12:00-13:30 Lunch

13:30-15:00
Session 5A: Countering Attacks
 Spoof Detection for Preventing DoS Attacks against DNS Servers.
 Provenance-Aware Tracing of Worm Break-in and Contaminations: A Process Coloring Approach.
 A DoS Resilient Flow-level Intrusion Detection Approach for High-speed Networks.

Session 5B: Consistency and Cache Management.
 Maintaining Strong Cache Consistency for Domain Name System.
 Application-Tailored Cache Consistency for Wide-Area File Systems.
 COCA: A Locality-Aware Cooperative Cache Management Protocol to Improve Network File System Performance

Session 5C: Content Delivery.
 Efficient Formation of Edge Cache Groups for Dynamic Content Delivery.
 Content-based Dissemination of Fragmented XML Data.
 Crew: A Gossip-based Flash-Dissemination System

15:00-15:30 Coffee break

15:30-17:30
Session 6A: Routing in MANETs
 Analysis of Clustering and Routing Overhead for Clustered Mobile Ad Hoc Networks.
 Mitigating the Flooding Waves Problem in Energy-Efficient Routing for MANETs.
 High-Throughput Multicast Routing Metrics in Wireless Mesh Networks.
 GMP: Distributed Geographic Multicast Routing in Wireless Sensor Networks.

Session 6B: Sensor networks
 Scalable and robust aggregation techniques for extracting statistical information in sensor networks.
 Distributed Minimal Time Convergecast Scheduling in Wireless Sensor Networks.
 In-Network Outlier Detection in Wireless Sensor Networks.
 POS: A Practical Order Statistics Service for Wireless Sensor Networks.

Session 6C: Networks.
 Overlay Multicast with Inferred Link Capacity Correlations.
 On Estimating Tight Link Bandwidth Characteristics over Multi-Hop Paths.
 Interplay of ISPs: Distributed Resource Allocation and Revenue Maximization.
 Routing in Networks with Low Doubling Dimension.

19:00-22:00 Banquet

Friday, 7th July: ICDCS Technical Sessions

9:00-10:00 Keynote 3: Amir Herzberg

10:00-10:30 Coffee break

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| 10:30-12:00 | <p>Session 7A: Secure Communication.</p> <p>Fast data access over asymmetric channels using fair and secure bandwidth sharing.</p> <p>M2: Multicasting Mixes for Efficient and Anonymous Communication.</p> <p>Dynamic Access Control in a Content-based Publish/Subscribe System with Delivery Guarantees.</p> | <p>Session 7B: Wireless Networks.</p> <p>On the Access Pricing and Network Scaling Issues of Wireless Mesh Networks.</p> <p>Modeling and Analysis of Generalized Slotted-Aloha MAC Protocols in Cooperative, Competitive and Adversarial Environments.</p> <p>Detecting MAC Layer Back-off Timer Violations in Mobile Ad Hoc Networks</p> | <p>Session 7C: Peer-to-peer II.</p> <p>Delay-Bounded Range Queries in DHT-based Peer-to-Peer Systems.</p> <p>Search-and-Discover in Mobile P2P Network Databases.</p> <p>Improving Traffic Locality in BitTorrent via Biased Neighbor Selection.</p> |
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12:00-13:30 Lunch

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|-------------|--|---|---|
| 13:30-15:00 | <p>Session 8A: Reliable and secure sensor networks.</p> <p>Self-Protections for Sensor Networks.</p> <p>Sluice: Secure Dissemination of Code Updates in Sensor Networks.</p> <p>Fault-Tolerant Clustering in Ad Hoc and Sensor Networks.</p> | <p>Session 8B: Streaming.</p> <p>ASAP: an AS-Aware Peer-Relay Protocol for High Quality VoIP with Low Overhead.</p> <p>Adaptive Control of Extreme-Scale Stream Processing Systems.</p> <p>Geedy is Good: On Service Tree Placement for In-Network Stream Processing.</p> | <p>Session 8C: Network Characterization.</p> <p>A Hierarchical Approach to Internet Distance Prediction.</p> <p>Stable and Accurate Network Coordinates.</p> <p>Cycling Through a Dangerous Network: A Simple Efficient Strategy for Black Hole Search.</p> |
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Conference Ends

Workshops-at-a-Glance

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|-------------------------|--------------|--------|--------|-------|----------------|----------------|-------|-------|----------|
| 4 th Tuesday | 8:00-10:00 | MNSA | IWSAWC | ADSN | WWASN | IWDDS/ DABI | DEBS | IBC | P2P/DAKS |
| | Coffee break | | | | | | | | |
| | 10:30-12:30 | MNSA | IWSAWC | ADSN | WWASN | IWDDS/ DABI | DEBS | IBC | P2P/DAKS |
| | Lunch | | | | | | | | |
| | 13:30-15:30 | MNSA | IWSAWC | ADSN | WWASN | IWDDS/ DABI | DEBS | SIUMI | |
| Coffee break | | | | | | | | | |
| 16:00-18:00 | MNSA | IWSAWC | ADSN | WWASN | IWDDS/ DABI | DEBS | SIUMI | | |

ADSN: International Workshop on Assurance in Distributed Systems and Networks

IWDDS: International Workshop on Dynamic Distributed Systems

DABI: International Workshop on Distributed Applications for B2B Integration

DEBS: The 5th International Workshop on Distributed Event-Based Systems

IBC: Second International Workshop on Incentive-Based Computing

MNSA: The 8th International Workshop on Multimedia Network Systems and Applications

IWSAWC: The 6th International Workshop on Smart Appliances and Wearable Computing

SIUMI: Second International Workshop on Services and Infrastructure for the Ubiquitous and Mobile Internet

P2P/DAKS: Workshop on P2P Data and Knowledge Sharing

WWASN: Workshop on Wireless Ad hoc and Sensor Networks