

## Trabajos Sistemas Distribuidos 2008

Ricardo Jiménez-Peris, Marta Patiño-Martínez,  
Ernesto Jiménez-Merino  
Distributed  
 Systems  
Laboratory  
Universidad Politécnica de Madrid (UPM)  
<http://lsd.ls.fi.upm.es/lsd/lsd.htm>

## Replicación

- **Tashkent+: Memory-Aware Load Balancing and Update Filtering in Replicated Databases.**
  - Sameh Elnikety, Steven Dropsho and Willy Zwaenepoel.
  - *EuroSys 2007, Lisbon, Portugal, March 2007.*
- **Predicting Replicated Database Speedup from Standalone Database Measurements: Single-Master vs. Multi-Master**
  - Sameh Elnikety, Steven Dropsho and Willy Zwaenepoel.
  - *available as technical report, Nov 2006.*
- **Tashkent: Uniting Durability with Transaction Ordering for High-Performance Scalable Database Replication.**
  - Sameh Elnikety, Steven Dropsho and Fernando Pedone.
  - *EuroSys 2006, Leuven, Belgium, April 2006.*

## Replicación

- **Database Replication Policies for Dynamic Content Applications.**
  - Gokul Soundararajan, Cristiana Amza, Ashvin Goel.
  - *ACM SIGOPS EuroSys, April 2006*
- **Fast and Transparent Recovery for Continuous Availability of Cluster-based Servers.**
  - Rosalia Christodouloupoulou, Kaloian Manassiev, Angelos Bilas and Cristiana Amza.
  - *SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP 2006), 2006*
- **Transparent Caching with Strong Consistency in Dynamic Content Web Sites.**
  - C. Amza, G. Soundararajan and E. Cecchet.
  - *ACM Int. Conf. on Supercomputing (ICS), June 2005*

## Replicación

- **Chain Replication for Supporting High Throughput and Availability.**
  - Robbert van Renesse, Fred B. Schneider.
  - *USENIX Symposium on Operating Systems Design and Implementation (OSDI '04), San Francisco, California, December 2004.*
- **Replication and Transactions for the End-to-End Reliability of CORBA Applications.**
  - Pascal Felber, Priya Narasimhan: Reconciling
  - *CoopIS/DOA/ODBASE 2002: 737-754*
- **Using Program Analysis to Identify and Compensate for Nondeterminism in Fault-Tolerant, Replicated Systems.**
  - Joseph G. Slember, Priya Narasimhan:
  - *SRDS 2004: 251-263*

## Replicación

- **Fault Diversity among Off-The-Shelf SQL Database Servers.**
  - I. Gashi, P. Popov, L. Strigini.
  - *IEEE Int. Conf. on Dependable Systems and Networks (DSN), 2004.*
- **Beyond 1-Safety and 2-Safety for replicated databases: Group-Safety.**
  - Matthias Wiesmann and André Schiper.
  - *In Proceedings of the 9th International Conference on Extending Database Technology (EDBT2004), Heraklion - Crete - Greece, March 2004.*

## Transacciones

- **Sprint: A Middleware for High-Performance Transaction Processing**
  - L. Camargos, F. Pedone and M. Wieloch
  - *2nd European Conference on Systems Research (EuroSys'2007)*
- **A Highly Available Log Service for Distributed Transaction Termination**
  - L. Camargos, F. Pedone and M. Wieloch
  - *USI Technical Report 2006/08*

## Memoria Transaccional

- A Lazy Snapshot Algorithm with Eager Validation.
  - T. Riegel, P. Felber, C. Fetzer.
  - DISC 2006
- Optimizing Memory Transactions.
  - T. Harris, M. Plesko, A. Shinnar, D. Tarditi.
  - PLDI 2006
- Transactional Locking II.
  - D. Dice, O. Shalev, N. Shavit.
  - DISC 2006

7

Laboratório de Sistemas Distribuídos, Universidade Federal de Minas Gerais



## Memoria Transaccional

- Exploiting Distributed Version Concurrency in a Transactional Memory Cluster.
  - Kaloian Manassiev, Madalin Mihailescu and Cristiana Amza.
  - SIGPLAN Symposium on Principles and Practice of Parallel Programming (PPoPP 2006).
- Software Transactional Memory for Dynamic-Sized Data Structures.
  - M. Herlihy, V. Luchangco, M. Moir, W.N. Scherer.
  - PODC 2003
- Nested Transactional Memory: Model and Architecture Sketches.
  - J.E. Moss, A.L. Hosking.
  - SCOOOL 2005

8

Laboratório de Sistemas Distribuídos, Universidade Federal de Minas Gerais



## Software as a Service (SaaS)

- **The Google File System**
  - Sanjay Ghemawat, Howard Gobioff, and Shun-Tak Leung
  - 19th ACM Symposium on Operating Systems Principles, Lake George, NY, October, 2003.
- **Bigtable: A Distributed Storage System for Structured Data**
  - Fay Chang, Jeffrey Dean, Sanjay Ghemawat, et al.
  - OSDI'06: Seventh Symposium on Operating System Design and Implementation, November, 2006.

9

Laboratório de Sistemas Distribuídos, Universidade Federal de Minas Gerais



## Stream Processing

- High-Availability Algorithms for Distributed Stream Processing.
  - Jeong-Hyon Hwang, Magdalena Balazinska, Alex Rasin, Ugur Çetintemel, Michael Stonebraker, Stanley B. Zdonik:
  - ICDE 2005: 779-790
- Load Management and High Availability in the Medusa Distributed Stream Processing System.
  - Magdalena Balazinska, Hari Balakrishnan, Michael Stonebraker:
  - SIGMOD Conference 2004: 929-930
- Aurora: a new model and architecture for data stream management.
  - Daniel J. Abadi, Donald Carney, Ugur Çetintemel, Mitch Cherniack, Christian Convey, Sangdon Lee, Michael Stonebraker, Nesime Tatbul, Stanley B. Zdonik:
  - VLDB J. 12(2): 120-139 (2003)

10

Laboratório de Sistemas Distribuídos, Universidade Federal de Minas Gerais



## Byzantine Fault-Tolerance

- Practical byzantine fault tolerance and proactive recovery.
  - Miguel Castro, Barbara Liskov:
  - ACM Trans. Comput. Syst. 20(4): 398-461 (2002)
- BASE: Using abstraction to improve fault tolerance.
  - Miguel Castro, Rodrigo Rodrigues, Barbara Liskov:
  - ACM Trans. Comput. Syst. 21(3): 236-269 (2003)
- Intrusion-Tolerant Middleware: the MAFTIA approach. Computer Science Department.
  - Paulo E. Veríssimo, Nuno F. Neves, Christian Cachin, Jonathan Poritz, David Powell, Yves Deswarte, Robert Stroud, Ian Welch.
  - Faculdade de Ciências da Universidade de Lisboa, Portugal. Technical Report TR-04-14. Nov. 2004

11

Laboratório de Sistemas Distribuídos, Universidade Federal de Minas Gerais



## Autonomic Computing

- Autonomic Provisioning of Backend Databases in Dynamic Content Web Servers.
  - Jin Chen, Gokul Soundararajan and Cristiana Amza.
  - 3rd IEEE Int. Conf. on Autonomic Computing (ICAC 2006).
- Locality Aware Dynamic Load Management for Massively Multiplayer Games.
  - Jin Chen, Baohua Wu, Margaret Delap, Bjorn Knutsson, Honghui Lu and Cristiana Amza.
  - ACM Symp. on Principles and Practice of Parallel Programming (PPoPP 2005).
- Adding High Availability and Autonomic Behavior to Web Services.
  - Kenneth P. Birman, Robbert van Renesse, Werner Vogels:
  - ICSE 2004: 17-26
- Astrolabe: A robust and scalable technology for distributed system monitoring, management, and data mining.
  - Robbert van Renesse, Kenneth P. Birman, Werner Vogels:
  - ACM Trans. Comput. Syst. 21(2): 164-206 (2003)

12

Laboratório de Sistemas Distribuídos, Universidade Federal de Minas Gerais

