

Ken Birman

University Activities, including PhD students graduated

- Graduated Students:
 - Mahesh Balakrishnan
 - Krzysztof Ostrowski
- Chairman, CIS Building Committee

Professional Activities

- 5th IEEE International Conference on Autonomic Computing (ICAC 2008)
- Second IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2008)
- 2nd International Conference on Distributed Event-Based Systems (DEBS 2008)
- International Conference on Distributed Computing Systems (ICDCS 2008)
- Symposium on Networked Systems Design and Implementation (NSDI 2008)

Publications

- Using Live Distributed Objects for Office Automation. Jong Hoon Ahnn, Ken Birman, Krzysztof Ostrowski, Robbert van Renesse. In proceedings of the ACM/IFIP/USENIX 9th International Middleware Conference. Leuven, Belgium. December 2008.
- Dr. Multicast: Rx for Datacenter Communication Scalability. Ymir Vigfusson, Hussam Abu-Libdeh, Mahesh Balakrishnan, Ken Birman, Yoav Tock. HotNets VII: Seventh ACM Workshop on Hot Topics in Networks. October 6-7, 2008. Calgary, Canada.
- Bosco: One-Step Byzantine Asynchronous Consensus. Yee Jiun Song, Robbert van Renesse. The 22nd International Symposium on Distributed Computing (DISC 2008), Arcachon, France, September, 2008.
- Sliver: A Fast Distributed Slicing Algorithm (Brief Announcement). Vincent Gramoli, Ymir Vigfusson, Ken Birman, Anne-Marie Kermarrec, Robbert van Renesse. Principles of Distributed Computing (PODC). Toronto, Canada. August 2008.
- QuickSilver Scalable Multicast (QSM). Krzysztof Ostrowski, Ken Birman, Danny Dolev. 7th IEEE International Symposium on Network Computing and Applications (IEEE NCA 2008). Cambridge, MA. July 2008.
- Programming with Live Distributed Objects. Krzysztof Ostrowski, Ken Birman, Danny Dolev, and Jong Hoon Ahnn. In Proceedings of the 22nd European Conference on Object-Oriented Programming (ECOOP 2008). Cyprus. July 2008. J. Vitek, Ed. Lecture Notes In Computer Science, vol. 5142. Springer-Verlag, Berlin, Heidelberg, 463-489.
- Supporting Scalability and Adaptability via ADaptive Middleware And Network Transports (ADAMANT) Joe Hoffert, Douglas Schmidt, Mahesh Balakrishnan, Ken Birman. OMG Workshop on Distributed Object Computing for Real-time and Embedded Systems. July 2008, Washington DC.
- SENSTRAC: Scalable Querying of SENSOR Networks from Mobile Platforms Using TRACKing-Style Queries. Stefan Pleisch and Ken Birman. International Journal of Sensor Networks. Volume 3, Issue 4. Pages 266-280. June 2008.
- Tempest: Soft State Replication in the Service Tier. Tudor Marian, Mahesh Balakrishnan, Ken Birman, Robbert van Renesse. In Proceedings of the 38th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN-DCCS 2008), June 2008, Anchorage, AL.
- Maelstrom: Transparent Error Correction for Lambda Networks. Mahesh Balakrishnan, Tudor Marian, Ken Birman, Hakim Weatherspoon, Einar Vollset. *USENIX Symposium on Networked System Design and Implementation (NSDI 08)*. April 2008.

- Tempest: Soft State Replication in the Service Tier. Tudor Marian, Mahesh Balakrishnan, Ken Birman, Robbert van Renesse. Accepted to *DSN-DCSS 2008: 38th Annual IEEE/IFIP International Conference on Dependable Systems and Networks*, Anchorage, AL. June 24-27, 2008
- Programming with Live Distributed Objects. Krzysztof Ostrowski, Ken Birman, Danny Dolev, and Jong Hoon Ahnn. *22nd European Conference on Object-Oriented Programming (ECOOP 2008)*. Cyprus. July 2008.
- QuickSilver Scalable Multicast (QSM). Krzysztof Ostrowski, Ken Birman, Danny Dolev. *7th IEEE International Symposium on Network Computing and Applications (IEEE NCA 2008)*. Cambridge, MA. July 2008.
- Sliver: A Fast Distributed Slicing Algorithm. Vincent Gramoli, Ymir Vigfusson, Ken Birman, Anne-Marie Kermarrec, Robbert van Renesse. *Technical Report*. December 2007
- Declarative Reliable Multi-Party Protocols Krzysztof Ostrowski, Ken Birman, Danny Dolev. *Cornell University Technical Report (TR2007-2088)*. April, 2007.
- Implementing High-Performance Multicast in a Managed Environment Krzysztof Ostrowski, Ken Birman, Danny Dolev. *Cornell University Technical Report (TR2007-2088)*. April, 2007.
- Exploiting Gossip for Self-Management in Scalable Event Notification Systems. Ken Birman, Anne-Marie Kermarrec, Krzysztof Ostrowski, Marin Bertier, Danny Dolev, Robbert Van Renesse. *Distributed Event Processing Systems and Architecture Workshop (DEPSA)*. June 2007.
- Active and Passive Techniques for Group Size Estimation in Large-Scale and Dynamic Distributed Systems. Dionysios Kostoulas, Dimitrios Psaltoulis, Indranil Gupta, Ken Birman, Al Demers. To Appear in the *Journal of Systems and Software*, 2007.
- Extensible Architecture for High-Performance, Scalable, Reliable Publish-Subscribe Eventing and Notification. Krzysztof Ostrowski, Ken Birman, and Danny Dolev. To Appear in the *International Journal of Web Services Research*. Volume 4, Number 4, Pgs 15-58. October-December 2007.

Lectures

- Keynote Speaker, 5th IEEE International Conference on Autonomic Computing, Chicago, IL. June 2008.
- Invited Speaker, Hebrew University. January 2008.
- Wunsch Distinguished Lecture, Technion University. January 2008.
- Distinguished Lecture, CISCO Systems, Technology Visionary Distinguished Lecture, December 2007.