

List of Publications: 2004 to date: Kanad Ghose

(not very complete but pretty close!!)

Journals:

1. *Protecting GRIDftp Transfers with Active Network Portals*, by Onur Demir, Michael R. Head, Kanad Ghose and Madhusudhan Govindaraju, to appear in the Journal of High Performance Computing, Special Issue on Grid Computing, 2006.
2. *Instruction Packing: Toward Fast and Energy-Efficient Instruction Scheduling*, by Joseph Sharkey, Dmitry Ponomarev, Kanad Ghose, Oguz Ergin, in ACM Transactions on Architecture and Code Optimization (ACM TACO), Vol.3, No.2, June 2006, pp.156-181.
3. *Dynamic Resizing of Superscalar Datapath Components for Energy-Efficiency*, by Dmitry Ponomarev, Gurhan Kucuk, Kanad Ghose, in the IEEE Transactions on Computers, Volume 55, No 2, February 2006, pp.199-213.
4. *Early Register Deallocation Mechanisms Using Checkpointed Register Files*. By Oguz Ergin, Deniz Balkan, Dmitry Ponomarev, Kanad Ghose, in IEEE Transactions on Computers, vol.55, No 9, pp.1153-1166, September 2006.
5. *Reducing Register Renaming Energy in Superscalar Processors*, by Gurhan Kucuk, Oguz Ergin, Kanad Ghose and Dmitry Ponomarev, in the IEE Proceedings, Computer and Digital Techniques, Volume 152, Issue 6, November 2005, pp.739-746.
6. *Isolating Short-Lived Operands for Energy Reduction*, by Dmitry Ponomarev, Gurhan Kucuk, Oguz Ergin, Kanad Ghose, IEEE Transactions on Computers, vol. 53, No. 6, June 2004, pp. 697-709. .
7. *Complexity-Effective Reorder Buffer Designs for Superscalar Processors*, by Gurhan Kucuk, Dmitry Ponomarev, Oguz Ergin, Kanad Ghose, IEEE Transactions on Computers, vol.53, No. 6, June 2004, pp. 653-665.
8. *Energy-Efficient Comparators for Superscalar Datapaths*, by Dmitry Ponomarev, Gurhan Kucuk, Oguz Ergin, Kanad Ghose, IEEE Transactions on Computers, vol.53, No. 7, July 2004, pp. 892-904.

Peer-Reviewed Conferences – acceptance rates of about 25% or lower

9. *hFS: AHybrid File System Prototype for Improving Small File and Metadata Performance*, by Zhihui Zhang and Kanad Ghose, to appear in Proc. of ACM EuroSys Conference, March 2007.
10. *SPARTAN: Speculative Avoidance of Register Allocations to Transient Values for Performance and Energy-Efficiency* by Deniz Balkan, Joseph Sharkey, Dmitry Ponomarev, Kanad Ghose, in Proc. of the 15th IEEE/ACM International Conference on Parallel Architectures and Compilation Techniques (PACT'06), Seattle, WA, September 2006, pp. 265-274.

11. *Trade-offs in Transient Fault Recovery Schemes for Redundant Multithreaded Processors*, by Joseph Sharkey, Nayef Abu-Ghazaleh, Dmitry Ponomarev, Kanad Ghose, Aneesh Aggarwal, in the Proc. of the 13th IEEE International Conference on High Performance Computing (HiPC'06), Bangalore, India, December 2006, pp.135-147.
12. *Register File Caching for Energy Efficiency*, by Hui Zeng and Kanad Ghose, in the Proc. of the IEEE/ACM International Symposium on Low Power Electronics and Design (ISLPED'06), October 2006, pp. 244-249.
13. *Selective Writeback: Exploiting Transient Values for Energy-Efficiency and Performance*, by Deniz Balkan, Joseph Sharkey, Dmitry Ponomarev, Kanad Ghose, in Proc. of the IEEE/ACM International Symposium on Low Power Electronics and Design (ISLPED'06), October 2006, pp. 37-42.
14. *Incremental Commit Groups for Non-Atomic Trace Processing*, by Matt T. Yourst and Kanad Ghose, in Proc. 38th IEEE/ACM Symposium on Microarchitecture (MICRO-2005), Barcelona, November 2005, pp.67-80.
15. *Protecting Grid Data Transfer Services with Active Network Interfaces*, by Onur Demir, Michael R. Head, Kanad Ghose, Madhusudhan Govindaraju, Proc. 6-th IEEE Grid Computing Workshop, 2005. (Although called a “workshop”, this is fully peer-reviewed based on the submission of a complete paper and had an acceptance rate of 16% for 2005.)
16. *Power-Efficient Wakeup Tag Broadcast*, by Joseph Sharkey, Kanad Ghose, Dmitry Ponomarev, Oguz Ergin, in Proc. 23rd IEEE International Conference on Computer Design (ICCD'05), San Jose, CA, October 2005, pp. 654-661.
17. *Instruction Packing: Reducing Power and Delay of the Dynamic Scheduling Logic*, by Joseph Sharkey, Dmitry Ponomarev, Kanad Ghose, Oguz Ergin, in the Proc. ACM/IEEE International Symposium on Low Power Electronics and Design (ISLPED 05), August 2005, pp. 30-35.
18. *Improving Transaction Server Performance under Heavy Loads with Differentiated Service and Active Network Interface*, by Onur Demir and Kanad Ghose, in Proc. IEEE Int'l. Symposium on Network Computing and Applications, July 2005.
19. *Real-Time Protection against DDoS Attacks Using Active Gateways*, by Onur Demir and Kanad Ghose, in Proc. Security in Distributed Computing Systems, April, 2005.
20. *Register Packing: Exploiting Narrow-Width Operands for Reducing Register File Pressure*, by Oguz Ergin, Deniz Balkan, Kanad Ghose, Dmitry Ponomarev, in Proc. 37th IEEE/ACM International Symposium on Microarchitecture (MICRO-37), Portland, OR, December 2004, pp. 304-315.
21. *Maintaining Useful Server Throughput under Load Attacks Using Active NIC Portals*, in Proc. IEEE Globecom 2004 - Security and Network Management Track, by Onur Demir and Kanad Ghose, pp 202-207.
22. *Increasing Processor Performance Through Early Register Release*, by Oguz Ergin, Deniz Balkan, Dmitry Ponomarev, Kanad Ghose, in Proc. 22nd IEEE International Conference on

Computer Design (ICCD'04), October 2004, pp. 480-487.

23. *Fast Remote Isosurface Visualization With Chessboarding*, by Alisa Neeman, Peter D. Sulatycke and Kanad Ghose, in Proceedings of Eurographics Symposium on Parallel Graphics and Visualization (EGPGV04) (2004), pp. 75-82.

Weakly Reviewed Workshops/Conferences

24. *Securing Grid Data Transfer Services with Active Network Portals*, by Onur Demir, Michael R. Head, Kanad Ghose and Madhusudhan Govindaraju, to appear at the 8-th PDPS-PDSEC07: Workshop on Parallel and Distributed Scientific and Engineering Computing, held in conjunction with the 21st International Parallel and Distributed Processing Symposium (IPDPS-07).
25. *Comparative Analysis of Microchannel Cooling Schemes Subject to a Pressure Constraint*, Dylan Farnam, Bahgat Sammakia, Harold Ackler and Kanad Ghose, to appear in Proc. of the 5th International Conference on Nanochannels, Microchannels and Minichannels, ICNMM, July 2007.
26. *Exploiting Short-Lived Values for Low-Overhead Transient Fault Recovery*, by Nayef Abu-Ghazaleh, Joseph Sharkey, Dmitry Ponomarev and Kanad Ghose, Proc. Workshop on Architectural Support for Gigascale Integration, in conjunction with ISCA-33, Boston, MA, June 2006.
27. *A Scalable and Adaptive Approach to Data Fusion for Autonomous UAVs*, James Rosswog, Kanad Ghose, Robert Szczerba, in Proc. 62-nd AHS Conference, May 2006.
28. *A Time and Space Partitioned Avionics Real-Time File System*, by Kanad Ghose, Sumit Ray, Dorin Hoge, Onur Demir and Joseph Imperato Jr., in Proc. 24-th IEEE Digital Avionics Systems Conference, 2005, pp. 6-23 to 6-32.
29. *Improving Adaptive Cache Leakage Reduction Techniques with Line Buffers*, by Gurhan Kucuk, Kanad Ghose, in Proc. 2nd Watson Conference on Interaction between Architecture, Circuits, and Compilers (P=ac2 Conference 2005), IBM Research Center at Yorktown Heights, NY, September 2005.
30. *Reducing Delay and Power Consumption of the Wakeup Logic through Instruction Packing and Tag Memorization*, by Joseph Sharkey, Dmitry Ponomarev, Kanad Ghose, Oguz Ergin, Proc. 4th Workshop on Power-Aware Computer Systems (PACS'04), held in conjunction with the 37th IEEE/ACM International Symposium on Microarchitecture (MICRO-37), Portland, OR, December 2004.
31. *An Adaptive Technique for Reducing Leakage and Dynamic Power in Register Files and Reorder Buffers*, by Shadi T. Khasawneh and Kanad Ghose, *PATMOS-2005*, Belgium, September 2005.

32. *Selective Writeback: Improving Processor Performance and Energy-Efficiency*, by Deniz Balkan, Oguz Ergin, Dmitry Ponomarev, Kanad Ghose, in Proc. 1st Watson Conference on Interaction between Architecture, Circuits and Compilers (P=ac2 Conference) , IBM Research Center at Yorktown Heights, NY, October 2004.
33. *Predicting, Detecting and Exploiting Transient Values*, by Deniz Balkan, Dmitry Ponomarev, Kanad Ghose, in Proc. 2nd Value Prediction Workshop, held in conjunction with ASPLOS-XI, October 2004.