

# GEORGIA INSTITUTE OF TECHNOLOGY

College of Computing

**CS6290/CS4290 — High-Performance Computer Architecture**

Spring 2003

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CS6290/CS4290 Handout #2  
Reading list

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Here is a tentative reading list.

## General

1. [Patterson85] David A. Patterson, “Reduced Instruction Set Computers”, *Communications of the ACM*, 28(1), pages 8-21, January, 1985.

## Memory Systems

2. [Jouppi90] N. P. Jouppi, “Improving Direct-Mapped Cache Performance by the Addition of a Small Fully-Associative Cache and Prefetch Buffers” in *Proceedings of the 17th Annual International Symposium on Computer Architecture (ISCA)*, pages 364-373, June, 1990.
3. [Dennis65] Jack B. Dennis, “Segmentation and the Design of Multiprogrammed Computer Systems”, *Journal of the Association for Computing Machinery*, 12(4), pages 589-602, October, 1965.
4. [Song97a] Peter Song, “Direct RDRAM Sustains 1.5 Gbytes/s”, *Microprocessor Report*, 11(14), October 27, 1997.

## Instruction-Level Parallelism

5. [Fisher91] Joseph A. Fisher and B. Ramakrishna Rau, “Instruction-Level Parallel Processing”, *Science*, 253, pages 1233-1241, September 13, 1991.
6. [Arvind86] Arvind and David Culler, “Dataflow Architectures”, *Annual Reviews in Computer Science*, 1986
7. [Smith88] J. E. Smith and A. R. Pleszkun, “Implementing Precise Interrupts in Pipelined Processors”, *IEEE Transactions on Computers*, 37(5), pages 562-573, May, 1988.

8. [Emer97] Joel Emer and Nikolas Gloy, “A Language for Describing Predictors and its Application to Automatic Synthesis”, In Proceedings of the 24th Annual Symposium on Computer Architecture (ISCA), pages 304-314, June, 1997.

### Uniprocessors (example microprocessors)

9. [Gwennap95] Linley Gwennap, “Intel’s P6 Uses Decoupled Superscalar Design”, *Microprocessor Report*, 9(2), February 16, 1995.
10. [Gwennap96] Linley Gwennap, “Digital 21264 Sets New Standard”, *Microprocessor Report*, 10(14), October 28, 1996.
11. [Song97b] Peter Song, “UltraSparc-3 Aims at MP Servers”, *Microprocessor Report*, 11(14), October 27, 1997.
12. [Gwennap97] Linley Gwennap, “Intel, HP Make EPIC Disclosure”, *Microprocessor Report*, 11(14), October 27, 1997.

### Multiprocessors (example machines)

13. [Kubiatowicz93] John Kubiatowicz and Anant Agarwal, “Anatomy of a Message in the Alewife Multiprocessor” in *Proceedings of the 7th ACM International Conference on Supercomputing (ICS)*, July, 1993.
14. [Laudon97] James Laudon and Daniel Lenoski, “The SGI Origin: A ccNUMA Highly Scalable Server” in *Proceedings of the 24th Annual International Symposium on Computer Architecture (ISCA)*, June, 1997.
15. [Scott96] Steven L. Scott, “Synchronization and Communication in the T3E Multiprocessor” in *Proceedings of the Seventh International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLoS)*, pages 26-36, October, 1996.