

Computer Science 851

Advanced Topics in Computer Architecture: Aggressive Speculative Architectures

Beginning-of-Course Memo—Spring 2000

ORGANIZATIONAL MEETING: WEDS., JAN. 19, 4:00 PM, RM. 236-D

The Spring 2000 course on Advanced Topics in Computer Architecture will survey a range of aggressive microprocessor architectures that have recently been proposed by the research community. These include techniques like MultiScalar computing, simultaneous multithreading, value prediction, and so forth. A detailed schedule appears below.

For each class we will read 1–2 papers and discuss

- the research idea
- the implementation and research approach
- the evaluation methodology
- relationships to other research projects
- opportunities for future work

Unless the enrollment is large, we will omit the traditional paper presentations. Instead, each paper will have a designated *discussion leader*. Everyone is expected to read the papers, but the discussion leader will be the designated expert on his or her paper, and is also responsible for leading the discussion and coming prepared with stimulating questions. The course grade will be entirely based on class participation.

Who should take this course

This seminar is open to any graduate student who has completed CS 654. The major goals of this course are:

- To provide participants with a detailed knowledge of some of today's cutting-edge research in computer microarchitecture
- To explore the wide range of architectural solutions that have been proposed, and to examine their merits
- To gain an understanding of the performance and complexity tradeoffs that drive research in microarchitecture
- To foster research in architecture-related areas

Administrative matters

Instructor

Kevin Skadron (skadron@cs.virginia.edu)
Olsson 215, 2-2042
Office hours: Wednesdays, 4:00–5:00 or by appt.

When and where

TBA

We will have an organizational meeting on Wednesday at 4:00 pm in conference room 236-D to find the best meeting time.

Schedule