

# Programming Parallel Computers

## Lectures

### Week 3

The lecture videos are available both on YouTube and on Panopto, in up to 4K resolution, with English subtitles. The slides are also available in the PDF format.

### Lectures

[YouTube playlist](#) with all parts of the lecture.

Part 3A: All three forms of parallelism in action (10 min)

- [Lecture on YouTube](#)
- [Lecture on Panopto](#)
- [Slides](#)

Part 3B: Reusing data in registers (15 min)

- [Lecture on YouTube](#)
- [Lecture on Panopto](#)
- [Slides](#)

Part 3C: Reusing data in cache (11 min)

- [Lecture on YouTube](#)
- [Lecture on Panopto](#)
- [Slides](#)

### Topics covered

- [Chapter 2, V4: reuse data in registers](#)
- [Chapter 2, V5: more register reuse](#)
- [Chapter 2, V7: better use of cache memory](#)

### Additional material

- Two animations on memory access patterns: [basics](#) · [advanced](#)
- [Chapter 2, V6: prefetching](#) [advanced]

