

# Coprocessors and Accelerators

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# Coprocessors Promises

- Massively parallel at a commodity price.
- Increased power efficiency
- ‘But’
  - Need to move data to and from main memory
  - Often require special code/programming

# Challenges and questions.

- How to mitigate latencies (due to data transfer)
  - use of pipe-lining, cuda-streams, etc.
- Criteria to decide which computation should be done on the GPU or on the CPU
- Data structures design
- Optimization strategies
- Performance gains and expectations, total cost of ownership
- Risk of vendor lock-in