HERIOT WATT UNIVERSITY

Revision

F21DP Distributed and Parallel Technology

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OpenCL

- General structure of openCL programs
- Understanding kernels
- Relation between kernels and index spaces
- Understanding work-groups and their restrictions/ impact on performance
- What is Coalescing and how does it work? Includes ability to optimise programs for coalescing
- Understanding the way local memory works as cache and how that can impact memory loads

OpenMP

- Basic principle of openMP
- Most important language constructs
- Being able to read and write openMP programs
- False sharing / reductions
- Variable declarations (shared, private etc)
- Different schedulings

SaC

- Basic model of execution
- Functional principles that underlie SaC
- Reading and writing SaC programs
- Array types in SaC
- Shape-invariant programming
- Basic principles of reference counting