

Single Node Optimisation

Day 1 Summary



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Summary

- Lots of complexity in computers
 - This is good, most of it works for you
- For single node performance some hardware is key
 - Processor
 - Caches
 - Memory
 - (Accelerators)
- Compiler are you friend
 - They can do lots of optimisations
 - But code structure helps/hinders the work
- Profiling and compiler reports
 - Key tools to understanding current performance and future performance potential
- More things to care about
 - Vectorisation
 - Memory optimisations
 - Shared memory parallelisation
- Feedback
 - <https://www.archer2.ac.uk/training/feedback/?course=231123-performance-optimisation>