

NAIS Summer Workshop, Programme for (subject to minor alterations)

Day 1 - Extreme-scale computing (Wed 23rd June)

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| 9:30am | The challenge of exascale computing, Pt 1 (A Trew) |
| 10:30am | <i>Break</i> |
| 11:00am | The challenge of exascale computing, Pt 2 (A Trew) |
| Noon | GP-GPU Introduction and Technology Update (A. Gray) |
| 12:30pm | <i>Lunch</i> |
| 1:30pm | PGAS Programming for UPC and Co-array FORTRAN (J Beech-Brandt and H Richardson) |
| 3:00pm | <i>Break</i> |
| 3:30pm | Chapel, Fortress & X10: Novel Programming Languages for HPC (M Weiland) |
| 4:00pm | Case Study #1:- Near real-time modelling of cardiac arrhythmias (L. Mitchell) |
| 4:30pm | Case Study #2:- A Lattice QCD implementation of the LANSO method (Lanczos Algorithm with Selective Orthogonalization) (C. Johnson) |
| 5:00pm | <i>Close</i> |
| 7:00pm | <i>Workshop dinner at Kalpna restaurant</i> |

Day 2 - Novel approaches to scientific computing (Thr 24th June)

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| 9:30am | Pattern-Aware Autotuning of Parallel Numerical Code: Principles and Preliminary Results (Murray Cole and Chris Fensch) |
| 11:00am | <i>Break</i> |
| 11:30am | MATLAB for HPC (Elena Breitmoser and George Beckett) |
| 1:00pm | <i>Lunch</i> |
| 2:00pm | Case Study #3:- Programming using the MapReduce Framework vs Explicit Message Passing (Amy Krause/Bartek Dobrzelecki) |
| 3:00pm | <i>Break</i> |
| 3:30pm | Panel Discussion (NAIS investigators answer questions on workshop themes and the NAIS vision) - facilitator is David Henty |
| 5:00pm | <i>Close</i> |