

# Tuesday 25 June

## AMReX day

MR5, Pavilion A, Centre for Mathematical Sciences

- Morning talks:

- 9.00 - 10.00: AMReX and performance portability (Weiqun Zhang, Lawrence Berkeley Natl. Lab)
- 10.00 - 11.00: Nyx: cosmological simulations at the exascale (Zarija Lukić, Lawrence Berkeley Natl. Lab)
- 11.00 - 11.30: Coffee
- 11.30 - 12.00: Applications of Multiphysics in AMReX (Philip Blakely/Nikos Nikofarkis, Cambridge)
- 12.00 - 12.30: ExaHyPE 2: An Engine for Hyperbolic PDEs Solving Codes (Han Zhang, Durham)
- 12.30 - 1.00: Dyablo: A simulation code for astrophysics fluids with adaptive mesh refinement with Kokkos (Maxime Delorme and Arnaud Durocher, CEA)

- Afternoon talks/hands-on sessions:

- 2.30 - 2.45: Ray Tracing in Nyx for Inhomogeneous Reionization (Nathan X. Marshak, University of Utah)
- 2.45 - 3.00: High-order FEM implementation in AMReX with PETSc (Alex Grant, Hartree Centre - STFC UKRI)
- 3.00 - 3.30: In-situ visualization with AMReX (Juliana Kwan, Cambridge)
- 3.30 - 4.00: Distributed raytracing with OSPRay in ParaView (Carson Brownlee, Intel, remote)
- 4.00 - 4.30: Coffee
- 4.30 - 5.30: Visualizations at exascale with Aurora (Joe Insley, Silvio Rizzi, Victor Mateevitsi, Argonne Natl. Lab, remote)