

CoSeC Conference 2024
 Wednesday 4 December
 Manchester Central Convention Complex
AGENDA



Computational Science Centre
for Research Communities

TIME	SPEAKER	PRESENTATION TITLE
9:50 - 10:00	Stephen Longshaw (CoSeC Director, UKRI-STFC)	Introduction
10:00 - 11:00	Session 1	
10:00 - 10:20	Capser da Costa-Luis (UKRI-STFC)	Engineering Infrastructure for a Medical Imaging Competition
10:20 - 10:40	Gemma Poulter (UKRI-STFC)	CAT-WSI: A Catalogue of Research Outputs for Wave Structure Interaction
10:40 - 11:00	Tuomas Koskela (University College London - CoSeC Fellow)	Reproducible and Portable Performance Benchmarking
11:00 - 11:30	Refreshments	
11:30 - 12:30	Session 2	
11:30 - 11:50	Margaret Duff (UKRI-STFC)	Core Imaging Library: Bridging Disciplines with Open-Source Optimisation Tools for Tomography and Other Inverse Problems
11:50 - 12:10	Joel Greer (UKRI-STFC)	Roodmus: A toolkit for benchmarking heterogeneous electron cryo-microscopy reconstructions
12:10 - 12:30	Omar Ahmed Mahfoze (UKRI-STFC)	High Performance Coupling of a Mesoscale Weather Forecasting Model and Microscale Simulation
12:30 - 13:30	Lunch Break	
13:30 - 15:00	Session 3	
13:30 - 14:00	Chengcheng Xiao (Imperial College London) Christian Gutschow (University College London) Christopher Woodgate (University of Bristol) Ignatius Ezeani (Lancaster University) James Parkhurst (Rosalind Franklin Institute) Michael Bane (Manchester Metropolitan University) Qian Fu (University of Birmingham) Tuomas Koskela (University College London)	The CoSeC Fellowship programme
14:00-14:20	Jianping Meng (University of Liverpool)	Synergy between HPC and AI: Case studies in CFD and biomedical research
14:20-14:40	Harvey Devereux (Queen Mary University London)	Improved viscosity calculations from machine learnt potentials

TIME	SPEAKER	PRESENTATION TITLE
14:40 - 15:00	Christopher Woodgate (University of Bristol - CoSeC Fellow)	Modelling Multicomponent Alloys Across Length Scales: Insights from an Interdisciplinary Approach

15:00-15:30	Refreshments	
15:30 - 17:30	Session 4	
15:30 - 15:50	Sofia Oliveira (University of Bristol)	How can emerging computational approaches help us understand drug resistance and allostery in proteins?
15:50 - 16:10	Yifu Zhang (University of Southampton)	OpenFOAM Performance Benchmarking on HPC hardware
16:10 - 16:30	Liang Yang (Cranfield University)	ChopMesh – massive parallel mesh generation for CFD/FEA simulation on HPCs
16:30 - 16:50	Richard Gilham (University of Bristol)	User Experience for Isambard-AI and Isambard 3: Democratizing supercomputing
16:50 - 17:10	Hitham Hassan (Wellcome Sanger Institute)	Data Encoding for Quantum Pangenomics
17:10 - 17:30	Viv Kendon (University of Strathclyde)	Developing quantum algorithms for fluid simulations