Computing Insight UK 2022   *"Sustainable HPC"*
Thursday 1 and Friday 2 December 2022

COMPUTING INSIGHT UK 2022
"Sustainable HPC"
1 - 2 DECEMBER 2022
Manchester Central, UK
www.stfc.ac.uk/ciuk

Main Programme Session Themes

	Session 1: Sustainable Computer and Data Centres
	Session 2: Sustainability and Systems Administration
	Session 3: ExCALIBUR in Practice

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DAY 1 - Thursday 1 December 2022

TIME	MAIN PROGRAMME	BREAKOUT SESSIONS
From 08:30	**REGISTRATION OPEN (Charter Foyer) EXHIBITION OPEN (Gallery)**	
09:15 - 09:30	*Welcome and Introduction* **Tom Griffin (Director, Scientific Computing, STFC)**	
09:30 - 10:00	**Dr Peter Oliver (Scientific Computing, STFC)** *Design considerations for an environmentally sustainable datacentre for STFC*	
10:00 - 10:30	**Pekka Lehtovuori (CSC - IT Center for Science Ltd)** *Reaching zero carbon footprint in HPC operations*	
10:30 - 11:00	**Thomas Eickermann (Jülich Supercomputing Centre)** *Towards more sustainable HPC at the Jülich Supercomputing Centre*	
11:00 - 11:30	**REFRESHMENTS**	**CoSeC** Computational Science Centre for Research Communities **Annual Conference 2022** Thursday 1 December @ CIUK 2022 10:00-16:00
11:30 - 12:00	**Jacob Newman (University of East Anglia)** *Optimising HPC Workflows: Three Case Studies from a Research Software Engineer's Perspective*	
12:00 - 12:30	**Gabryel Mason-Williams (Rosalind Franklin Institute)** *DisTRaC: Accelerating High-Performance Data Processing*	
12:30 - 13:00	**Simon Atack (University of Bristol)** *Creating A Cluster - Going it Alone*	
13:00 - 14:00	**LUNCH**	
14:00 - 14:30	**Ed Threlfall (UKAEA)** *Project NEPTUNE - sustainable software for sustainable fusion energy*	
14:30 - 15:00	**Joseph Hickson, Lewis Sampson and Victoria Smart (Met Office)** *Preparing the Met Office for the next generation of supercomputers*	
15:00 - 15:30	**Ben Rogers (University of Manchester) and Phil Hasnip (University of York)** *PAX-HPC - Modelling particles at exascale: from atoms to galaxies*	
15:30 - 16:15	**REFRESHMENTS**	
16:15 - 17:00	**Martyn Guest (ARCCA, Cardiff University)** *Performance of Community Codes on Multi-core Processors.* *An Analysis of Computational Chemistry and Ocean Modelling Applications*	
17:00 - 18:00	**Keynote Presentation - Professor Michèle Weiland (EPCC, The University of Edinburgh)** **Net Zero HPC - noble dream or inevitable goal?**	
18:30 - 23:00	**CIUK 2022 Networking Event** **Revolucion de Cuba, 11 Peter St, Manchester M2 5QR** (*CIUK lanyard and badge required for entry*).	

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(orange)	Session 4: UKRI Net Zero Digital Research Infrastructure Project
(blue)	Session 5: Software Engineering to Improve Code Performance
(pink)	Session 6: An Industry Perspective on Sustainability

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DAY 2 - Friday 2 December 2022

TIME	MAIN PROGRAMME	BREAKOUT SESSIONS
From 08:30	**REGISTRATION OPEN (Charter Foyer) EXHIBITION OPEN (Gallery)**	WHPC WOMEN IN HIGH PERFORMANCE COMPUTING 08:30-10:30
09:30 - 10:00	**UKRI Net Zero Digital Research Infrastructure Project**	
10:00 - 10:30	09:30 - 09:50 Project Overview **(Martin Juckes)** 09:50 - 10:00 HPC-JEEP **(Alastair Basden and Andy Turner)** 10:00 - 10:10 IRISCAST **(Jonathan Hays)** 10:10 - 10:20 ENERGETIC **(Deepan Bhowmik and Teymoor Ali)** 10:20 - 10:30 CARBON-QUANDRI **(Daniel Schien)** 10:30 - 11:00 Panel Discussion **(Wim Vanderbauwhede, Justin O'Byrne, Martin Juckes)**	
10:30 - 11:00		
11:00 - 11:30	# REFRESHMENTS	Spectrum Scale User Group 10:30-12:30
11:30 - 12:00	**Ilektra Christidi (Senior Research Software Developer, UCL Advanced Research Computing Centre)** *Coupling the Time-Warp algorithm with a Kinetic Monte Carlo framework for exact distributed simulations of heterogeneous catalysts*	
12:00 - 12:30	**Elizabetta Boella (Lancaster University & Cockcroft Institute)** *ECsim: a massively parallel Particle-In-Cell code for plasma physics with OpenACC support*	
12:30 - 13:00	**The Jacky Pallas Memorial Presentation** **Dr Djenifer Kappel (Centre for Neuropsychiatric Genetics and Genomics - Cardiff University)** *The genomic basis for precision medicine in treatment-resistant schizophrenia*	
13:00 - 14:15	# LUNCH	
14:15 - 14:30	**Award Presentation - The CIUK 2022 Student Cluster Challenge and Poster Competition**	UKRI UK Research and Innovation **ENERGETIC: A workshop regarding Energy Benchmarking on Heterogeneous Systems** 14:00-16:00
14:30 - 15:00	**Dr Rosemary Francis (Chief Scientist HPC, Altair)** *Ten Ways in Which Altair is Saving the Planet with HPC*	
15:00 - 15:30	**Dr Crispin Keable (Senior HPC Architect, Global HPC Strategic Sales, Atos)** *Sustainability issues as we move towards exascale class HPC architectures*	
15:30 - 16:00	**Laura Foster (techUK)** *Why is HPC integral to becoming a "science and technology superpower?"*	
16:00	**CIUK 2022 CLOSES**	