

Computing Insight UK 2019 "Computing the Future"

Thursday 5 and Friday 6 December 2019

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Main Programme Session Themes

	Session 1: Cloud Computing Today
	Session 2: Software Development Today
	Session 3: Data Science - Convergence of AI and HPC

COMPUTING INSIGHT UK 2019
Computing The Future
5-6 DECEMBER 2019
MANCHESTER, UK

Science & Technology
Innovation Centre
UK Research and Innovation

DAY 1 - Thursday 5 December 2019

TIME	MAIN PROGRAMME	BREAKOUT SESSIONS
From 08:30	REGISTRATION OPEN (Main Foyer) EXHIBITION OPEN (Gallery) RESEARCH CENTRE ZONE OPEN (Main Foyer)	
09:15 - 09:30	<i>Welcome</i> Tom Griffin (Director, Scientific Computing, STFC)	
09:30 - 10:00	<i>Movement without Disruption - or - How to Move Your Multi-Million Pound HPC Cluster without Your Users (Hardly) Knowing</i> Cliff Addison (University of Liverpool)	
10:00 - 10:30	<i>JASMIN and the Evolution of Cloud-Hosted Data Analytics Platforms for the Environmental Sciences</i> Phil Kershaw (JASMIN)	
10:30 - 11:00	<i>Cagliari Airport AI in Fog to Cloud HPC</i> Jens Jensen (STFC)	<i>Power AI User Group</i> 10:00 - 11:30
11:00 - 11:30	REFRESHMENTS	<i>Spectrum Scale User Group</i> 11:30 - 13:00
11:30 - 12:00	<i>Research Software Engineering Impact Showcase</i> James Grant (University of Bath)	
12:00 - 12:30	A session consisting of a series of short talks from the RSE community using case studies to highlight impact followed by a panel discussion on how we can measure and promote the capability of RSEs to produce impact.	
12:30 - 13:00	Presentations from James Grant (University of Bath), Dave Meredith (STFC) and Andy Turner (EPCC)	
12:30 - 14:30	LUNCH	
14:30 - 15:00	<i>Machine Learning as a Cheaper Alternative to HPC Approaches in Science</i> Jeyan Thiyagalingam (STFC)	<i>Utilising the Open Source OpenFlightHPC Project for HPC Workflow Design and Implementation</i> 14:00 - 16:00
15:00 - 15:30	<i>Linking National Imaging Facilities with HPC and Research Software Engineering centres – and their use on a Big Data problem</i> Martin Turner (University of Manchester)	
15:30 - 16:15	Research Centre Zone - Lightning Talks Supercomputing Wales, DiRAC, ARCHER, Cirrus, ICHEC, N8CIR, the Materials Modelling Hub, Isambard, JASMIN	
16:15 - 17:00	REFRESHMENTS	
17:00 - 18:00	<i>Application Performance on Multi-Core Processors: Performance Analysis of the AMD EPYC Rome Processors</i> Martyn Guest (ARCCA, Cardiff University)	
18:00 - 19:00	Keynote Presentation Debra Sijacki (University of Cambridge, Institute of Astronomy) Winner of the 2019 PRACE Ada Lovelace Award for HPC <i>"Towards next generation computing in cosmological simulations: prospects and challenges"</i>	
19:00 - 23:00	CIUK 2019 CONFERENCE PARTY 7pm - Late Entry strictly with a CIUK wristband! Collect your wristband from the registration desk	



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Main Programme Session Themes

	Session 4: Hardware Towards Exascale
	Session 5: Software Development Towards Exascale
	Session 6: Quantum Computing



DAY 2 - Friday 6 December 2019

TIME	MAIN PROGRAMME	BREAKOUT SESSIONS
From 08:30	REGISTRATION OPEN (Main Foyer) EXHIBITION OPEN (Gallery) RESEARCH CENTRE ZONE OPEN (Main Foyer)	
09:30 - 10:00	<i>NVMe over PCIe Fabrics Using Device Lending</i> Jonas Markussen (Dolphin Interconnect Solutions)	<p>NVIDIA Deep Learning Institute "Fundamentals of Accelerated Computing with CUDA C/C++"</p> <p>The CUDA computing platform enables the acceleration of CPU-only applications to run on the world's fastest massively parallel GPUs.</p> <p>Upon completion of this day-long workshop, attendees will be able to accelerate and optimize existing C/C++ CPU-only applications using the most essential CUDA tools and techniques whilst achieving an industry-recognised certification (subject to passing the assessment)</p>
10:00 - 10:30	<i>On the Road to ExaScale - New Storage Technologies to Support ExaData</i> Torben Kling Petersen (Cray)	
10:30 - 11:00	The Jacky Pallas Memorial Presentation <i>On the Structure of Lipid-Based Nanoparticles for Drug Delivery</i> Demi Pink (King's College London)	
11:00 - 11:30	REFRESHMENTS	
11:30 - 12:00	<i>Readying an Industrial CFD Code for Pre-Exascale</i> Yvan Fournier (EDF)	
12:00 - 12:30	<i>Improving Application Performance: Mellanox's Collaboration with UK HPC</i> Richard Graham (Mellanox Technologies)	
12:30 - 13:00	<i>Towards Understanding Exascale IO needs – insights from LASSi on ARCHER</i> Karthee Sivalingam (CRAY)	
13:00 - 14:30	LUNCH	
14:30 - 15:00	<i>The UK e-Infrastructure Roadmap</i> Mark Thomson (STFC)	
15:00 - 15:30	<i>Quantum Computing for the 21st Century</i> Kate Marshall (IBM)	
15:30 - 16:00	<i>Quantum Computing Ambitions from University of Liverpool</i> Michael Bane (University of Liverpool) and Shane Rigby (Atos)	
16:00	CIUK 2019 CLOSES	