

Computing Insight UK 2018 "Research Computing Delivers"

Wednesday 12 and Thursday 13 December 2018

Main Programme Session Themes

	Session 1: Career Paths - Service Provision Roles
	Session 2: Working With Industry
	Session 3: Applications Science - Emerging Technologies and New Software
	Session 4: Data Science - Big Data, Artificial Intelligence, Machine Learning



DAY 1 - Wednesday 12 December 2018

TIME	MAIN PROGRAMME	EXHIBITOR FORUM	BREAKOUT SESSIONS
08:30 - 09:45	REGISTRATION OPEN (Main Foyer) EXHIBITION OPEN (Gallery)		
09:45 - 10:00	<i>Welcome</i> Tom Griffin (Director, Scientific Computing, STFC)		
10:00 - 10:30	<i>Supporting and Developing Careers in HPC</i> Simon Thompson (Birmingham University)		<i>Power AI User Group</i>
10:30 - 11:00	<i>Journeys in Research Computing, Genomics and Atmospheric Physics – Challenges, Successes and Lessons Learnt</i> Man-Suen Chan (Oxford University)	<i>HPC in the Cloud</i> Dairis Latimer (Red Oak Consulting) <i>Interconnect topology considerations applied to applications and clusters</i> Darren Harkins (Mellanox)	
11:00 - 11:30	REFRESHMENTS - Sponsored By...	BOSTON Servers Storage Solutions	
11:30 - 12:00	<i>The image analyst under the microscope</i> Leila Muresan (Cambridge University)	<i>Artificial Intelligence in 15 minutes or less</i> Matt Armstrong (Hewlett Packard Enterprise) <i>BeeGFS for different I/O profiles</i> Marco Merkel (ThinkParQ)	
12:00 - 12:30	<i>Reflections on a career in computing, from teletypes and card decks to a modern University Research Computing service</i> Paul Hatton (University of Birmingham)	<i>Lean Composites Manufacturing through Machine Learning</i> Nathan Harper (CFMS) <i>Technical challenges of complex workloads and how to tackle them</i> Sven Oehme (DDN)	10:00: Welcome 10:15: Use case 1 10:30: Deploying PowerAI in HPC 11:15: Break 11:30: Use case 2 11:45: Using PowerAI 12:15: Close
12:30 - 13:00	LUNCH - Sponsored By <i>Orchestrating a brighter world</i> NEC	EXHIBITION OPEN	<i>Spectrum Scale User Group</i> #SSUG • What's new in 5.2.0, Daniel Kidger (IBM) • Understanding Memory usage in Spectrum Scale [Deep dive technical session], Tomer Perry (IBM) • Data management with Spectrum Discover and Spectrum Scale, Indulis Bernsteins (IBM) • Customer Talk TBC • Optimizing storage stacks for AI [Deep dive technical session], Sven Oehme (DDN)
13:00 - 13:30			
13:30 - 14:00			
14:00 - 14:30			
14:30 - 15:00	<i>JASMIN – On the road to high performance software defined object stores</i> Jonathan Churchill (STFC)	<i>Tuning I/O and sizing storage for the cloud: a case study</i> Rosemary Francis (Ellexus) <i>Project JASMIN at Rutherford Appleton Laboratories</i> Alex Oldfield (Caringo)	
15:00 - 15:30	<i>Realising HPC Performance and Agility in Private Cloud - A Case Study</i> Stig Telfer (StackHPC Ltd)	<i>From Terabytes to Petabytes: How to address the new challenges of data protection?</i> Herve Collard (Atempo) <i>The Atos Quantum Learning Machine</i> Emily Barrett (Atos)	
15:30 - 16:00	<i>Arm Developments in HPC</i> Oliver Perks (ARM)	<i>Cray HPC Storage Solutions</i> Torben Kling Petersen (Cray) <i>How To Build A Storage Appliance That's Cooler Than A Dog</i> Jason van der Schyff (Softiron)	
16:00 - 16:30	<i>Liverpool University - Stepping to Hybrid HPC. The Barkla Cluster & Cloud</i> Cliff Addison (Liverpool University)	<i>Is Cloud The Next Disruption in HPC?</i> Graham Russell (Rescale) <i>Redefining Memory and Storage</i> Toby Smith (Intel)	
16:30 - 17:00	REFRESHMENTS - Sponsored By...	BOSTON Servers Storage Solutions	
17:00 - 17:30	<i>Application Performance on Multi-Core Processors</i>		
17:30 - 18:00	Martyn Guest (ARCCA, Cardiff University)		
18:00 - 18:30	Keynote Presentation - Fred Streitz		
18:30 - 19:00	Director, High Performance Computing Innovation Center, Lawrence Livermore National Laboratory "Machine Learning and Predictive Simulation: HPC and the U.S. Cancer Moonshot"		
19:00 - 19:30	NETWORKING RECEPTION AND STUDENT POSTER SESSION - Sponsored By... 		
19:30 - 20:00			
20:00 - 20:30			
20:30 - 21:00			

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DAY 2 - Thursday 13 December 2018

TIME	MAIN PROGRAMME	EXHIBITOR FORUM	BREAKOUT SESSIONS
08:30 - 09:00	REGISTRATION OPEN (Main Foyer) EXHIBITION OPEN (Gallery)		
09:00 - 09:30			
09:30 - 10:00	<i>The emergence of AI and HPC: a new hybrid architecture for high performance data analytics</i> Andy Grant (Atos)	<i>GenZ - the future of composable computing. What it might mean for HPC</i> Steve Smith (Dell)	
10:00 - 10:30	<i>Building A Collaborative Clinical Genomics Service</i> Jon Lockley (Cancer Research)	<i>Lights-Out Operations: How to Manage Unified HPC Storage Infrastructures with Quobyte</i> Matthias Grawinkel (Quobyte) <i>Next-Generation Vector Computing with NEC SX Aurora TSUBASA</i> Oliver Tennert (NEC)	<p style="text-align: center;"><i>NVIDIA Deep Learning Institute</i></p> <p>NVIDIA Deep Learning Institute (DLI) workshops, hosted by Boston, offer hands-on training for developers, data scientists, and researchers looking to solve challenging problems with deep learning.</p> <p>Through self-paced labs and instructor-led workshops, the Deep Learning Institute teaches the latest techniques for designing, architecting, and deploying neural network-powered machine learning across a variety of application domains.</p> <p>Students of the DLI will explore widely used open-source frameworks and NVIDIA's latest GPU-accelerated deep learning platforms. Boston are pleased to be DLI Delivery Partners providing training globally.</p>
10:30 - 11:00	<i>Mo' cores, mo' problems? Exascale, accelerators and the CASTEP code</i> Phil Hasnip (York University)	<i>Moving HPC to the Cloud</i> Angel Caballero (UNIVA) <i>Why Scale-Out POSIX File Systems are Important</i> Troy Alexander (Qumulo)	
11:00 - 11:30	REFRESHMENTS - Sponsored By...		
11:30 - 12:00	<i>Authentication and authorisation infrastructure (AAI) for medical research computing</i> Callum Smith (Oxford University)	<i>ClusterVision Development Roadmap: Cluster Management, Cloud, and HPC Storage</i> Heather Stephens (ClusterVision) <i>The Arm HPC Ecosystem in 2018</i> Mark Clarke (ARM)	
12:00 - 12:30	<i>The movement towards HPC inclusivity – Case Studies in Cloud HPC</i> Cristin Merritt (Alces Flight)	<i>Lessons learned from HPC: The dark art of moving bottlenecks around systems architectures</i> David Power (Boston) <i>A fault-tolerant implementation of Software-Defined Storage</i> Markku Räsänen (Tuxera)	
12:30 - 13:00	LUNCH - Sponsored By	EXHIBITION OPEN	
13:00 - 13:30		Student poster competition presentation on BeeGFS stand at 13:45	
13:30 - 14:00			
14:00 - 14:30	<i>Flash in HPC – Separating Facts from Fiction</i> Torben Kling Petersen (Cray)	<i>Huawei advancements in the HPC hardware space</i> Mark Allsopp (Huawei) <i>Delivering cloud computing as a service in a research environment – Case Study</i> Andrew Dean (OCF)	
14:30 - 15:00	<i>Artificial Intelligence at the Edge</i> Peter Beckman (Argonne National Laboratory)	<i>Alces Flight: On-Demand HPC</i> Wil Mayers (Alces Flight) <i>Accelerating Data Intensive Applications with Shared NVMe Storage</i> Ziv Serlin (e8 Storage)	
15:00 - 15:30	<i>Technical Challenges of Complex Workloads and How to Tackle Them</i> Sven Oehme (DDN)	<i>Architecture of a Next-Generation Object Storage Device in the Panasas Filesystem</i> Curtis Anderson (Panasas) <i>How Verne Global is providing industrial scale HPC and GPU as a Service for the UK Research community from Iceland</i> Spencer Lamb (Verne Global)	
15:30 - 16:00	<i>Extreme-scaling on Omni-Path fabric: performance for computational astrochemistry</i> David Benoit (Hull)		
16:00	CIUK 2018 CLOSES		



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