

2018 IEEE Rebooting Computing Week

Industry Summit

	IRDS	Confluence	International Conference on Rebooting Computing		
	Tuesday, November 06, 2018		Wednesday, November 07, 2018	Thursday, November 08, 2018	Friday, November 09, 2018
8:00 AM	IRDS Outbrief, Greetings <i>Room: International C</i>	Confluence Breakfast	ICRC Breakfast on your own		ICRC + Industry summit breakfast <i>Room: Atrium</i>
8:15 AM	IRDS Outbrief, Overview				
8:30 AM	IRDS Outbrief, App. BchMking	Confluence <i>Room: Beverly</i>	Kickoff & Snider Fellow		
8:45 AM			Plenary 1 : Bill Chappell <i>Room: International C</i>		
9:00 AM	IRDS Outbrief, SysArch				Track Room: International B NC 9 Resistive coupled VO2 oscillators for image recognition
9:15 AM					Welcome <i>International C</i> Gerald Kleyn, HPE - The Convergence of OT and IT, the Next Digital Wave
9:30 AM	IRDS Outbrief, More Moore				
9:45 AM			Break	Break	26 An Efficient Adder Architecture with Three-Independent-Gate Field-Effect Transistors
10:00 AM	Q&A		Track Room: International C 53 The largest cognitive systems will be optoelectronic	Workshop on Benchmarking Quantum Computational Devices and Systems	Track Room: International B 3 Neuromorphic Computing with Signal-Mixing Cavities
10:15 AM	Break (TBD)		46 Thermodynamic Intelligence, A Heretical Theory	Room: International B	Workshop on Benchmarking Quantum Computational Devices and Systems
10:30 AM	IRDS Outbrief, OSC				31 Neural Network Activation Functions with Electro-optic Absorption Modulators
10:45 AM			38 SC-SD: Towards Low Power Stochastic Computing using Sigma Delta Streams		7 Parallelized Linear Classification with Volumetric Chemical Perceptrons
11:00 AM	IRDS Outbrief, CE/QI		50 Towards Self-Healing Circuit Design Paradigm with Crosstalk Computing		MC 29 RNSnet: In-Memory Neural Network Acceleration Using Residue Number System
11:15 AM				CD 13 SNRA: A Spintronic Neuromorphic Reconfigurable Array for In-Circuit Training and Evaluation of Deep Belief Networks	44 Merge Network for a Non-von Neumann Accumulate Accelerator in a 3D Chip
11:30 AM	IRDS Outbrief, Factory			39 An Oscillatory Neural Network with Programmable Resistive Synapses in 28 nm CMOS	10 Regular Expression Matching with memristor TCAMs
11:45 AM					Alan Lee, AMD - Big Data Meets Big Compute
12:00 PM	Lunch		Lunch	Lunch	Lunch
12:15 PM	<i>Room: International Foyer</i>		<i>Room: International A</i>		<i>Room: Atrium</i>
12:30 PM					
12:45 PM					
1:00 PM	IRDS Outbrief, Lithography		Government roundtable <i>Room: International C</i>		Track Room: International B 48 Overcoming Technical Challenges in Realizing Molecular Quantum-dot Cellular Automata
1:15 PM					Trevor Lanting, D-Wave - Development of Quantum Annealing Technology
1:30 PM	IRDS Outbrief, Pkging Int.				
1:45 PM					22 Hardware Trojan Detection in Implantable Medical Devices Using Adiabatic Computing
2:00 PM	IRDS Metrology				Invited Talk: Dr. Michael Frank, Sandia
2:15 PM					
2:30 PM	IRDS Outbrief, ESH/S		Break	Break	Break
2:45 PM					Gabriela Thompson, Intel - The Future Is So Bright
3:00 PM	Q&A		Track Room: International C P 2 Design of superconducting optoelectronic networks for neuromorphic computing	Track Room: International B QA 20 Constraints embedding for quantum annealers	SW 8 Hardware-Software Co-Design for an Analog-Digital Accelerator for Machine Learning
3:15 PM	Break (TBD)				
3:30 PM	IRDS Outbrief, Yield		30 Multi-Level Optimization for Large Fan-In Optical Logic Circuits using Integrated Nanophotonics	33 Exploring More-Coherent Quantum Annealing	54 Hybrid Programming for Near-term Quantum Computing Systems
3:45 PM					
4:00 PM	IRDS Outbrief, ERM		32 Multiplication with Fourier Optics: Simulating 16-bit Modular Multiplication	35 Image classification using quantum inference on the D-Wave 2X	59 High-level Synthesis of Non-Rectangular Multi-Dimensional Nested Loops using Reshaping and Vectorization
4:15 PM					CD Circuits and devices
4:30 PM	IRDS Outbrief, Bynd CMOS		28 An Integrated Optical Parallel Multiplier Exploiting Approximate Binary Logarithms towards Light Speed Data Processing	60 Radiographic Inference Based on a Model of V1 Simple Cells Implemented on the D-Wave 2X Quantum Annealing Computer	QE 12 Towards Higher Scalability of Quantum Hardware Emulation using Efficient Resource Scheduling
4:45 PM					MC Memory centric
5:00 PM	Q&A		Poster session <i>Room: International Foyer</i>		24 Parallel Quantum Computing Emulation
5:15 PM	Perspectives				
5:30 PM					
5:45 PM	Adjourn				
6:00 PM					
6:15 PM					
6:30 PM	Reception IRDS, ICRC, <i>Room: Atrium</i>		Dinner on your own		ICRC Banquet + Industry Summit
7:00 PM					<i>Room: International A</i>
7:30 PM					
7:45 PM			WACI session <i>Room: International C</i>		
8:00 PM					
8:30 PM					
9:00 PM					