

2018 IEEE Rebooting Computing Week

Industry Summit

	IRDS	Confluence	International Conference on Rebooting Computing		Industry Summit	
	Tuesday, November 06, 2018		Wednesday, November 07, 2018	Thursday, November 08, 2018	Friday, November 09, 2018	
8:00 AM	IRDS Outbrief, Greetings	Confluence Breakfast	ICRC Breakfast on your own		ICRC + Industry summit breakfast	
8:15 AM	IRDS Outbrief, Overview					
8:30 AM	IRDS Outbrief, App. BchMking	Confluence	Kickoff & Snider Fellow			
8:45 AM			Plenary 1 : Bill Chappell			Plenary 2 : Paolo Faraboschi
9:00 AM	IRDS Outbrief, SysArch				NC 9 Resistive coupled VO2 oscillators for image recognition	
9:15 AM					Welcome	
9:30 AM	IRDS Outbrief, More Moore				26 An Efficient Adder Architecture with Three-Independent-Gate Field-Effect Transistors	
9:45 AM			Break	Break	Introduction HPE	
10:00 AM	Q&A		53 The largest cognitive systems will be optoelectronic	3 Neuromorphic Computing with Signal-Mixing Cavities	7 Parallelized Linear Classification with Volumetric Chemical Perceptrons	
10:15 AM	Break (TBD)				Q&A HPE	
10:30 AM	IRDS Outbrief, OSC		46 Thermodynamic Intelligence, A Heretical Theory	31 Neural Network Activation Functions with Electro-optic Absorption Modulators	MC 29 RNSnet: In-Memory Neural Network Acceleration Using Residue Number System	
10:45 AM					Introduction AMD	
11:00 AM	IRDS Outbrief, CE/QI		38 SC-SD: Towards Low Power Stochastic Computing using Sigma Delta Streams	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	
11:15 AM					Q&A AMD	
11:30 AM	IRDS Outbrief, Factory		50 Towards Self-Healing Circuit Design Paradigm with Crosstalk Computing	39 An Oscillatory Neural Network with Programmable Resistive Synapses in 28 nm CMOS	10 Regular Expression Matching with memristor TCAMs	
11:45 AM					Break	
12:00 PM	Lunch		Lunch	Lunch	Lunch	
12:15 PM						
12:30 PM						
12:45 PM						
1:00 PM	IRDS Outbrief, Lithography		Government roundtable	48 Overcoming Technical Challenges in Realizing Molecular Quantum-dot Cellular Automata	Introduction Dwave	
1:15 PM						
1:30 PM	IRDS Outbrief, Pkging Int.			22 Hardware Trojan Detection in Implantable Medical Devices Using Adiabatic Computing	Dwave	
1:45 PM					Q&A Dwave	
2:00 PM	IRDS Metrology			Invited talk	Break	
2:15 PM					Introduction IBM	
2:30 PM	IRDS Outbrief, ESH/S		Break	Break	Q&A IBM	
2:45 PM						
3:00 PM	Q&A		OP 2 Design of superconducting optoelectronic networks for neuromorphic computing	QA 20 Constraints embedding for quantum annealers		
3:15 PM	Break (TBD)			SW 8 Hardware-Software Co-Design for an Analog-Digital Accelerator for Machine Learning		
3:30 PM	IRDS Outbrief, Yield		30 Multi-Level Optimization for Large Fan-In Optical Logic Circuits using Integrated Nanophotonics	54 Hybrid Programming for Near-term Quantum Computing Systems		
3:45 PM					CD Circuits and devices	
4:00 PM	IRDS Outbrief, ERM		32 Multiplication with Fourier Optics: Simulating 16-bit Modular Multiplication	59 High-level Synthesis of Non-Rectangular Multi-Dimensional Nested Loops using Reshaping and Vectorization	MC Memory centric	
4:15 PM					CP Computing paradigms	
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	NC Non CMOS (Computing with Non-CMOS)	
4:45 PM					QE Quantum Emulation	
5:00 PM	Q&A		Poster session	24 Parallel Quantum Computing Emulation	SW Software Aspects	
5:15 PM	Perspectives					OP Optical Computing
5:30 PM						QA Quantum Annealing
5:45 PM	Adjourn					
6:00 PM						
6:15 PM						
6:30 PM	Reception IRDS, ICRC,		Dinner on your own		ICRC Banquet + Industry Summit	
6:45 PM						
7:00 PM						
7:15 PM						
7:30 PM						
7:45 PM			WACI session			
8:00 PM						
8:15 PM						
8:30 PM						
8:45 PM						
9:00 PM						