

Agenda for 19th US Workshop on Superconductor Electronics: Devices, Circuits & Systems

White Mountain Hotel & Resort, North Conway, NH, October 26-30, 2015

Monday		Tuesday		Wednesday		Thursday		Friday	
		7:00-8:30	Breakfast	7:00-8:30	Breakfast	7:00-8:30	Breakfast	7:00-8:30	Breakfast
		8:30-8:45	Digital Computing & Cryomemory Chair's Introduction: Oleg Mukhanov, Hypres	8:30-8:45	Quantum Computing & Control Circuits Chair's Introduction: Will Oliver, MIT LL	8:30-8:45	Detectors, Interfaces, and Systems Chair's Introduction: Francesco Marsili, JPL	8:30-9:00	Checkout
		8:45-9:30	"Cryogenic Computing Complexity" Marc Manheimer, IARPA	8:45-9:30	"Classical optimization using quantum annealing machines" Jamie Kerman, MIT LL	8:45-9:30	"Superconducting detectors and cosmology" Clarence Chang, U. Chicago	9:00-9:40	"Rebooting Computing: motivation, genesis, and context to-date" Chair: Elie Track, IEEE CSC
		9:30-10:15	"RQL & Cryomemory: New Results" Don Miller, NGC	9:30-10:15	"Accurate Qubit Control with Single Flux Quantum Pulses" Rob McDermott, U. Wisconsin	9:30-10:15	"Development of superconducting sensor arrays for terrestrial and astrophysical applications" Joel Ullom, NIST	9:40-10:20	"Rebooted Computer Architectures: past, present, and future" Erik Debenedictis, Sandia
		10:15-10:30	Break	10:15-10:30	Break	10:15-10:30	Break	10:20-11:00	"Superconductivity's role in Rebooting Computing" Scott Holmes, IARPA
		10:30-11:15	"Logic: New Results" Gerald Gibson, IBM	10:30-11:15	"QC update and SFQ Interfaces" Mark Johnson, Dwave	10:30-11:15	"Superconducting Nanowire Detectors: Progress and Promise" Sae Woo Nam, NIST	11:00-11:15	Closing Gerald Gibson, IBM
		11:15-12:00	"Cryomemory: New Results" Tom Ohki, BBN	11:15-12:00	"QC results and SFQ Interfaces" Ofer Naaman, NGC	11:15-12:00	"Superconducting Electronics with Nanowire Cryotrons" Karl Berggren, MIT	11:15-12:00	Break
		12:00-13:00	Lunch	12:00-13:00	Lunch & "A Tribute to Doc Bedard" Host: John Spargo	12:00-13:00	Lunch	12:00-13:00	Lunch
		13:00-13:45	"Superconducting Neuromorphic Computing" Ken Segall, Colgate U.	13:00-13:30		13:00-13:45	" Digital Readout of Quanta" Britton Plourde, Syracuse U.		
15:00-16:00	Check-in and Registration	13:45-14:30	" Fab processes for SFQ VLSI circuits: Status & Challenges" Sergey Tolpygo, MIT LL	13:30-18:00	Free Time	13:45-14:30	"NIST Test Results of C3 Devices and Circuit" Pete Hopkins, NIST		
		14:30-15:00	Free Time			14:30-15:00	Free Time		
16:00-18:00	Reception	16:00-17:30	Panel Discussion "Cryomemory" Chair: Burm Baek, NIST			16:00-17:30	Panel Discussion "Enablers for Digital SCE" Chair: Anna Fox and Sam Benz, NIST		
		17:30-18:00	Free Time			17:30-18:00	Free Time		
18:00-20:00	Dinner	18:00-20:00	Dinner	18:00-20:00	Dinner	18:00-20:00	Dinner		
20:00-22:00	Plenary: Bob Wisnief IBM "Evolving Workloads"	20:00-22:00	Hospitality and Plenary: Stuart Berkowitz Out of the Fog Research "Case Study of Filters for the Navy"	20:00-22:00	Hospitality and Plenary: Deep Gupta, Hypres "A/D Converter Systems"	20:00-22:00	Hospitality and Plenary: Horst Rogalla, NIST, CU Boulder IEEE CSC Distinguished Lecturer "Thoughts about the Future of Superconducting Devices"		

Cryomemory Panel	
Steve Russek	NIST
Igor Vernik	Hypres
Norman Birge	MSU
Don Miller	RQL Memory
Mike Schneider	Commercial Scaling

Digital Enablers Panel	
David Olaya	Intrinsically Shunted JJs
Alan Kleinsasser	JJs and Fabrication
Mark Ketchen	IBM
Oleg Mukhanov	S3J Process
Don Miller	RQL Scaling

Note: Panel Discussions will begin with introduction by the chair, then short 10 min presentations of new and significant research results in an informal & interactive format, followed by general discussions to be moderated by the chair.