

2012 Michigan Quantum Summer School Program

	Monday (5/28)	Tuesday (5/29)	Wednesday (5/30)	Thursday (5/31)	Friday (6/1)
8:30-9:30am	Breakfast (337 West Hall)				
9:30-10:30am	Jeff Kimble (Caltech)	Gretchen Campbell (JQI/NIST/U. of Maryland)	Mark Saffman (University of Wisconsin)	Jungsang Kim (Duke University)	Luming Duan (University of Michigan)
	<i>Multiple Flavors of Quantum Entanglement</i>	<i>Persistent currents and Josephson Junctions in an atom circuit</i>	<i>Rydberg quantum gates and multi-qubit processing</i>	<i>Quantum Computer Architectures: System-Level Approach to Quantum Computing</i>	<i>Fault tolerant quantum computation</i>
10:30-11:00am	Coffee Break (337 West Hall)				
11:00-12:00pm	Mark Saffman (University of Wisconsin)	Jeff Kimble (Caltech)	Dan Gammon (Naval Research Laboratory)	Luming Duan (University of Michigan)	Chris Monroe (University of Maryland)
	<i>Quantum computation and gates with neutral atoms</i>	<i>Quantum Teleportation to Enable Quantum Networks</i>	<i>Quantum dots in quantum information science</i>	<i>Quantum error correction</i>	<i>Quantum Simulations of Magnetism with Trapped Ions</i>
12:00-1:30pm	Lunch Break				
1:30-2:30pm	Gretchen Campbell (JQI/NIST/U. of Maryland)	Martin Zwerlein (MIT)	Jungsang Kim (Duke University)	Duncan Steel (University of Michigan)	Canoe trip
	<i>Superfluid Atom Circuits</i>	<i>Strongly Interacting Fermi Gases (I-III)</i>	<i>Operational understanding of Quantum Error Correction and Fault Tolerance</i>	<i>Coherent Optical Control of Electronic and Nuclear States in a Quantum Dot</i>	
2:30-3:30pm	Martin Zwerlein (MIT)	Chris Monroe (University of Maryland)	3 contributed talks	Dan Gammon (Naval Research Laboratory)	
	<i>Strongly Interacting Fermi Gases (I-III)</i>	<i>Ion Traps: There's Plenty of Room at the Bottom</i>		<i>Entangling two quantum dots</i>	
3:30-4:00pm	Coffee Break (337 West Hall)				
4:00-5:00pm	Martin Zwerlein (MIT)	Mark Saffman (University of Wisconsin)	Dan Gammon (Naval Research Laboratory)	Jungsang Kim (Duke University)	
	<i>Strongly Interacting Fermi Gases (I-III)</i>	<i>Atomic qubits in optical traps and long range Rydberg interactions</i>	<i>Spin in quantum dots</i>	<i>Modular Universal Scalable Ion-Trap Quantum Computer (MUSIQ): Engineering a Quantum Computer</i>	
5:00-6:00pm		Gretchen Campbell (JQI/NIST/U. of Maryland)			
		<i>Atomtronics: Superfluid analogs to (superconducting) electronics</i>			