MI Quantum Summer School Program

Talk Schedule for week 1: August 2nd - 6th

Monday, August 2nd

Time	
8:00-8:55am	Breakfast (335 & 337 West Hall)
8:55-9:00am	Welcoming Remarks
9:00-10:00am	Chris Monroe (University of Maryland) *Engineering spin-spin interactions with individual atoms*
10:00-10:30am	COFFEE BREAK (335 & 337 West Hall)
10:30-11:30am	John Bollinger (NIST) *Ion Crystals and Liquids in Penning Traps*
11:30-1:30pm	LUNCH & DISCUSSION (Ground Level Food Court in Ross School of Business)
1:30-2:30pm	John Martinis (UCSB) *Superconducting qubits*
2:30-3:30pm	Richard Scalettar (University of California, Davis) *An Introduction to Computational Methods for the Fermion Hubbard Hamiltonian*
3:30-4:00pm	COFFEE BREAK (335 & 337 West Hall)
4:00-5:00pm	Iztok Pizorn (Vienna - Verstaraete Group) *Simulation of quantum many-body systems using tensor networks*
5:00-6:00pm	Poster Session & Discussion

Tuesday, August 3rd

Time	
8:00-9:00am	Breakfast (335 & 337 West Hall)
9:00-10:00am	Richard Scalettar (University of California, Davis) *An Introduction to Computational Methods for the Fermion Hubbard Hamiltonian*

10:00-10:30am	COFFEE BREAK (335 & 337 West Hall)
10:30-11:30am	Iztok Pizorn (Vienna - Verstaraete Group) *Simulation of quantum many-body systems using tensor networks*
11:30-1:30pm	LUNCH & DISCUSSION (Ground Level Food Court in Ross School of Business)
1:30-2:30pm	Chris Monroe (University of Maryland) *Quantum simulation of magnetism from the bottom up*
2:30-3:30pm	John Bollinger (NIST) *Quantum Information Experiments in Penning Traps*
3:30-4:00pm	COFFEE BREAK (335 & 337 West Hall)
4:00-5:00pm	John Martinis (UCSB) *Synthesizing arbitrary photon states*
5:00-6:00pm	Poster Session & Discussion

Wednesday, August 4th

Time	
8:00-9:00am	Breakfast (335 & 337 West Hall)
9:00-10:00am	John Martinis (UCSB) *Gates and algorithms in phase qubits*
10:00-10:30am	COFFEE BREAK (335 & 337 West Hall)
10:30-11:30am	Guin-Dar Lin (University of Michigan) *Spin phases in a quantum Ising magnet emulator with trapped ions* Zhexuan Gong (University of Michigan) *Temperature driven structural phase transition for trapped ions*
11:30-1:30pm	LUNCH & DISCUSSION (Ground Level Food Court in Ross School of Business)
1:30-2:30pm	Richard Scalettar (University of California, Davis) *An Introduction to Computational Methods for the Fermion Hubbard Hamiltonian*
2:30-3:30pm	Iztok Pizorn (Vienna - Verstaraete Group) *Simulation of quantum many-body systems using tensor networks*

3:30-4:00pm	COFFEE BREAK (335 & 337 West Hall)
4:00-5:00pm	Leonid Butov (UCSD) *Cold excitons*
5:00-6:00pm	Poster Session & Discussion

Thursday, August 5th

Time	
8:00-9:00am	Breakfast (335 & 337 West Hall)
9:00-10:00am	Leonid Butov (UCSD) *Cold excitons*
10:00-10:30am	COFFEE BREAK (335 & 337 West Hall)
10:30-11:30am	Peter Littlewood (University of Cambridge) *Exciton and polariton condensation*
11:30-1:30pm	LUNCH & DISCUSSION (Ground Level Food Court in Ross School of Business)
1:30-2:30pm	Peter Littlewood (University of Cambridge) *Exciton and polariton condensation*
2:30-3:30pm	Yoshi Yamamotot (Stanford) *Coherence and superfluidity of exciton-polariton condensates*
3:30-4:00pm	COFFEE BREAK (335 & 337 West Hall)
4:00-5:00pm	Luis Orozco (JQI) *Cavity QED with atoms*
5:00-6:00pm	Poster Session & Discussion

Friday, August 6th

Time	
8:00-9:00am	Breakfast (335 & 337 West Hall)
9:00-10:00am	Luis Orozco (JQI)

	Discrete symmetry tests in atomic systems
10:00-10:30am	COFFEE BREAK (335 & 337 West Hall)
10:30-11:30am	Luis Orozco (JQI) *The weak interaction in atomic systems*
11:30-1:30pm	LUNCH & DISCUSSION (Ground Level Food Court in Ross School of Business)
1:30-2:30pm	Leonid Butov (UCSD) *Cold excitons*
2:30-3:30pm	Peter Littlewood (University of Cambridge) *Exciton and polariton condensation*
3:30-4:00pm	COFFEE BREAK (335 & 337 West Hall)
4:00-5:00pm	Yoshi Yamamoto (Stanford) *Coherence and superfluidity of exciton-polariton condensates*
5:30pm	Dominick's