



Workshop on Quantum Engineering Infrastructure

Tuesday, April 13, 2021 – Thursday, April 15, 2021

This workshop, sponsored by the National Science Foundation, will be held (virtually via Zoom) from April 13-15, 2021. The workshop has two main goals: (1) to educate the community of quantum researchers funded by the NSF as to how their projects can be supported by the NNCI nanofabrication network and (2) to inform a strategic vision for the future of quantum fabrication infrastructure in the United States so that shared national resources meet the needs of quantum engineered systems. The workshop will combine presentations from leading researchers in quantum information sciences with targeted breakout sessions to develop concrete action items to address the fabrication needs for this community.

Schedule

Time (EDT)	DAY 1 Tuesday, 4/13	DAY 2 Wednesday, 4/14	DAY 3 Thursday, 4/15
12:00 PM	Welcome, Steven Koester <i>U Minnesota</i>	Welcome, Steven Koester <i>U Minnesota</i>	Welcome, Steven Koester <i>U Minnesota</i>
12:05 PM	Welcome, Dawn Tilbury , <i>NSF</i>	Intro to NQCO, Alex Cronin , <i>NQCO</i>	NNCI node presentations: <i>Minnesota, Cornell, Harvard, and Nebraska</i>
12:10 PM	Intro to NNCI program, Lawrence Goldberg , <i>NSF</i>	NNCI node presentations: <i>Stanford, U Washington, NC State, and Montana State</i>	
12:15 PM	Overview of NNCI program, Oliver Brand , <i>Ga Tech</i>		
12:35 PM	NSF Center for Quantum Networks, Saikat Guha , <i>U Arizona</i>	NSF Quantum Foundry, Ania Bleszynski Jayich , <i>UCSB</i>	DOE Quantum Science Center, David Dean , <i>ORNL</i> (starting at 12:30 PM)
1:05 PM	<i>Break</i>	<i>Break</i>	<i>Break (starting at 1:00 PM)</i>
1:15 PM	Superconducting Qubits 1, David Schuster , <i>U Chicago</i>	Color Centers & Optics 1, Jelena Vuckovic , <i>Stanford U</i>	Topological Qubits 1, Chris Palmstrøm , <i>UCSB</i>
1:45 PM	Superconducting Qubits 2, Will Oliver , <i>MIT-LL</i>	Color Centers & Optics 2, Kai- Mei Fu , <i>U Washington</i>	Topological Qubits 2, Amir Yacoby , <i>Harvard U</i>
2:15PM	<i>Break</i>	<i>Break</i>	<i>Break</i>
2:30 PM	Trapped Ions 1, Kenneth Brown , <i>Duke U</i>	Color Centers & Optics 3, Dirk Englund , <i>MIT</i>	Spin Qubits 1, Mark Eriksson , <i>UW-Madison</i>
3:00 PM	Trapped Ions 2, Susan Clark , <i>Sandia National Labs</i>	Color Centers & Optics 4, Marko Lončar , <i>Harvard U</i>	Spin Qubits 2, Jason Petta , <i>Princeton U</i>
3:30 PM	Breakout 1, SC Qubit Infrastructure	Breakout 2, Trapped Ion Infrastructure	Breakout, Color Centers & Optics Infrastructure
4:30PM	Breakout 1, Topological Infrastructure	Breakout 1, Topological Infrastructure	Breakout 2, Spin Qubit Infrastructure
4:30PM	<i>Breakout Summary Reports</i>	<i>Breakout Summary Reports</i>	<i>Breakout Summary Reports</i>
5:00PM	<i>Adjourn</i>	<i>Adjourn</i>	<i>Adjourn</i>



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Logistics provided by the Cornell Nanofabrication Facility