WK4 CNM: Photon Qubit Entanglement and Transduction
Organizers: Xuedan Ma, Xufeng Zhang, and Stephen Gray (all CNM)

Session 1: **Quantum Optics and Nanophotonics** (Session Chair: Xuedan Ma)

8:30 Qiang Lin (University of Rochester)
Manipulating Quantum States of Photons on Integrated Photonic Chips

9:15 Virginia Lorenz (University of Illinois, Urbana-Champaign)
Engineering Photonic Quantum States for Quantum Applications

10:00 Break

10:30 Michael Reimer (University of Waterloo)
On-demand Generation of Bright Entangled Photon Pairs

11:15 German Kolmakov (NYC College of Technology, CUNY)
Optical Detection and Storage of Entanglement in Plasmonically Coupled Quantum-Dot Qubits

12:00 Lunch

1:30 Nick Vamivakas (University of Rochester)
Quantum Optics with Atomically Thin Materials

Session 2: **Quantum Transduction Systems** (Session Chair: Xufeng Zhang)

2:15 Hailin Wang (University of Oregon)
Mechanically Mediated Quantum Networks of Spins in Diamond

3:00 Break

3:30 Hoi-Kwan Lau (The University of Chicago)
High-fidelity Bosonic Quantum State Transfer Using Imperfect Transducers and Interference

4:15 Miguel Levy (Michigan Technological University)
Faraday Effect Enhancement in Nanoscale Iron Garnet Films

5:00 Adjourn