

Applied Physics and Materials Science

Session **G**

Room: 125 Steele Lab

1:00 - 1:20 PM	Belle L. Chen <i>Donald S. Clark SURF Fellow</i>	Characterization of TiO ₂ electron transport layers for transition metal dichalcogenide photovoltaics	Harry A. Atwater, Jr. <i>Howard Hughes Professor of Applied Physics and Materials Science</i> Rachel Tham <i>Graduate Student in Materials Science</i>
1:20 - 1:40 PM	Nathan Jay <i>Kiyo and Eiko Tomiyasu SURF Scholar</i>	Simulations of Shor's algorithm with reduced density matrices	Marco Bernardi <i>Professor of Applied Physics, Physics, and Materials Science</i>
1:40 - 2:00 PM	Alexander P. Plekhanov <i>Stephen Adelman Memorial SURF Fellow</i>	Practical spaceplates for ultra-compact optical systems	Andrei Faraon <i>William L. Valentine Professor of Applied Physics and Electrical Engineering</i> Phillippe M. Pearson <i>Graduate Student in Applied Physics</i>
2:00 - 2:20 PM	Mark A. Gherghetta	Developing and optimizing an acousto-optic deflector (AOD) system for trapped-ion quantum logic operations	Crystal Noel <i>Assistant Professor of Electrical and Computer Engineering, Duke University</i> Jerry Chen <i>Graduate Student in Electrical and Computer Engineering, Duke University</i> Manuel A. Endres <i>Professor of Physics</i>
2:20 - 2:40 PM	Benjamin L. Boone <i>Robert K. and Alice L. Roney SURF Fellow</i>	Mitigating decoherence in superconducting qubits via a floating merged-element transmon embedded in a phononic shield	Oskar J. Painter <i>John G Braun Professor of Applied Physics and Physics</i> Matthew Davidson <i>Graduate Student in Applied Physics</i>
2:40 - 3:00 PM	Daniel Q. Wareham <i>Anne and Ray Destabelle SURF Fellow</i>	Nanofabrication of metal-vacuum-metal tunnel junctions via angle deposition	Axel Scherer <i>Bernard A. Neches Professor of Electrical Engineering, Applied Physics, and Physics; Merkin Institute Professor</i> Geraldine Silva Galindo <i>Graduate Student in Medical Engineering</i>

3:00 - 3:10 PM	BREAK		
3:10 - 3:30 PM	<i>Sanzhar Bissenali</i>	Deterministic single atom loading into optical tweezers	Jeff Thompson <i>Associate Professor of Electrical and Computer Engineering, Princeton University</i> Michael Peper <i>Postdoctoral Research Associate in Electrical and Computer Engineering, Princeton University</i> Andrei Faraon <i>William L. Valentine Professor of Applied Physics and Electrical Engineering</i>
3:30 - 3:50 PM	<i>Richard H. Feng</i>	Design and implementation of a tunable piezoelectric pressure system for layered 2D materials	Stevan Nadj-Perge <i>Professor of Applied Physics and Materials Science</i>
3:50 - 4:10 PM	<i>Hana Hisamune</i> <i>Citadel Global Fixed Income SURF Fellow</i>	Photoinduced Ag doping for stabilizing mixed-halide perovskites	Barry Rand <i>Assistant Professor of Electrical Engineering, Princeton University</i> Julia C. Brubach <i>Graduate Student in Electrical Engineering, Princeton University</i> Harry A. Atwater, Jr. <i>Howard Hughes Professor of Applied Physics and Materials Science</i>
4:10 - 4:30 PM	<i>Audrey S. Chyung</i> <i>DaRin Butz SURF Fellow</i>	Gradient-controlled and templated TBA-based freeze casting of porous prismatic SiOC scaffolds	Katherine T. Faber <i>Simon Ramo Professor of Materials Science</i> Wesley D. Patel <i>Graduate Student in Chemical Engineering</i>
4:30 - 4:50 PM	<i>Jonathan Dawit</i>	Combining magnetic susceptibility measurements with a mathematical approach to modeling inductive coils to approximate the London penetration depths of superconductors	Joseph L. Falson <i>Assistant Professor of Materials Science; William H. Hurt Scholar</i> Reiley J. Dorrian <i>Graduate Student in Applied Physics</i>
4:50 - 5:10 PM	<i>Yan Che</i> <i>Samuel P. and Frances Krown SURF Fellow</i>	A LEEM study on graphene growth	Joseph L. Falson <i>Assistant Professor of Materials Science; William H. Hurt Scholar</i> Joseph L. Falson <i>Assistant Professor of Materials Science; William H. Hurt Scholar</i>