

Applied Physics and Materials Science

Session **J**

Room: 125 Steele

1:00 - 1:20 PM	Ann E. Alekseenko University of California, Berkeley <i>KNI SURF-the-WAVE Prize Fellow</i>	Structure and Composition Optimization of FeWO ₄ Photoanodes Enhance Photoresponse in PLD Grown Thin Films	Harry A. Atwater <i>Howard Hughes Professor of Applied Physics and Materials Science</i> John Hylak <i>Graduate Student in Chemical Engineering</i>
1:20 - 1:40 PM	Carlton G. Passley Delaware State University	Low-Cost Multilayer Antireflective Coatings for Extra-Atmospheric Photovoltaics	Harry A. Atwater <i>Howard Hughes Professor of Applied Physics and Materials Science</i> Susana Torres-Londono <i>Graduate Student in Applied Physics</i>
1:40 - 2:00 PM	Siam Sarower Kennesaw State University <i>Southern California Edison WAVE Fellow</i>	Mode-resolved Study of Electron- Phonon Interactions in Monolayer and Bilayer MoS ₂	Marco Bernardi <i>Professor of Applied Physics, Physics, and Materials Science</i> David Abramovitch <i>Graduate Student in Applied Physics</i>
2:00 - 2:20 PM	Henrik N. Barck Harvey Mudd College <i>KNI SURF-the-WAVE Prize Fellow</i>	Designing CMOS Fabricated Microrobotic Actuators With Origami Folding Motion	Chiara Daraio <i>G. Bradford Jones Professor of Mechanical Engineering and Applied Physics; Investigator, Heritage Medical Research Institute</i> Xiaoxiao Xiong <i>Graduate Student in Physics</i>
2:20 - 2:40 PM	Fernando Milach Teixeira Iowa State University <i>Joseph Rhodes, Jr., WAVE Fellow</i>	Mechanical Characterization and Eutectic Impact on Additively Manufactured Ceramic Composites for Space Exploration	Katherine T. Faber <i>Simon Ramo Professor of Materials Science</i> Zachary C. Ahmad <i>Graduate Student in Materials Science</i>
2:40 - 2:50 PM	BREAK		
2:50 - 3:10 PM	OPEN		

3:10 - 3:30 PM	Parthorn Ammawat <i>Soli Deo Gloria SURF Fellow</i>	Design of an Electromagnetic Cat Qubit and Development of Josephson Junction Fabrication Process	Oskar J. Painter <i>John G Braun Professor of Applied Physics and Physics</i> Piero Chiappina <i>Graduate Student in Physics</i>
3:30 - 3:50 PM	Alan Zhu University of Pennsylvania	Long-range Simultaneous Two-qubit Gates Using Dual-rail Transmons With In Situ Erasure Detection	Oskar J. Painter <i>John G Braun Professor of Applied Physics and Physics</i> Gihwan Kim <i>Graduate Student in Applied Physics</i>
3:50 - 4:10 PM	Avani Ranka Swarthmore College	Study of Erbium Doping in Germano-silicate Photonic Integrated Circuits	Kerry J. Vahala <i>Ted and Ginger Jenkins Professor of Information Science and Technology and Professor of Applied Physics</i> Haojing Chen <i>Postdoctoral Scholar Research Associate in Applied Physics and Materials Science</i>
4:10 - 4:30 PM	Matthew J. Cantor <i>Dr. Alan K. Marumoto SURF Fellow</i>	Probing Spin-orbit Coupling in Bilayer Graphene via Symmetric Proximity Coupling From WS ₂ Encapsulation	Stevan Nadj-Perge <i>Professor of Applied Physics and Materials Science</i> Siu Chi Wang <i>Graduate Student in Applied Physics</i> Ankan Mukherjee <i>Graduate Student in Applied Physics</i> Nastasija Conic <i>Graduate Student in Applied Physics</i>
4:30 - 4:50 PM	Jamie Talmor Oberlin College <i>KNI SURF-the-WAVE Prize Fellow</i>	Fabrication of Helical trilayer Graphene, a Two-dimensional Material With Exotic Electronic and Topological Properties	Stevan Nadj-Perge <i>Professor of Applied Physics and Materials Science</i>