

SCI Colloquium – Schedule

- 7:30—8:50am Breakfast
- 8:50am Introductory remarks
- Oral session A
 - 9:00—9:15am **Jaime Moya** and Emilia Morosan, *Topological and Anomalous Hall Effects Driven by Correlations in a Square-Net Centrosymmetric Eu-Based Compound*
 - 9:15—9:30am **Weijian Li** and Gururaj V. Naik, *2D Charge-Density-Wave Material for Tunable Nanophotonics - 1T-TaS₂*
 - 9:30—9:45am **Eduardo Ibarra Garcia Padilla**, S. Dasgupta, H. Wei, K. R. A. Hazzard, R. T. Scalettar, S. Taie, and Y. Takahashi, *Universal Thermodynamics of an SU(N) Fermi-Hubbard Model*
 - 9:45—10:00am **Soumya Kanungo**, J. D. Whalen, Y. Lu, M. Yuan, S. Dasgupta, F. B. Dunning, K. R. A. Hazzard, and T. C. Killian, *Realizing Su-Schrieffer-Heeger Topological Edge States in Rydberg-Atom Synthetic Dimensions*
 - 10:00—10:15am **Andrey Baydin**, Felix G. G. Hernandez, Martin Rodriguez-Vega, Anderson K. Okazaki, Fuyang Tay, G. Timothy Noe II, Ikufumi Katayama, Jun Takeda, Hiroyuki Nojiri, Paulo H. O. Rappl, Eduardo Abramof, Gregory A. Fiete, and Junichiro Kono, *Magnetic Control of Soft Chiral Phonons in PbTe*
- 10:15—10:30am Break
- Oral Session B
 - 10:30—10:45am **Emily Searles**, Sean S. E. Collins, Stephan Link, and Christy F. Landes, *Light Capture and Energy Conversion in Plasmonic-Polymeric Hybrids*
 - 10:45—11:00am **Zhihua Cheng** and Matthew R. Jones, *Assembly of Planer Chiral Enantiomers from Achiral Tetrahedra Nanoparticles*
 - 11:00—11:15am **Bo Wang**, Lijie Duan, Kimberly Heck, Jacob Arredondo, Thomas P. Senftle, Paul Westerhoff, and Michael S. Wong, *Efficient Photocatalytic PFOA Degradation Over Boron Nitride*
 - 11:15—11:30am **Sakib Hassan**, Xuan Zhao, Guillaume Duret, and Jacob T. Robinson, *Real-time Detection of Nitric Oxide using Photonic Microring Resonator in Physiological Medium*

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- 11:30—11:45pm **Lin Yuan**, Jingyi Zhou, Ming Zhang, John Mark P. Martinez, Xuelan Wen, Hossein Robotjazi, Linan Zhou, Emily A. Carter, Peter Nordlander, and Naomi J. Halas, *Synergistic Plasmonic Photocatalysis on Al-Pd-Fe Trimetallic Nanodisks*
- 12:00—3:00pm Lunch and Joint UG & Grad Poster Session
- Oral Session C
 - 3:00—3:15pm **Jonathan Minoff**, Shah Saad Alam, Fabio Anselmi, Yilong Ju, Ankit Patel, and Han Pu, *Opening the Black Box: Examining Convolutional Neural Network Approximations of Quantum Spin Systems*
 - 3:15—3:30pm **Fuyang Tai**, Jiaming He, Nicolas Marquez Peraca, Xinwei Li, Andrey Baydin, Jianshi Zhou, and Junichiro Kono, *Terahertz Magneto-optical Spectroscopy of $\text{La}_{0.875}\text{Sr}_{0.125}\text{MnO}_3$*
 - 3:30—3:45pm **Xinghai Zhang** and Matthew S. Foster, *Dissipative Hot-Spot Enabled Shock and Bounce Dynamics via Terahertz Quantum Quenches in Helical Edge States*
 - 3:45—4:00pm **Grant Gorman**, MacKenzie Warrens, and Thomas Killian, *Laser-Induced Fluorescence Imaging of a Magnetically Confined, Spin-Polarized Ultracold Neutral Plasma*
 - 4:00—4:15pm **Visal So**, Roman Zhuravel, Madeline Sheffield, Chloe Liebenthal, and Guido Pagano, *Toward the Studies of Many-Body Phenomena with a Trapped-Ion Quantum Simulator*
- 4:15—4:30pm Break
- Oral Session D
 - 4:30—4:45pm **Aaron Bayles**, Shu Tian, Lin Yuan, Yigao Yuan, Jingyi Zhou, Christian Jacobson, Corbin Farr, David Solti, Peter Nordlander, and Naomi Halas, *Al@TiO₂ Core-Shell Structures for Hot Carrier Photocatalysis*
 - 4:45—5:00pm **Yuefei Huang**, Evgeni S. Penev, and Boris I. Yakobson, *Electron Transport through Nucleobase-Bonded Graphene Nanoribbon Junctions*
 - 5:00—5:15pm **Michelle Duran-Chaves**, I. R. Siqueira, O. S. Dewey, J. De La Garza, C. J. Ginestra, and M. Pasquali, *Effective Aspect Ratio, Phase Behavior and Macroscopic Fiber Properties of Polydisperse, Bimodal Carbon Nanotube Solutions*
 - 5:15—5:30pm **Yingru Song** and Geoff Wehmeyer, *Maximizing and Minimizing the Boundary Scattering Mean Free Path in Diameter-Modulated Coaxial Cylindrical Nanowires*
 - 5:30—5:45pm **Thao Nguyen**, Hamid Teimouri, and Anatoly B. Kolomeisky, *Single-Cell Stochastic Modeling of the Action of Antimicrobial Peptides on Bacteria*
- 6:00pm Award Ceremony and Dinner Cocktail