

Poster Session

Location: Hameetman Multipurpose Room

4:00 - 5:45 PM	Adais M. Arora <i>Thomas C. Hays SURF Fellow</i>	Alkyne synthesis by the cross-coupling of nitroalkanes with nitroalkenes	Marvin Parasram <i>Assistant Professor of Chemistry, New York University</i> Brian M. Stoltz <i>Victor and Elizabeth Atkins Professor of Chemistry; Investigator, Heritage Medical Research Institute</i>
4:00 - 5:45 PM	Michelle Cai <i>John Stauffer SURF Fellow</i>	Morphological and immune response to gas vesicle cavitation by focused ultrasound in mouse glioma models	Mikhail G. Shapiro <i>Max Delbrück Professor of Chemical Engineering and Medical Engineering; Investigator, Howard Hughes Medical Institute</i> George H. Daghliah <i>Graduate Student in Bioengineering</i>
4:00 - 5:45 PM	Hongqiao Chen <i>Kiyo and Eiko Tomiyasu SURF Scholar</i>	On-policy self-distillation for physically plausible video generation	Georgia Gkioxari <i>Assistant Professor of Computing and Mathematical Sciences and Electrical Engineering; William H. Hurt Scholar</i> Ziqi Ma <i>Graduate Student in Computing and Mathematical Sciences</i>
4:00 - 5:45 PM	Lucas N. Garcia <i>Sidney and Nancy Petersen SURF Fellow</i>	Heritable targeted DNA insertion using the R2Tg retroelement complex	Gözde S. Demirer <i>Clare Booth Luce Assistant Professor of Chemical Engineering</i> Kimberley T. Muchenje <i>Graduate Student in Biology</i>
4:00 - 5:45 PM	Ido Geffen <i>Robert J. McEliece and David Rutledge SURF Fellow</i>	Printed nanowire phototransistors arrays with dual-modulated synaptic plasticity for neuromorphic computing	Ravinder S. Dahiya <i>Professor of Electrical and Computer Engineering, Northeastern University</i> R. Michael Alvarez <i>Flintridge Foundation Professor of Political and Computational Social Science</i>

4:00 - 5:45 PM	Shrish Goel <i>SURF Board SURF Fellow</i>	Designing MOF based catalysts through electron density descriptors	Anima Anandkumar <i>Bren Professor of Computing and Mathematical Sciences</i> Danish Khan <i>Postdoctoral Scholar</i> Research Associate in Computing and Mathematical Sciences
4:00 - 5:45 PM	Nikash Gupta <i>Shubhangi and Sharad Fadnavis SURF Fellow</i>	Virtual Merge models in Hopf algebra Markov chains	Matilde Marcolli <i>Robert F. Christy Professor of Mathematics and Computing and Mathematical Sciences</i>
4:00 - 5:45 PM	William Jouayed	Investigating the role of photoreceptor-derived extracellular vesicles in early diabetic retinopathy using the TIGER mouse	Emma Lessieur <i>Principal Investigator, Doheny Eye Institute</i> Melany L. Hunt <i>Dotty and Dick Hayman Professor of Mechanical Engineering</i>
4:00 - 5:45 PM	Elianna G. Kondylis	Using reaction network structure to recover metabolic rates from carbon labeling measurements	Gregory Stephanopoulos <i>Professor of Chemical Engineering, Massachusetts Institute of Technology</i> Rustem F. Ismagilov <i>Ethel Wilson Bowles and Robert Bowles Professor of Chemistry and Chemical Engineering; Merkin Institute Professor</i>
4:00 - 5:45 PM	Henry B. Lane <i>Holo Family SURF Fellow</i>	A GPU-native complex auxiliary-space Maxwell solver and high-order finite-element solver for scalable 3D magnetotelluric forward modeling	Paul D. Asimow <i>Eleanor and John R. McMillan Professor of Geology and Geochemistry</i> Carl Swindle <i>Postdoctoral Scholar</i> Research Associate in Geology
4:00 - 5:45 PM	Fengmi Li The Chinese University of Hong Kong, Shenzhen <i>VURP Fellow</i>	Revisiting the hyperfine structure and Bell's theorem via co-quantum dynamics (CQD)	Lihong Wang <i>Bren Professor of Medical Engineering and Electrical Engineering</i>

4:00 - 5:45 PM	Alexis N. Lindenfelser	Investigating oxygen vacancy formation in MnFeCoNiCuO _x high entropy spinel oxides using density functional theory	Bryan Goldsmith <i>Assistant Professor of Chemical Engineering, University of Michigan Ann Arbor</i> Yu-Chuan Lin <i>Professor of Chemical Engineering, National Cheng Kung University</i> Sila Donmez <i>Graduate Student in Chemical Engineering, University of Michigan</i> Jimmy Wen <i>Graduate Student in Chemical Engineering, National Cheng Kung University</i> Kara D. Fong <i>Assistant Professor of Chemical Engineering; William H. Hurt Scholar</i>
4:00 - 5:45 PM	Eric Y. Lu <i>Ernest R. Roberts SURF Fellow</i>	Continuous best-response learning for direct exploitability descent	Tony Yue Yu <i>Professor of Mathematics</i>
4:00 - 5:45 PM	Xingchuan Ma <i>Susan S. Murakami SURF Fellow</i>	Biosynthesis and cellular effects of phenylacetyl-carnitine, a gut microbiota-derived metabolite linked to Alzheimer's disease	Sarkis K. Mazmanian <i>Luis B. and Nelly Soux Professor of Microbiology; Merkin Institute Professor</i> Daniel Dumitrescu <i>Postdoctoral Scholar Research Associate in Biology and Biological Engineering</i>
4:00 - 5:45 PM	Yingying Ma <i>Carole and Sidney Meltzner SURF Fellow</i>	Building native-resolution maps and interactive visualization for Enceladus's south polar terrain	Mark Simons <i>John W. and Herberta M. Miles Professor of Geophysics</i>
4:00 - 5:45 PM	Prince Mutegetsii <i>Carol Carmichael SURF Fellow</i>	Detecting forest tipping points: Adapting a Landsat data pipeline for wildfire analysis in California	Christian Frankenberg <i>Chandler Family Professor of Environmental Science and Engineering; Senior Research Scientist, JPL</i> Eva-Marie Metz <i>Postdoctoral Scholar Research Associate in Environmental Science and Engineering</i>
4:00 - 5:45 PM	Rachel E. Nazareth <i>Alain Porter Memorial SURF Fellow</i>	Spectroscopic validation of candidate giant exoplanets around M-dwarf stars (GEMS)	Dimitri P. Mawet <i>David Morrisroe Professor of Astronomy; Senior Research Scientist, JPL</i> Andrea Lin <i>Postdoctoral Scholar Research Associate in Astronomy</i>

4:00 - 5:45 PM	Jia-Xin Nien <i>John Stauffer SURF Fellow</i>	Structural analysis and reconstitution of RNA polymerase II ubiquitination	Isaac Fianu <i>Assistant Professor of Biochemistry; William H. Hurt Scholar</i> Anjali Mirmira <i>Graduate Student in Chemistry</i>
4:00 - 5:45 PM	Cleatus R. Oakes	Critical mineral recovery via electrosorption across zeolite films	Pavel A. Kots <i>Assistant Professor of Chemical Engineering</i> Mark E. Davis <i>Warren and Katharine Schlinger Professor of Chemical Engineering, Emeritus</i>
4:00 - 5:45 PM	Maria T. Papazoglu	Evaluating the accuracy and stability of automatic differentiation of eigenvalue computations	Michael Overton <i>Silver Professor of Computer Science and Mathematics, New York University</i> Tim Mitchell <i>Associate Professor of Computer Science, Queens College</i> Joel A. Tropp <i>Steele Family Professor of Applied and Computational Mathematics</i>
4:00 - 5:45 PM	Kyra T. Phaychanpheng	Wave attenuation and hydrodynamic analysis of artificial rocky reefs	Christine M. Baker <i>Assistant Professor of Civil and Environmental Engineering, Stanford University</i> John O. Dabiri <i>Centennial Professor of Aeronautics and Mechanical Engineering</i>
4:00 - 5:45 PM	Ethan Pichon <i>Robert T. Herzog SURF Fellow</i>	Creating benchmarks for robust space robotics decision making with reinforcement learning	Benjamin Riviere <i>Assistant Professor of Mechanical and Aerospace Engineering, New York University</i> Gunter Niemeyer <i>Teaching Professor of Mechanical and Civil Engineering</i>

4:00 - 5:45 PM	Oleksandra Pyshna	Transition from inspiral to plunge for eccentric EMRIs with spinning secondary	Katerina Chatziioannou <i>Professor of Physics; William H. Hurt Scholar</i> Lucy M. Thomas <i>Postdoctoral Scholar</i> Research Associate in Physics Lisa V. Drummond <i>Sherman Fairchild</i> Postdoctoral Scholar Research Associate in Physics
4:00 - 5:45 PM	Ryan M. Rodrigue	Directional Gaussian smoothing for gradient descent	Federico Pasqualotto <i>Assistant Professor of Mathematics, University of California, San Diego</i> R. Michael Alvarez <i>Flintridge Foundation</i> Professor of Political and Computational Social Science
4:00 - 5:45 PM	Brittany M. Rosario <i>Heather and Paul Haaga SURF Fellow</i>	High-quality motion capture for mocap-to-simulation pipeline for powered prosthesis	Aaron D. Ames <i>Bren Professor of Mechanical and Civil Engineering, Control and Dynamical Systems, and Aerospace</i>
4:00 - 5:45 PM	Trisha A. Sabadra	Adapting high-resolution spectroscopy pipelines for IGRINS-2: Studying WASP-189b's atmosphere	Fei Dai <i>Assistant Professor of Astronomy, University of Hawaii</i> Jingyi Zhang <i>Graduate Student in Astronomy, University of Hawaii</i> Katherine L. Bouman <i>Professor of Computing and Mathematical Sciences, Electrical Engineering, and Astronomy; Rosenberg Scholar; Investigator, Heritage Medical Research Institute</i>
4:00 - 5:45 PM	Efe Sakarya	Radial curriculum learning for implicit neural representation-based reconstruction of non-Cartesian dynamic MRI	Shreyas S. Vasanawala <i>Professor of Radiology; Director of MRI, Stanford Children's Hospital</i> Ali Syed <i>Medical Director of Pediatric MRI, Stanford University</i> Terrence Jao <i>Clinical Assistant Professor of Radiology, Stanford University</i> Yisong Yue <i>Professor of Computing and Mathematical Sciences</i>

4:00 - 5:45 PM	Yourui Shao	Task-driven models for neural speech representations	Francis R. Willett <i>Assistant Professor of Neurosurgery, Stanford University</i> Yisong Yue <i>Professor of Computing and Mathematical Sciences</i>
4:00 - 5:45 PM	Arjun Sharma <i>Larson Scholar</i>	Reflector-solver co-training for large language models	Yisong Yue <i>Professor of Computing and Mathematical Sciences</i> Atharva Sehgal <i>Postdoctoral Scholar</i> Research Associate in Computing and Mathematical Sciences
4:00 - 5:45 PM	Daniella E. Sherman <i>Edward W. Hughes SURF Fellow</i>	Computational modeling of nitrogen reduction intermediates on LaFeO ₃ and LuFeO ₃ perovskite oxide surfaces	William A. Goddard III <i>Charles and Mary Ferkel Professor of Chemistry, Materials Science, and Applied Physics</i> Sejun Kim <i>Postdoctoral Scholar</i> Research Associate in Chemistry
4:00 - 5:45 PM	Shreyas Singh <i>Rita A. and Øistein Skjellum SURF Fellow</i>	Sequential quantum circuits mapping between symmetry-protected gapless models	Xie Chen <i>Eddleman Professor of Theoretical Physics</i> Vibhu Ravindran <i>Graduate Student in Physics</i>
4:00 - 5:45 PM	Joe F. Smith	Ruling out an intermediate mass progenitor donor in V404 Cygni	Kareem J. El-Badry <i>Associate Professor of Astronomy</i> Cheyanne Shariat <i>Graduate Student in Astrophysics</i>
4:00 - 5:45 PM	Amina Tajammal	Effects of IFN γ signaling on Treg phenotype, transcriptional state, and suppressive function	Andrew Luster <i>Persis, Cyrus, and Marlow B. Harrison Professor of Medicine, Harvard University</i> Alexis Yero Diaz <i>Research Fellow in Medicine, Massachusetts General Hospital</i> Ellen Rothenberg <i>Edward B. Lewis Professor of Biology</i>
4:00 - 5:45 PM	Katherine W. Tam <i>Carl F. Braun SURF Fellow</i>	Mitochondrial inheritance and fertilization-driven asymmetry in the early mouse embryo	Magdalena Zernicka-Goetz <i>Bren Professor of Biology and Biological Engineering</i> Breanna M. McMahon <i>Graduate Student in Biology</i>

4:00 - 5:45 PM	<i>Idil A. Turasi</i>	Self-driving imaging system for fetal brain magnetic resonance imaging (MRI)	Polina Golland <i>Sunlin (1966) and Priscilla Chou Professor of Electrical Engineering and Computer Science, Massachusetts Institute of Technology</i> Babak Hassibi <i>Mose and Lillian S. Bohn Professor of Electrical Engineering and Computing and Mathematical Sciences</i>
4:00 - 5:45 PM	<i>William A. Wrolstad</i> <i>Dr. Eduardo Repetto and Ms. Carla Figueroa SURF Fellow</i>	Learning-based methods for ground-effect estimation on thrust-vector-controlled rocket vehicles	Mory Gharib <i>Hans W. Liepmann Professor of Aeronautics and Medical Engineering</i> Jack N. Caldwell <i>Graduate Student in Aerospace</i>
4:00 - 5:45 PM	<i>Charlie Q. Yang</i> <i>Kiyo and Eiko Tomiyasu SURF Scholar</i>	What if we trained video models on Mars?	Pietro Perona <i>Allen E. Puckett Professor of Electrical Engineering</i> Raphaela H. Kang <i>Graduate Student in Computation and Neural Systems</i> Sevan Brodjian <i>Graduate Student in Computation and Neural Systems</i>