

Aeronautics

Session **F**

Room: B122 Gates Annex

10:30 - 10:50 AM	Jeylin E. Lee <i>Flintridge Foundation SURF Fellow</i>	Electronics design and sensor calibration of the magnetosonic transient plasma analyzer for characterizing hypervelocity impact plasmas on a lunar mission	Sigrid Elshot <i>Professor of Aeronautics and Astronautics, Stanford University</i> Neilabjo Maitra <i>Graduate Student in Aeronautics and Astronautics, Stanford University</i> Glen A. George <i>Teaching Professor of Electrical Engineering</i>
10:50 - 11:10 AM	Lucas J. Favretto <i>Fred and Jean Felberg SURF Fellow</i>	Surface chemistry behavior of carbon-based ablative thermal protective systems under hypersonic flow and temperature	Joanna M. Austin <i>Professor of Aerospace</i> William Feasey <i>Graduate Student in Aerospace</i>
11:10 - 11:30 AM	Priyanka Supraja Balaji	Learning to control: A differentiable optimization approach to robust trajectory generation	Zachary Manchester <i>Boeing Career Development Professor in Aeronautics and Astronautics, Massachusetts Institute of Technology</i> Soon-Jo Chung <i>Bren Professor of Control and Dynamical Systems; Senior Research Scientist, JPL</i>
11:30 - 11:50 AM	OPEN		
11:50 AM - 1:00 PM	LUNCH		
1:00 - 1:20 PM	OPEN		
1:20 - 1:40 PM	Angel O. Guerra <i>Robert I. and Winifred E. Gardner SURF Fellow</i>	Experimental characterization and validation of the PARSEC Icarus lander primary structure design	Mory Gharib <i>Hans W. Liepmann Professor of Aeronautics and Medical Engineering</i> Jack N. Caldwell <i>Graduate Student in Aerospace</i>
1:40 - 2:00 PM	Zoe Lee <i>Dr. Judith Goodstein SURF Fellow</i>	Inverse kinematics derivation and mechanism development for thrust vector control on a self-lander	Mory Gharib <i>Hans W. Liepmann Professor of Aeronautics and Medical Engineering</i> Jack N. Caldwell <i>Graduate Student in Aerospace</i>

2:00 - 2:20 PM	Emily M. Snyder <i>Larson Scholar</i>	A standardized CAN bus data acquisition system for a liquid rocket engine ground test stand	Mory Gharib <i>Hans W. Liepmann Professor of Aeronautics and Medical Engineering</i> Jack N. Caldwell <i>Graduate Student in Aerospace</i>
2:20 - 2:30 PM	BREAK		
2:30 - 2:50 PM	Claire Zhu	RAFT-XDIC: Deep learning-based framework for DIC measurement of mode II shear fractures	Jin Yang <i>Assistant Professor of Aerospace Engineering and Engineering Mechanics, The University of Texas at Austin</i> Zixiang Tong <i>Graduate Student in Engineering Mechanics, The University of Texas at Austin</i> Guruswami Ravichandran <i>John E. Goode, Jr., Professor of Aerospace and Mechanical Engineering</i>
2:50 - 3:10 PM	Mahak Mathur <i>Brenda and Louis J. Alpinieri SURF Fellow</i>	Design and integration of deployment mechanisms for ultralight rollable booms and an elastically-foldable structure	Sergio Pellegrino <i>Joyce and Kent Kresa Professor of Aerospace and Civil Engineering; Senior Research Scientist, JPL</i> Flavia Palmeri <i>Postdoctoral Scholar Research Associate in Aerospace</i>
3:10 - 3:30 PM	Blake T. Morris <i>Dr. Chandler C. Ross SURF Fellow</i>	Novel method for the in-space assembly of membrane structures with a stationary robot	Sergio Pellegrino <i>Joyce and Kent Kresa Professor of Aerospace and Civil Engineering; Senior Research Scientist, JPL</i> Tara Venkatadri <i>Graduate Student in Aerospace</i>
3:30 - 3:50 PM	Dami Kim <i>Frederick W. Drury, Jr., SURF Fellow</i>	Neural operator trajectory prediction for multi-car autonomous racing	Soon-Jo Chung <i>Bren Professor of Control and Dynamical Systems; Senior Research Scientist, JPL</i> Gilchrist X. Johnson <i>Graduate Student in Control and Dynamical Systems</i>
3:50 - 4:10 PM	Ryan M. Rudes <i>Marcella Bonsall SURF Fellow</i>	Long-range, multi-view smartphone demonstrations for robot policy learning	Soon-Jo Chung <i>Bren Professor of Control and Dynamical Systems; Senior Research Scientist, JPL</i> Fengze Xie <i>Graduate Student in Computing and Mathematical Sciences</i>