TUESDAY - AUGUST 5, 2025

	Ballroom	Paper Session #1 Room 1-A	Paper Session #2 Room 1-B	Paper Session #3 Room 4	Classroom Room 2	Computer Lab Eng 405 & 407
8:00	Registration					
8:30	Opening Remarks in the Ballrom					
9:00	Keynote Lecture in the Ballrom					
9:30						
10:00	Coffee Break					
10:30	Overview of the Icarus Material Response Software for TPS Analysis and Sizing	Aerosciences 4 (Aero IV)	Thermal Control & Protection 4 (TC&P IV)	Thermal Control & Protection 5 (TC&P V)	Heat Pipe Short Course	
11:00						
11:30						
12:00	Lunch					
12:30						
1:00	Poster Pitch in the Ballrom					
1:30	Multi-Physics Systems Simulation Using GT-SUITE	Aerosciences 5 (Aero V)	Thermal Control & Protection Special ECF/ESI session	Thermal Control & Protection 6 (TC&P VI)	An Introduction to Direct Simulation Monte Carlo (DSMC)	Thermal Desktop - Ansys
2:00						
2:30						
3:00	Coffee Break					
3:30		Aerosciences 6 (Aero VI)	Interdisciplinary 4 (Inter IV)	Thermal Control & Protection 8 (TC&P VIII)	Introduction to PyFR: A Scalable Open-Source Flow Solver for Scale Resolving Simulations	Thermal Desktop - Ansys
4:00						
4:30						
5:00	Student Poster					
5:30						

TUESDAY TECHNICAL SESSION SCHEDULE

Timeslot			Room 1-A				Room 1-B				Room 4	
10:30-10:50	**Aerosciences 4 (Aero IV)**	Aero IV - 01	Recent Advances in Aeroheating and Thermal Protection System Material Response in the NASA Entry Systems Modeling Project	Justin Haskins (NASA ARC)	**Thermal Control & Protection 4 (TC&P IV)**	TC&P IV - 01	Megawatt-Scale Electrified Aircraft Thermal Management System Sizing	Erik Stalcup (NASA GRC)	**Thermal Control & Protection 5 (TC&P V)**	TC&P IV - 03	Optimization of Battery Thermal Management for LEO Satellites Using Multi-Physics Modeling in GT-SUITE	Massimiliano Mastrogiorgio (Gamma Tech)
10:50 - 11:10		Aero IV - 02	Exploring the Accuracy of CFD Predictions for the Wake of a Hypersonic Inflatable Aerodynamic Decelerator	Clark Pederson (NASA LaRC)		TC&P IV - 02	Thermal Management Through Resonant Instability in Reduced Gravity Environments	Thomas Corbin (UFl)		TC&P V - 02	Additively manufactured ceramic heat pipes with optimized capillary structures	Giancarlo D'Orazio (Cornell)
11:10 - 11:30		Aero IV - 03	Transport-Equations-Based Transition Models for Three-Dimensional High-Speed Flows	Ethan Vogel (NASA LaRC)		TC&P III - 03	Atmospheric Waves Experiment (AWE) Thermal Control System: from Design through On-Orbit Thermal Performance	Mike Holt (SDL)		TC&P V - 03	3D-Printed Loop Heat Pipes for CubeSat, SmallSat, and Lunar Habitat Applications	SaiKiran Hota (ACT)
11:30 - 11:50		Aero IV - 04	Wake Heating Environments on a HIAD Aeroshell using Unstructured CFD	Adam Wise (NASA LaRC)		TC&P III - 04	Atmospheric Waves Experiment (AWE) Thermal Balance: Internal Characterization, Correlation, and Lessons Learned	Matt Ralphs (SDL)		TC&P V - 04	Characterization of Silicon-based Micro-Oscillating Heat Pipes	Zachary Wong (UCLA)
1:30 - 1:50	**Aerosciences 5 (Aero V)**	Aero V - 01	A Reimagining of NASA's DPLR Code	Joshua Finkbeiner (NASA GRC)	**Thermal Control & Protection Special ECF/ESI session**	TC&P ECF	Early Career Faculty Seminar: Ionic liquids for pumped fluid loop applications	Sadaf Sobhani (Cornell)	**Thermal Control & Protection 6 (TC&P VI)**	TC&P VI - 01	Novel Pulsating Heat Pipes Featuring Fractals for Performance Enhancement	Md Zishan Akhter (TII)
1:50 - 2.10		Aero V - 02	Gas-Surface Interaction Models in CFD++	Bruno Lopez (Metacomp)						TC&P VI - 02	Thermal characterization of pulsating heat pipes for antenna and detector-plane cooling applications	Marcin Wójcik (KP Labs)
2:10 - 2:30		Aero V - 03	BLAST: Boundary Layer Analysis & Simulation Tool for Reacting Nonequilibrium Flows	Domenico Lanza (UIUC)		TC&P ESI	Early Stage Innovation Seminar: Additive manufacturing of ceramic heat pipes	Sadaf Sobhani (Cornell)		TC&P VI - 03	High Temperature Oscillating Heat Pipe Radiator	Alex Miller (ThermAvant)
2:30 - 2:50		Aero V - 04	Aerothermodynamics of a General One-Dimensional Compressible Flow in a Duct with Area Change, Friction, Heat Transfer, Rotation, Internal Choking, and Normal Shocks: Modeling and Solution	Bijay Sultanian (TAKANIKI)						TC&P VI - 04	Pulsating Heat Pipe Based Electronics Cooling System	Sai Kiran Hota (ACT)
3:30 - 3:50	**Aerosciences 6 (Aero VI)**	Aero VI - 02	A Flight-to-Ground Mapping Strategy to Reproduce Entry Trajectory Conditions in ICP Facilities	Andrea Scaboro (UIUC)	**Interdisciplinary 4 (Inter IV)**	Inter IV - 01	Thermal Effects of Scene-Based, Lunar Alignment for a Hyperspectral Earth Observation Telescope in Low Earth Orbit	Geneva Vandervinne (Wyvern)	**Thermal Control & Protection 8 (TC&P VIII)**	TC&P VII - 01	Thermal correlation of a mechanically driven loop heat pipe for deep space science missions	Nayli Hayi-Slayman (Maya HTT)
3:50 - 4:10		Aero VI - 03	Boundary Layer Characterization around Graphite Samples in Microwave Nitrogen-Methane Plasmas	Dan Fries (UKy)		Inter IV - 02	The Effect Of Changing The Thickness Of VO2 Thin Films On Emissivity For Passive Thermal Control On Spacecrafts	Jiajun Xu (UDC)		TC&P VII - 02	Non-Integrated Hot-Reservoir Variable Conductance Heat Pipe Tested on Peregrine Lander	Calin Tarau (ACT)
4:10 - 4:30		Aero VI - 04	Approximate Method for Comparing NEQAIR Visible Spectral Emission Predictions Against Onboard Footage	Heston Briant (NASA KSC)		Inter IV - 03	Harnessing Thermoacoustic Power with Bi-Directional Turbines: A Path to Efficient Energy Conversion	Luis A Rodriguez (NASA GRC)		TC&P VII - 03	Thermal Vacuum Testing of a VIPER Loop Heat Pipe	Ezequiel Medici (NASA JSC)
4:30 - 4:50		Aero VI - 01	Rovibrational-specific QCT and master equation analysis on the CNO system for high-energy collisions	Clement Civrais (UCI)						TC&P VII - 04	Double Strokes Active Heat Pipe for Thermal Control	Maged Mossallam (NARSS)