



Event Pathways:

Student Presenters	Additional Events for All Attendees	High School Component
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PDT*	Friday 1-Apr	Saturday 2-Apr	Sunday 3-Apr	PDT*
7:30 AM			Check-In & Light Breakfast	7:30 AM
8:00 AM		Check-In & Light Breakfast		8:00 AM
8:30 AM			Castle Air Museum Tour	8:30 AM
9:00 AM				9:00 AM
9:30 AM				9:30 AM
10:00 AM		Research Presentations		10:00 AM
10:30 AM		Workshops		10:30 AM
11:00 AM		High School Component	Company Expo	11:00 AM
11:30 AM				11:30 AM
12:00 PM				12:00 PM
12:30 PM		Lunch w/ Retired NASA Astronaut Daniel Bursch		12:30 PM
1:00 PM				1:00 PM
1:30 PM			Lunch w/ Research Engineer Philip Grecki + Award Ceremony	1:30 PM
2:00 PM				2:00 PM
2:30 PM		Research Presentations		2:30 PM
3:00 PM		Workshops		3:00 PM
3:30 PM		High School Component	Company Expo	3:30 PM
4:00 PM				4:00 PM
4:30 PM				4:30 PM
5:00 PM	Check-In & Mingling			5:00 PM
5:30 PM				5:30 PM
6:00 PM		Dinner w/ Executive Director Daniel Dumbacher		6:00 PM
6:30 PM	Engineering Panel w/ Alumni			6:30 PM
7:00 PM				7:00 PM
7:30 PM				7:30 PM
8:00 PM				8:00 PM
8:30 PM				8:30 PM
9:00 PM				9:00 PM



Research Paper Competition Schedule
Team & High School Category
Location: Conference Center Room 220

PDT*	Saturday 2-Apr	
10:00 AM	Team	Design of a Lunar Architecture for Tree Traversal in Service of Cabled Exploration
10:30 AM	Team	Characterization of 3D Printed Fuel Grains for Hybrid Rocket Engines
11:00 AM	Team	Water Impact of Rigid Biconic Geometries: An Experimental Investigation into Futuristic Space Capsule Splashdown Events
11:30 AM	Team	Harvesting Thermal Energy from Frictional Braking by using a Thermoelectric Medium
12:00 PM	Lunch w/ Retired NASA Astronaut Daniel Bursch	
1:30 PM	Team	SCAMORSA-1: A camber-morphing wind turbine blade with sliding composite skin
2:00 PM	Team	Fluidic Elastomer Actuator Based Gripper with Integrated Secondary SMA Actuators
2:30 PM	Team	Undergraduate designed Hollow Cathode Hall Effect Thruster
2:55 AM	Break	
3:10 PM	High School	Creating an Angle of Attack indicator for a Schweizer 2-33 and comparing flight efficiency to an ASW 22
3:40 PM	High School	Computational Fluid Dynamics For a Solar Car
4:10 PM	High School	Synthesis and Applications of Flash Joule Heating Graphene for Manufacturing in Space
4:40 PM	Workshops Available	
5:30 PM	Dinner w/ Executive Director Daniel Dumbacher	



Research Paper Competition Schedule
Undergraduate & Master Category
Location: Conference Center Room 215

PDT*	Saturday 2-Apr	
10:00 AM	Undergrad	Overview of "Data Mules" on a Mars Cyler using 2D Orbital Mechanics
10:30 AM	Undergrad	Machine Learning Techniques for Bluff Body Aerodynamics
11:00 AM	Undergrad	Thermal Analysis of Boron/PVDF and Boron Carbide/PVDF Mixtures
11:30 AM	Undergrad	Structural and Thermal Analysis of Ram Accelerator Projectile Configurations
12:00 PM	Lunch w/ Retired NASA Astronaut Daniel Bursch	
1:30 PM	Undergrad	Optical Fabrication Report Technique for Flat-Faced Propellant Injectors
2:00 PM	Undergrad	Processing of High-Speed Video Data for Rotating Detonation Engines
2:30 PM	Undergrad	Modeling of Gas-Dynamic Partial Pressure Mixing for Ram Accelerator Applications
2:55 AM	Break	
3:10 PM	Undergrad	Virtual Aperture Multispectral Imaging for Atmospheric Reentry Studies Using High-Altitude Reflective Arrays
3:40 PM	Undergrad	Modern Physics and the Black Hole Information Paradox
4:10 PM	Master	Modification of Supersonic to Hypersonic Wind Tunnel by Designing Heat Exchanger for High Enthalpy Reservoir Conditions
4:40 PM	Workshops Available	
5:30 PM	Dinner w/ Executive Director Daniel Dumbacher	



Workshop/Activity Schedule
Locations: Conference Center (CC)

PDT*	Saturday 2-Apr	
10:00 AM	CC Ballroom	The Journey of an Engineer with Jarrett Indalecio
11:00 AM	CC 105	Air Force Aviation and Technical Careers Panel with the U.S. Air Force
	CC 110	Leadership Development with Jess Évora
12:00 PM	CC Ballroom	Lunch w/ Retired NASA Astronaut Daniel Bursch
1:30 PM	CC 105	Air Force Aviation and Technical Careers Panel with the U.S. Air Force
	CC 110	Leadership Development with Jess Évora
2:30 PM	CC 105	Interviewing Tips with Alumni (Pre-Registration Required)
	CC 110	Resume Building with Elizabeth Atilano (High School Component)
3:30 PM	Break	
4:00 PM	CC 105	Interviewing Tips with Alumni (Pre-Registration Required)
	CC 110	Resume Building with Elizabeth Atilano (College)
5:00 PM	CC Ballroom	Break w/ Kahoot Competition
5:30 PM	CC Ballroom	Dinner w/ Executive Director Daniel Dumbacher

High School Component Activity Schedule

Group A

Locations: Conference Center (CC) &

Kolligian Library 202

PDT*	Saturday 2-Apr	
10:00 AM	CC Ballroom	The Journey of an Engineer with Jarrett Indalecio
11:00 AM	CC 105	Air Force Aviation and Technical Careers Panel with the U.S. Air Force
12:00 PM	CC Ballroom	Lunch w/ Retired NASA Astronaut Daniel Bursch
1:30 PM	CC 110	Leadership Development with Jess Évora
2:30 PM	CC 110	Resume Building with Elizabeth Atilano
3:30 PM	KL 202	Public Speaking & Lunar Settlement Competition Prep
5:30 PM	CC Ballroom	Dinner w/ Executive Director Daniel Dumbacher

High School Component Activity Schedule

Group B

Locations: Conference Center (CC) &

Kolligian Library (KL) 208

PDT*	Saturday 2-Apr	
10:00 AM	CC Ballroom	The Journey of an Engineer with Jarrett Indalecio
11:00 AM	CC 110	Leadership Development with Jess Évora
12:00 PM	CC Ballroom	Lunch w/ Retired Astronaut Daniel Bursch
1:30 PM	CC 105	Air Force Aviation and Technical Careers Panel with the U.S. Air Force
2:30 PM	CC 110	Resume Building with Elizabeth Atilano
3:30 PM	KL 208	Public Speaking & Lunar Settlement Competition Prep
5:30 PM	CC Ballroom	Dinner w/ Executive Director Daniel Dumbacher

High School Component Activity Schedule

Group A

Locations: Conference Center (CC) &

Kolligian Library 202

PDT*	Sunday 3-Apr	
8:45 AM	KL 202	Lunar Settlement Competition Final Prep
9:45 AM	CC 105	Company Exhibit
11:00 AM	KL 202	Lunar Settlement Competition
1:00 PM	CC Ballroom	Lunch w/ Philip Grecki & Awards Ceremony
3:00 PM	University Plaza	Paper Plane Competition

High School Component Activity Schedule

Group B

Locations: Conference Center (CC) &

Kolligian Library (KL) 208

PDT*	Sunday 3-Apr	
8:45 AM	KL 208	Lunar Settlement Competition Final Prep
9:45 AM	CC 105	Company Exhibit
11:00 AM	KL 208	Lunar Settlement Competition
1:00 PM	CC Ballroom	Lunch w/ Philip Grecki & Awards Ceremony
3:00 PM	CC 110	Paper Plane Competition