



NEXT-GENERATION SUBORBITAL RESEARCHERS CONFERENCE 2013

JUNE 3 - 5, 2013
OMNI INTERLOCKEN RESORT
BROOMFIELD, COLORADO



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B	Abstract Title	Session
Barber, J.	Recovery System Considerations in Sub-Orbital Vehicle Design and Experimental Payloads	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Barnett, M.B.	Test of Satellite Communications Systems on-board Suborbital Platforms to provide lowcost data communications for Research Payloads, Payload Operators, and Space Vehicle Operators	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Beaton, K.	Symptom-Free in Zero-G? A Portable Technology for Rapid, Multi-System Assessment and the Potential for Predicting Inflight Performance	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Belem, M.	CROWDFUND - A Solution for Space Experiments in Schools?	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Boodee, R.	The Atsa 1 Camera: Current Status	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Bradley, E.T.	Microgravity Testing and Deployment of a Pico-Scale Satellite Dust Detector	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Brady, T.	A Next Generation Terrestrial Test Rocket	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Brisset, J.	The SPACE Experiment: Using the REXUS Suborbital Rocket to Study Planet Formation Processes	Astrophysics and Solar Physics Tuesday June 4, 4:30-5:30 pm, Room B
Budd, G.D.	Towed-Glider Air Launch Concept	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
C		
Carter, J.	Space Technology Demonstrations Using Low Cost, Short-Schedule Airborne and Range Facilities at the Dryden Flight Research Center	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Casey, S.	Space Entrepreneurship in Silicon Valley	Markets, Policy, Training & Other (I) Tuesday June 4, 4:00-6:00pm, Room D
Cheng, A.	Balloon Rapid Response for ISON (BRRISON)	Planetary Science Wednesday June 5, 10:30 am - 12:15 pm, Room B
Chirayath, V.	HiMARC Fluid Lensing: Using Fluid Perturbations as Optical Lens Elements	Payload Accommodations, Suborbital Technologies, and Technology Testing (II) Wednesday June 5, 8:30 - 10:15 am, Room

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Christensen, C.	Characterization of Suborbital Research Participants	Markets, Policy, Training & Other (I) Tuesday June 4, 4:00-6:00 pm, Room D
Collicott, S.	Updates on the Purdue Sub-Orbital Student Experiment Program for 2013	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Cox, D.	Remote Laboratory RLab Platform for Microgravity Experiments	Education and Public Outreach Monday June 3, 1:30-2:30 pm, Room D/B
Crosby, K.	Zero-gravity Fuel Gauging Using Modal Analysis	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Cuttino, C.M.	Medical Research in Microgravity: Parabolic Flight as a Pathfinder for Suborbital Experiments	Life Sciences Monday June 3, 4:00-6:00 pm, Room A
D		
DeForest, C.	The Southwest Solar Instrument Pointing Platform (SSIPPP)	Astrophysics and Solar Physics Tuesday June 4, 4:30-5:30 pm, Room B
Dewey, R.	Fly Cheap - Fly Often - A Payload Providers Guide on to How to Successfully Get Technologies Tested in a Relevant Near-Space Environment	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Dove, A.	ACE: a suborbital experiment in low-velocity aggregate collisions	Planetary Science Wednesday June 5, 10:30 am-12:15 pm, Room B
Driggers, G.	Sub-Orbital Rendezvous - Enabling Affordable Space Transportation	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
E		
Ennico, K.	Portable Southwest Research Ultraviolet Imaging System (SWUIS2.0) for astronomy and aeronautical observations from suborbital space vehicles	Astrophysics and Solar Physics Tuesday June 4, 4:30-5:30 pm, Room B
G		
Garver, L.	Deputy Administrator, NASA	Opening Session Monday June 3, 8:30-10:30 am, Room D/B/A
Green, S.	Payload Isolation for Microgravity Research on sRLVs	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Guined, J.	Bridging the Gap: The Role of the Fitness Professional in the Commercial Spaceflight Industry	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Guined, J.	Fit for Flight: Fitness & Medical Screening in Commercial Spaceflight Tourism	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
H		
Hale, W.	Former NASA Space Shuttle Program Manager	Lunch Keynote Tuesday June 4, 12:45-1:30 pm, Room D/B
Harness, A.	Suborbital Demonstrations of Starshades	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Harris, B.	Center for the Advancement of Science In Space	Markets, Policy, Training & Other (II) Wednesday June 5, 8:30-10:00 am, Room A
Henwood, B.	Creating the Model for Commercial Spaceflight Training Certification	Markets, Policy, Training, Other (II) Wednesday June 5, 8:30-10:00 am, Room A
Hoover, B.	Microbang: An Experiment to Observe the Gentle Collisions of Dust Particles in Microgravity	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court

Howard, M.	A Training Roadmap for Commercial Suborbital Spaceflight Participants	Markets, Policy, Training, Other (II) Wednesday June 5, 8:30-10:00 am, Room A
Hurlbert, K.	Progress on the Multi-Phase Flow Experiment for Suborbital Testing	Payload Accommodations, Suborbital Technologies, and Technology Testing (II) Wednesday June 5, 8:30-10:15 am, Room B
K		
Kang, J.	True Commercial Method to Test Combined Environments on Spacecraft Launch Systems and Payloads to Reduce Mass, Cost and Mission Risk	Payload Accommodations, Suborbital Technologies, and Technology Testing (II) Wednesday June 5, 8:30-10:15 am, Room B
Kaplan J.	Astronaut Performance during Gravitoinertial Force Transitions: a SIRIUS Approach to Suborbital Flight Training	Life Science Monday June 3, 4:00-6:00 pm, Room A
Koehler, C.	RockOn and RockSat: Training the Next Generation of Suborbital Researchers	Education and Public Outreach Monday June 3, 1:30-2:30 pm, Room D/B
Komatireddy, R.	Lessons Learned from Parabolic Flight Testing A Novel Wireless Medical Biomonitoring System	Life Sciences Monday June 3, 4:00-6:00 pm, Room A
Kremic, T.	Planetary Science From A Stratospheric Balloon	Planetary Science Wednesday June 5, 10:30 am - 12:15 pm, Room B
Kubendran, L.K.	NASA Flight Opportunities Program Update	Markets, Policy, Training, Other (I) Tuesday June 4, 4:00-6:00 pm, Room D

L		
Larsen, M.	The PoSSUM Mesospheric Winds Experiment	Poster Sessions Sunday June 2, 7:30-9:00 pm, Lobby Court
Lehnhardt, K.	Is Radiation Exposure an Important Issue in Suborbital Human Spaceflight?	Life Sciences Monday June 3, 4:00-6:00 pm, Room A
Lehnhardt, K.	The Role of Footwear on Running Gait in a Microgravity Environment	Microgravity Sciences Tuesday June 4, 5:00-5:45 pm, Room A
Lin, Y.	A Micro-Balloon for University-based Atmospheric Observatory in Near Space	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Loesch, A.	Upper Stratospheric Low-g Parabolic Flight	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Lopez-Alegria, M.	"Permission"	Opening Session Monday June 3, 8:30-10:30 am, Room D/B/A

M		
Maclise, D.	What's in the Flight Opportunities Payloads Pipeline?	Markets, Policy, Training, Other (II) Wednesday June 5, 8:30-10:00 am, Room A
Mandt, K.	Why Do We Know More About The Isotopic Composition Of Titan's Thermosphere Than We Do About The Earth's?	Atmospheric, Ionospheric, and Aeronomical Science Wednesday June 5, 10:30-11:45 am, Room A
Martinez, G.	Test of a Satellite Inertia Identification Method Using Suborbital Flight	Microgravity Sciences Tuesday June 4, 5:00-5:45 pm, Room A
McAlister, P.	Non-Traditional Aspects of NASAs Commercial Crew Program	Markets, Policy, Training, Other (II) Wednesday June 5, 8:30-10:00 am, Room A
McGee, B.	The Suborbital Space Radiation Environment: Challenges and Opportunities	Markets, Policy Training, Other (I) Tuesday June 4, 4:00-6:00 pm, Room D
Miller, A.K.	Reduced-Order Nonlinear Structural Models	Payload Accommodations, Suborbital Technologies, and Technology Testing (II) Wednesday June 5, 8:30-10:15 am, Room B

N		
Nelson, A.	Chief Operating Officer, XCOR Aerospace	Opening Session Monday June 3, 8:30-10:30 am, Room D/B/A
Neubauer, K.	"Operational Safety in Commercial Space Travel: Using the Experience of Aviation to Take the First Steps"	Tuesday June 4, 4:00-4:30 pm, Room B
Nield, G.	Associate Administrator, FAA Commercial Space Transportation	Opening Session Monday June 3, 8:30-10:30 am, Room D/B/A
O		
Ochiai, T.	Life science experiment plan using Suborbital Flights	Life Sciences Monday June 3, 4:00-6:00 pm, Room A
P		
Parazynski, S.	Suborbital Science Strategy: designing, planning, training and conducting your successful suborbital science!	Keynote Talk Monday June 3, 10:30-11:15 am, Room D/B/A
Partridge, C.	Experiment Prototype for Peristaltic Flow in Microgravity	Microgravity Sciences Tuesday, June 4 5:00-5:45 pm, Room A
Peters, M.	Director of Education and Research Programs, Zero Gravity Corporation	Tuesday June 4, 8:30-9:30 am, Room A
Piplica, A.	Air-Launched Suborbital Research Platform for Small Payloads	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Ponomarenko, S.	Hyperspectral Lidar System for Suborbital Space Research	Planetary Science Wednesday June 5, 10:30 am -12:15 pm, Room B
Poynter, J.	Science Opportunities for Inspiration Mars	Tuesday June 4, 1:30-2:00 pm, Room D
Putman, J.	Alterations in the Event Related Potential in Micro-gravity: Implications for Human Performance Countermeasure Approaches Utilizing Neurofeedback	Life Sciences Monday June 4, 4:00-6:00 pm, Room A
R		
Reimuller, J.	The Uppik Observatory: Modular Suborbital Aeronomy and Terrestrial Observations	Atmospheric, Ionospheric, and Aeronomical Science Wednesday June 5, 10:30-11:45 am, Room A
Reimuller, J.	The PoSSUM Campaign: Polar Suborbital Science in the Upper Mesosphere	Atmospheric, Ionospheric, and Aeronomical Science Wednesday June 5, 10:30-11:45 am, Room A
Reuther, J.	Deputy Associate Administrator for Programs, NASA Space Technology Mission Directorate	Lunch Keynote Wednesday June 5, 12:45-1:30 pm, Room D/B
Rhodes, C.	Atsa Suborbital Telescope Control Box	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Roberts, M.	Microbial Interactions in the Space Environment	Life Sciences Monday June 3, 4:00-6:00 pm, Room A
Russell, B.	Advancing and Promoting Suborbital STEM Education - What Works and What Doesn't: Lessons from the Field	Education and Public Outreach Monday June 3, 1:30-2:30 pm, Room D/B
S		
Schmidt, M.	Optimizing Astronaut DNA Stability before Entering Space Radiation Environments? Omics-Based Advances in Personalized Assessment & Countermeasures	Life Sciences Monday June 3, 4:00-6:00 pm, Room A
Seedhouse, E.	An Alternative Approach to Suborbital Astronaut Training	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court

Seedhouse, E.	How to Hire A4H Astronauts for Suborbital Science Missions	Markets, Policy, Training, Other (I) Tuesday June 4, 4:00-6:00 pm, Room D
Shiro, B.	Astronauts4Hire: Empowering Suborbital Research	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Sirangelo, M.	Operation Space Apps	Tuesday June 4, 11:30 am - 12:00 pm, Room A
Smith, H.T.	AeSOP: Initial steps toward shedding light on the Ignorosphere	Atmospheric, Ionospheric, and Aeronomical Science Wednesday June 5, 10:30-11:45 am, Room A
Smith, S.	Open Source Capstone Project to Cultivate Student STEM Innovators	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Sollitt, L.	The Atsa 1 Camera: Design Concept	Planetary Science Wednesday June 5, 10:30 am -12:15 pm, Room B
Starkey, R.	Suborbital Flight Preparation of the Pistonless Pump Technology Demonstrator	Payload Accommodations, Suborbital Technologies, and Technology Testing (II) Wednesday June 5, 8:30-10:15 am, Room B
Stern, S.A.	SARG: The Commercial Spaceflight Federation's Researcher and Educator Committee	SARG Panel Monday June 3, 1:30-2:30 pm, Room A
Stern, S.A.	Planetary Astronomy From Next-Gen Suborbital Platforms	Planetary Science Wednesday June 5, 10:30 am - 12:15 pm, Room B
Stern, S.A.	Public Talk: The Promise of Commercial Spaceflight	Public Night Monday, June 3, 7:30 - 9:00 pm
Sternovsky, Z.	Detection of nanometer sized dust particles on suborbital platforms	Atmospheric, Ionospheric, and Aeronomical Science Wednesday June 5, 10:30-11:45 am, Room A
Suffredini, M.	ISS as a Cost Effective Follow-On to Sub-Orbital Research	Tuesday June 4, 11:00 am -12:00 pm, Room A
T		
Tsang, C.C.C.	Commercial Jet Training in Preparation for Suborbital Spaceflights: Public Service Information	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
V		
Vilas, F.	Progress Toward the Operational ATSA Suborbital Observatory	Astrophysics and Solar Physics Tuesday June 4, 4:30-5:30 pm, Room B
W		
Wallace, E.	Space Tourism is the New Higher Education	Education and Public Outreach Monday June 3, 1:30-2:30 pm, Room D/B
Witt, S.	CEO, Mojave Air & Space Port	Opening Session Monday June 3, 8:30-10:30 am, Room D/B/A
Wright, E.	Citizen Science and Citizen Space Exploration	Markets, Policy, Training, Other (I) Tuesday June 4, 4:00-6:00 pm, Room D
Wright, E.	The Lynx Cub Payload Carrier for Small Suborbital Experiments	Payload Accommodations, Suborbital Technologies, and Technology Testing (I) Tuesday June 4, 1:30-3:45 pm, Room B
Wu, Q.	Balloon Borne Instrument for Daytime Thermospheric Wind Observation	Poster Session Sunday June 2, 7:30-9:00 pm, Lobby Court
Y		
Young, E.	Beyond HST: High Acuity Imaging from the Earth's Stratosphere	Planetary Science Wednesday June 5, 10:30 am - 12:15 pm

Young, D.	Beyond 100 ft High Heels: Hanging from the Earth's Stratosphere	Wednesday June 5, 10:00 am - 12:15 pm, Room B
Z		
Zagrai, A.	Structural Condition Assessment during High Altitude Stratospheric Balloon Flight	Payload Accommodations, Suborbital Technologies, and Technology Testing (II) Wednesday June 5, 8:30 - 10:15 am, Room B