Monday, May 11, 2020

Time (PDT)	Event
9:00-09:05	**Opening Remarks: A. Babuscia**
9:05-10:00	**Keynote Speaker: F. Tan, NASA Headquarters** *Moderator: P. Clark*
10:00-10:15	Break
10:15-12:00	**Session A: Artemis-1 Missions and Upcoming Missions** *Session Chair: M. Saing*
	A.1 2020 Update for the Lunar Ice Cube Mission (*P. Clark*)
	A.2 Near Earth Asteroid Scout Mission – Status Update a Few Weeks Before Delivery! (*A. Marinan*)
	A.3 Near Earth Asteroid Scout (NEA Scout) Science Concept of Operations Utilizing Onboard Data Analysis (*J. Lightholder*)
	A.4 Lunar Flashlight Mission Overview (*D. Grebow*)
	A.5 LunaH-Map Mission Technologies and Developments (*I. Lazbin*)
	A.6 VIPER – Volatiles Investigating Polar Exploration Rover: Mission Overview (*R. Vaughan*)
	A.7 Mars Helicopter Technology Demonstration (*C. Duncan*)
12:00-12:30	**Session A Q&A Panel: J. Fishman**
12:30-13:30	Lunch

Monday, May 11, 2020 *(continued)*

Time (PDT)	Event
13:30-15:15	**Session B: Telecommunications, Radio Science and Ground Support** *Session Chair: C. Lau*
	B.1 Deep Space Station 17: A University-Operated Affiliated Node on the NASA Deep Space Network Providing Telemetry, Tracking and Command Services for Interplanetary SmallSat Missions (*B. Malphrus*)
	B.2 Iris Deep-Space Transponder for Artemis Payloads (*M. Shihabi*)
	B.3 An Inter Planetary Network Enabled by SmallSats and Optical Communications (*J. Velazco*)
	B.4 Comparing Radio Occultation Results from MarCO with Mars Reconnaissance Orbiter and MAVEN: Achievable Radio Science with a CubeSat (*D. Buccino*)
	B.5 Validating the Optimization of Mission Operations for the Lunar IceCube Mission Using Delay-Tolerant Networking (*N. Richard*)
	B.6 Loop antenna on a Tree for Satellite Reception (*T. Choi*)
	B.7 Cubesat Constellation Architecture to Support Space-based Property Claims (*J. Irwin*)
15:15-15:45	**Session B Q&A Panel: A. Babuscia**
15:45-16:00	Break

Monday, May 11, 2020 *(continued)*

Time (PDT)	Event
16:00-17:30	**Session C: Propulsion and Launch Capabilities** *Session Chair: R. Nugent*
	C.1 Rocket Lab Electron and Photon-Enabled Beyond LEO Missions (*R. French*)
	C.3 Lessons Learned From the First Build of Phase Four's Maxwell Engine (*U. Siddiqui*)
	C.4 LauncherOne (*J. Fuller*)
	C.5 An Accessible CubeSat Hall Effect Thruster for Interplanetary Missions (*C. Warn*)
	C.6 Interorbital Systems: Launch Services to LEO, Luna, and Beyond (*R. Milliron*)
	C.7 FEEP Electric Propulsion Systems for Small Satellites (*D. Krejci*)
17:30-18:00	**Session C Q&A Panel: Z. Benecken**
18:00-18:05	Day 1: Closing Remarks: A. Babuscia

Tuesday, May 12, 2020

Time (PDT)	Event
9:00-09:05	**Opening Remarks: A. Babuscia**
9:05-10:00	**Keynote Speaker: V. Stamenkovic, Jet Propulsion Laboratory** *Moderator: A. Babuscia*
10:00-10:15	Break
10:15-12:00	**Session D: New Mission Ideas and Innovative Concepts** *Session Chair: A. Babuscia*
	D.1 A 200 Year CubeSat That Sings With Trees (*S. Matousek*)
	D.2 The Tree of Life: A 200-Year CubeSat (*J. Christensen*)
	D.3 SmallSat Reactive Flyby to Oort Cloud Comets and Interstellar Objects (*B. Donitz*)
	D.4 Aerial Reconnaissance of Canyons and Craters on Mars Using Sailplanes (*A. Bouskela*)
	D.5 Athena: The First-Ever Encounter of a Main Belt Asteroid with a SmallSat (*J. O'Rourke*)
	D.6 Lunar Mining Base Construction and Operation Using Teams of Small Robots (*J. Thangavelautham*)
	D.7 CubeSat-Sized Mars Solar Balloons for Aerial Exploration (*T. Schuler*)
12:00-12:30	**Session D Q&A Panel: M. Saing**
12:30-13:30	Lunch

Tuesday, May 12, 2020 *(continued)*

Time (PDT)	Event
13:30-15:15	**Session E: Innovative Technologies and Instrumentation** *Session Chair: Z. Benecken*
	E.1 Dynamic Power, SWaP reduction and Transceiver Sensitivity Enhancement in Interplanetary Small Satellites (*M. Hopkins*)
	E.2 LUNARAD – A Study of Radiation Shielding Technologies in Cis-lunar Space (*P. Faure*)
	E.3 Star Tracking for Small Satellites: Efficient Star Identification Using a Neural Network (*D. Rijlaarsdam*)
	E.4 Radiation Hardness in Magnetoresistive Random Access Memories (*D. Katti*)
	E.5 End-to-End Strategies for Exploring Lunar/Martian Caves (*H. Kalita*)
	E.6 Solar 3D Printing of Structures for Off-World Bases (*S. Anderson*)
	E.7 Use of Lasers and FemtoSats to Explore the Lunar Permanently Shadowed Regions (*A. Diaz*)
15:15-15:45	**Session E Q&A Panel: C. Lau**
15:45-16:00	Coffee Break

Tuesday, May 12, 2020 *(continued)*

Time (PDT)	Event
16:00-17:45	**Session F: Technologies and Mission Concepts for Extreme Environments** *Session Chair: P. Clark*
	F.1 Small Payloads for Lunar Exploration: Requirements and Challenges (*P. Clark*)
	F.2 100-grams High Spectral Resolution Spectrometer for SmallSat Planetary Missions (*S. Hosseini*)
	F.3 Compact QIT-Mass Spectrometers for Space Applications (*F. Maiwald*)
	F.4 Thermal Toolbox Elements for Lunar/Planetary Extreme Environments (*D. Bugby*)
	F.5 Cislunar Autonomous Positioning System Technology Operations and Navigation Experiment (CAPSTONE) (*D. Taylor*)
	F.6 Lunar Far Side Tracking and Communication Relay System (*R. Ravikumar*)
	F.7 Smallsats Beyond Saturn Without Radioisotopes: A Preliminary Assessment (*R. Staehle*)
17:45-18:15	**Session F Q&A Panel: J. Fishman**
18:15-18:20	Concluding Remarks: A. Babuscia