

## Monday, July 8

Start Time	Title	Name	Affiliation	
<b>Opening Session - Conveners: Ethiraj Venkatapathy, Miguel Perez Ayucar, and Bernie Bienstock</b>				
9:00 AM	LOC Welcome	Colin Wilson; Steve Lingard	University of Oxford; Vorticity	
9:15 AM	IOC Welcome	Bernie Bienstock	Jet Propulsion Laboratory, California Institute of Technology	
9:30 AM	AI Seiff Award - 2018 and 2019	Miguel Perez Ayucar	Aurora Technology B.V. for ESA	
9:40 AM	2018 AI Seiff Award Winner Lecture - <i>in situ</i> , forever	Sushil Atreya	University of Michigan	Keynote
10:10 AM	Coffee Break			
10:35 AM	Introduction to the Keynote Address and Panel Discussion	Ethiraj Venkatapathy	NASA Ames Research Center	
10:38 AM	European Space Agency Program Discussion	Luigi Colangeli	ESA	Keynote
11:12 AM	China's Deep-Space Exploration and Planetary Research in the Past, Current and in the Near Future	Chi Wang	National Space Science Center, Chinese Academy of Sciences	Keynote
11:46 AM	Updates on NASA's Planetary Science Programs	Carolyn Mercer	NASA Headquarters	Keynote
12:20 PM	Brief Comments from UK Space Agency	Chris Lee	UK Space Agency	Keynote
12:25 PM	Moderated Panel	Ethiraj Venkatapathy; Robert Buchwald	NASA Ames Research Center; Airbus Defence and Space	Invited
1:10 PM	Lunch			
<b>Science Instrumentation, Experiments, and In-Situ Measurements - Conveners: Manuel Dominguez, Rafael Lugo, Ryan Timoney, and Gregory Villar</b>				
2:35 PM	Poster Introductions			
2:47 PM	The PanCam instrument for the Rosalind Franklin (ExoMars 2020) rover	Andrew Coates	UCL Mullard Space Science Laboratory	
2:59 PM	TheJet Propulsion Laboratory, California Institute of Technology Venus Aerosol Mass Spectrometer Concept	Kevin Baines	Jet Propulsion Laboratory, California Institute of Technology	
3:11 PM	Dragonfly: In Situ Exploration of Titan's Organic Chemistry and Habitability	Elizabeth Turtle	Johns Hopkins Applied Physics Laboratory	Invited
3:33 PM	Coffee Break			
3:58 PM	The Entry Descent and Landing Instrumentation Suite for the Mars 2020 Mission	Todd White	NASA Ames Research Center	
4:10 PM	Piezo-Electric Inlet System For Atmospheric Descent Probe	Jurij Simcic	Jet Propulsion Laboratory, California Institute of Technology	
4:22 PM	Exploring The Performance Of A Miniature 3D Wind Sensor Under Extreme Martian Winds Up To The Dust Devil Scale	Manuel Dominguez-Pumar	Technical University of Catalonia	
4:34 PM	Assessing The Habitability Of Icy Ocean Worlds	Samuel Kounaves	Tufts University	
4:46 PM	i-Drill: An Instrumented Drill for Lunar Polar Volatiles	Ryan Timoney	University of Glasgow	Student
4:58 PM	Laser Nephelometer For In-Situ Particle Detection In Planetary Atmospheres	Vandana Jha	NASA Ames Research Center	
5:10 PM	ESA plans for Planetary Defense and Small Satellites	Frederic Teston	Head of Systems Department, D/TEC	Keynote
5:40 PM	Break			
6:30 PM	Industry Reception at University of Oxford Natural History Museum	Sponsored by Analytical Mechanics Associates		
9:30 PM				

Tuesday, July 9

Start Time	Title	Name	Affiliation	
<b>Mars Exploration - Conveners: Ashley Korzun, David Mimoun, Michelle Munk, and Brooke Harper</b>				
8:30 AM	Poster Introductions			
8:45 AM	InSight EDL Overview and As-Flown Performance	Rob Grover	Jet Propulsion Laboratory, California Institute of Technology	Invited
8:57 AM	Mars InSight Trajectory and Atmosphere Reconstruction	Chris Karlgaard	AMA, Inc. at NASA Langley Research Center	Invited
9:09 AM	Insight Approach Operations During Dust-Storm Season	Eugene Bonfiglio	Jet Propulsion Laboratory, California Institute of Technology	Invited
9:21 AM	Performance of the InSight Spacecraft During Entry, Descent, and Landing at Mars	Mark Johnson	Lockheed Martin Space	Invited
9:33 AM	EDL Comm featuring MarCO CubeSat Performance	Sanford Krasner	Jet Propulsion Laboratory, California Institute of Technology	Invited
9:45 AM	Simulation of InSight Plume Induced Surface Cratering and Validation Through Imagery Based 3D Topology Reconstruction	Peter Liever	CFD Research Corp.	Invited
9:57 AM	Comparison of the Reconstructed Entry, Descent, and Landing Phase of the InSight and Phoenix Mars Landers	Aline Zimmer	Jet Propulsion Laboratory, California Institute of Technology	Invited
10:09 AM	Coffee Break			
10:30 AM	Reconstruction Of Schiaparelli And Comars Flight Data	Aaron Brandis	AMA Inc at NASA Ames Research Center	
10:42 AM	Mars 2020 Entry, Descent, and Landing Update	Aaron Stehura	Jet Propulsion Laboratory, California Institute of Technology	
10:54 AM	Mars 2020 EDL System Performance at Jezero Crater	David Way	NASA Langley Research Center	
11:06 AM	The Mars 2020 Lander Vision System: Architecture And V&V Results	James Montgomery	Jet Propulsion Laboratory, California Institute of Technology/Caltech	
11:18 AM	Exomars 2020 Entry, Descent And Landing System	Steve Lingard	Vorticity Ltd	
11:30 AM	Systems Analysis Of An Inflatable Entry Concept For Human Mars Mission	Jamshid Samareh	NASA Langley Research Center	
11:42 AM	Application of Direct Force Control to Human-Scale Mars Entry, Descent, and Landing.	Rafael Lugo	NASA Langley Research Center	
11:54 AM	Lunch and Student Profession Lunch Event			
1:30 PM	<b>ESA Talk including discussion on ESA's contribution to Mars Sample Return</b>	<b>David Parker</b>	<b>European Space Agency</b>	<b>Keynote</b>
2:00 PM	Mars Sample Return - A reference campaign architecture for joint ESA-NASA studies and early mission concepts	Sanjay Vijendran	European Space Agency	
2:12 PM	Mars Sample Return Sample Retrieval Lander Concept Overview	Martin Greco	Jet Propulsion Laboratory, California Institute of Technology	
2:24 PM	Mars Sample Return Edl Flight Performance Challenges And Mitigation Strategies	Mark Ivanov	Jet Propulsion Laboratory, California Institute of Technology	
<b>Sample Return to Earth - Conveners: Scott Perino, Matthias Grott, Marcus Lobbia, Joern Helbert, and Sahadeo Ramjatan</b>				
2:36 PM	Poster Introductions			
2:48 PM	Robotic Mars Sample Return Earth Entry Vehicle Concept Development	Marcus Lobbia	Jet Propulsion Laboratory, California Institute of Technology	
3:00 PM	HEEET Material Modeling and Earth Entry Vehicle Landing Analyses for Potential Mars Sample Return	Aaron Siddens	Jet Propulsion Laboratory, California Institute of Technology	
3:12 PM	Break the Chain and Containment Assurance Concepts for Mars Sample Return and Beyond	Morgan Hendry	Jet Propulsion Laboratory, California Institute of Technology	
3:24 PM	Mars Sample Return - Earth Return Orbiter: Design and Validation of a Guidance, Navigation and Control System for Martian Rendezvous	Marc Chapuy	Airbus Defence and Space	
3:36 PM	The DLR Sample Analysis Laboratory	Joern Helbert	DLR	
3:48 PM	Successes With Exo-Brake Development and Targeting for Future Sample Return Capability: TES-6,7,8 Flight Ex-eriments	Marcus Murbach	NASA Ames Research Center	
4:00 PM	Coffee Break			
<b>Innovative Concepts for Exploration - Conveners: Robert Dillman, Dmitriy Shutin, Gilles Bailet, and Siddharth Krishnamoorthy</b>				
4:24 PM	Poster Introductions			
4:36 PM	Deployable Aeroshell Technology For Small-Class Planetary Exploration Mission	Kazuhiko Yamada	JAXA	Invited
4:48 PM	Dragonfly: In situ Terrain Relative Navigation for Titan Surface Exploration	Kenneth Hibbard	Johns Hopkins Applied Physics Laboratory	
5:00 PM	BioSats: Distributed Sensing of Venus' Atmosphere through Microprobes	Katharina Hildebrandt	European Space Agency	
5:12 PM	Swarm Navigation and Exploration for Planetary Surface Missions: Experimental Results	Emanuel Staudinger	German Aerospace Center (DLR)	
5:24 PM	Triple: Autonomous Subglacial Lake Exploration As A Stepping Stone Towards Icy Worlds Ocean Exploration	Christoph Waldmann	University of Bremen/MARUM	
5:40 PM	Poster Session			
7:10 PM				

## Wednesday, July 10

Start Time	Title	Name	Affiliation	Status
<b>Solar System Exploration I – Mercury, Venus, Giant Planets, and Titan - Conveners: Thibault Cavalie, Jacob Izraelevitz, Olivier Mousis, and David Atkinson</b>				
8:30 AM	Poster Introductions			
8:42 AM	The Decade of Venus: Revitalizing Exploration of our Sister Planet	James Cutts	Jet Propulsion Laboratory, California Institute of Technology	
8:54 AM	Mercury Vapor Rankine Power Cycle For A Venus Surface Lander	Christopher Greer	The Pennsylvania State University	Student
9:06 AM	Long-Duration Venus Probes and Landers	Tibor Kremic	NASA Glenn Research Center	
9:18 AM	The Cupid's Arrow Mission Concept: Hypervelocity Sampling In The Upper Atmosphere Of Venus	Jason Rabinovitch	Jet Propulsion Laboratory, California Institute of Technology	
9:30 AM	Balloon-Borne Infrasond As A Remote Sensing Tool For Venus - Progress In 2018	James Cutts	Jet Propulsion Laboratory, California Institute of Technology	
9:42 AM	Altitude-Controlled Balloon Concepts for Venus and Titan: Energy, Mass, and Stability Tradeoffs	Jacob Izraelevitz	NASA Jet Propulsion Laboratory, California Institute of Technology	
9:54 AM	Coffee Break			
10:18 AM	Advances In Mechanical Compression Altitude Control Balloon Technology For Venus And Titan	Maxim de Jong	Thin Red Line Aerospace	
10:30 AM	Sampling Titan'S Surface With Dragonfly	Ralph Lorenz	Johns Hopkins Applied Physics Laboratory	
10:42 AM	Study On ESA Contribution To NASA-Led Ice Giants Mission	Gonzalo Saavedra Criado	European Space Agency	
10:54 AM	The deep composition of Uranus and Neptune from mass spectrometry and thermochemical modeling	Thibault Cavalie	Laboratoire d'Astrophysique de Bordeaux	
11:06 AM	Key Atmospheric Signatures For Deciphering The Formation Conditions Of Uranus And Neptune In The Protosolar Nebula	Thibault Cavalie	Laboratoire d'Astrophysique de Bordeaux	
11:18 AM	Ice Giant Aerocapture Using Low-L/D Aeroshells: Uncertainty Quantification and Risk Assessment	Athul Pradeepkumar Girija	Purdue University	Student
11:30 AM	Atmospheric Link Science And Communications With Planetary Entry Probes Via Direct-To-Earth And Relay Radio Link Methods.	Sami Asmar	Jet Propulsion Laboratory, California Institute of Technology	
11:42 AM	The Challenges of Landing on Uncertain Terrain	Alejandro San Martin	Jet Propulsion Laboratory, California Institute of Technology	Invited
12:12 PM	Lunch			
1:30 PM	Tour			
5:00 PM	Break			
6:00 PM	IPPW Banquet – Keble College			
9:00 PM				

## Thursday, July 11

Start Time	Title	Name	Affiliation	Status
<b>Entry, Descent, and Landing Technologies - Conveners: Tom West, Rodrigo Haya Ramos, Milad Mahzari, Karl Edquist, and Eric Stern</b>				
8:30 AM	Poster Introductions			
8:45 AM	Study Of Neuromorphic Application Using Spiking Neural Network For Terrain Relative Navigation	Kazuki Kariya	The Graduate University for Advanced Studies	Student
8:57 AM	Crater-based Optical Navigation Technologies for Lunar Precision Landing in SLIM Project.	Takayuki Ishida	JAXA	
9:09 AM	Map matching during descent for terrain relative navigation on Titan	Larry Matthies	Jet Propulsion Laboratory, California Institute of Technology	
9:21 AM	Scalable Non-Propulsive Dynamic Mass-Shifting Control System For Entry, Descent, And Landing Systems	Kayla Parcerero	San Jose State University	Student
9:33 AM	Onboard Autonomous Trajectory Planner: A guidance routine to assist in enabling pinpoint landing and in-flight trajectory analysis	Justin Green	NASA Langley Research Center	
9:45 AM	Design Of The Pinpoint Landing GNC Of Space Rider.	Rodrigo Haya Ramos	SENER Aerospace	
9:57 AM	Coffee Break			
10:18 PM	An Uncoupled Range Control Approach to Fully Numerical Predictor-Corrector Entry Guidance	Breanna Johnson	NASA Johnson Space Center	
10:30 PM	The SPLICE Project: Safe and Precise Landing Technology Development and Testing	Jay Estes	NASA Johnson Space Center	
10:42 PM	Stability Analysis and Control Design for a Deployable Entry Vehicle with Aerodynamic Control Surfaces	Wendy Okolo	NASA Ames Research Center	
10:54 PM	The Dragonfly Entry And Descent System	Michael Wright	NASA Ames Research Center	
11:06 PM	European Solutions for Heatshields of High Energy Entry Probes	Jean-Marc Bouilly	ArianeGroup SAS	
11:18 PM	Sustaining Phenolic Impregnated Carbon Ablator (PICA) For Future Nasa Missions Including Discovery And New Frontiers	Donald Ellerby	NASA Ames Research Center	
11:30 PM	ADEPT Sounding Rocket One Flight Test Overview	Alan Cassell	NASA Ames Research Center	
11:42 PM	Technology Readiness Assessment For HEEET TPS	Peter Gage	Neerim Corp at NASA Ames Research Center	
11:54 PM	The Challenges of Seam Design in Tiled Thermal Protection Systems	Cole Kazemba	NASA Ames Research Center	
12:06 AM	Lunch and Women Networking Lunch			
1:34 PM	Damage Assessment During a Structural and Thermal Test Campaign of a 1-meter Diameter Heatshield with a 3-D Woven Thermal Protection System for Extreme Environments	Sarah Langston	NASA Langley Research Center	
1:46 PM	LOFTID Aeroshell System Overview	Stephen Hughes	NASA Langley Research Center	
1:58 PM	LOFTID Aeroshell Engineering Development Unit Structural Testing	Greg Swanson	NASA Ames Research Center	
2:10 PM	Retro Propulsion Assisted Landing Technologies (RETALT)	Ali Guelhan	DLR e.V.	
2:22 PM	Designing A Supersonic Retropropulsion Test For The NASA Langley Unitary Plan Wind Tunnel	Karl Edquist	NASA Langley Research Center	
2:34 PM	Experimental Investigation of Magneto-hydrodynamic Energy Generation in Conditions and Configurations Relevant to Planetary Entry	Hisham Ali	Georgia Institute of Technology	Student
2:46 PM	Design And Qualification Testing Of Two European Parachute Mortars For The ESA Exomars 2020 Mission	Rudi Matthijssen	APP-ArianeGroup	
2:58 PM	Coffee Break			
<b>Solar System Exploration II – Airless Planetary Satellites, Asteroids, and Comets - Conveners: Aline Zimmer, Christian Grimm, Michelle Rodio, and Benoit Pigneur</b>				
3:22 PM	Poster Introductions			
3:34 PM	Europa Lander Mission Concept Overview and Update	Steve Sell	Jet Propulsion Laboratory, California Institute of Technology	
3:46 PM	A New Mission Concept for Further Exploration of Enceladus	Stephanie Mottershead	University College London	Student
3:58 PM	Surface Accessibility with Vertical Controlled Landing on 67P / Churyumov-Gerasimenko	Alena Probst	Bundeswehr University Munich	Student
4:10 PM	Juventas - Attempting to Land a CubeSat on Didymos for the Hera Mission	Hannah Goldberg	GomSpace	
4:22 PM	Moon Diver: A Discovery Mission Concept For The Exploration Of A Lunar Pit In Mare Tranquillitatis	Richard Kornfeld	Jet Propulsion Laboratory, California Institute of Technology	
4:34 PM	HERACLES - Human-Enhanced Robotic Architecture and Capability for Lunar Exploration and Science	Robert Buchwald	Airbus	
4:46 PM	Overview of NASA's Human Landing System for Lunar Exploration	Alicia Dwyer Cianciolo	NASA Langley Research Center	
4:58 PM	Technology Investments At The Moon To Enable Entry, Descent, And Landing For Humans At Mars	Alicia Dwyer Cianciolo	NASA Langley Research Center	
5:10 PM	ExoMars 2020 - Rosalind Franklin Rover Integration and Test Status	Dave Pecover	Airbus UK	Keynote
5:40 PM	Poster Session			
7:10 PM	IOC Dinner - Invite only			

## Friday, July 12

Start Time	Title	Name	Affiliation	Status
<b>Modeling, Simulation, Testing, and Validation - Conveners: Clara O'Farrell, Michael Wright, Julia Kowalski, Al Witkowski, and Aaron Stehura</b>				
8:30 AM	Further Aerodynamic Characterization Of The Esa Huygens Probe And Its Appendages : A Combined Testing And Modeling Approach	Simon Couche	Polytech Orleans - University of Orleans	Student
8:42 AM	Dragonfly: Modeling, Testing, and Validation for Atmospheric Flight on Titan	Douglas Adams	Johns Hopkins Applied Physics Laboratory	
8:54 AM	Integrated Modeling And Simulation Of Autonomous Parafoil Descent On Titan	Larry Matthies	Jet Propulsion Laboratory, California Institute of Technology	
9:06 AM	Static And Dynamic Testing Of Blunt Bodies In A Subsonic Magnetic Suspension Wind Tunnel	Mark Schoenenberger	NASA Langley Research Center	
9:18 AM	Recent Developments in Free-Flight CFD	Joseph Brock	AMA Inc. at NASA Ames Research Center	
9:30 AM	Plume-Surface Interaction (PSI): A New (Old) Challenge for Descent and Landing	Michelle Munk	NASA STMD	
9:42 AM	Application of Petascale Computing to Simulation of Powered Descent in Atmospheric Environments	Ashley Korzun	NASA Langley Research Center	
9:54 AM	Coffee Break			
10:18 AM	Reconstructed Disk-Gap-Band Parachute Performance During the Third ASPIRE Supersonic Flight Test	Christopher Tanner	Jet Propulsion Laboratory, California Institute of Technology	
10:30 AM	ADEPT SR-1 Flight Test Performance Summary	Soumyo Dutta	NASA Langley Research Center	
10:42 AM	Aeroheating Tests Of Hayabusa Sample Return Capsule In Shock Tunnel And Expansion Tube	Hide Tanno	JAXA Kakuda	
10:54 AM	Challenges In Qualification Of Thermal Protection Systems In Extreme Entry Environments	Milad Mahzari	NASA Ames Research Center	
11:06 AM	Progress Towards Modeling The Mars Science Laboratory Pica-Nusil Heatshield	Brody Bessire	NASA Ames Research Center	
11:18 AM	Preliminary Results from Shock-layer Radiation Experiments in the T6 Aluminium Shock Tube	Peter Collen	University of Oxford	Student
11:30 AM	Current Status of Shock Layer Radiation Studies for Planetary Probes	Brett Cruden	AMA Inc. at NASA Ames Research Center	
11:42 AM	Mars 2020 EDL System Test Design and Progress	Mallory Lefland	Jet Propulsion Laboratory, California Institute of Technology	
11:54 AM	Validation Of The Mars 2020 Dsends Simulation Of Entry, Descent, And Landing Using Msl Reconstruction Data	Clara O'Farrell	Jet Propulsion Laboratory, California Institute of Technology	
12:06 PM	Lunch			
<b>Closing Session - Conveners: Pat Beauchamp and Jean-Pierre Lebraton</b>				
1:30 PM	SOC Awards Ceremony			
1:42 PM	Decadal Survey	Bernie Bienstock, Jim Cutts, Pat Beauchamp	Jet Propulsion Laboratory, California Institute of Technology	
1:57 PM	White Papers For The Next Decadal Survey: Thermal Protection Systems And Instrumentation	Helen Hwang	NASA Ames Research Center	
2:07 PM	Insight Overview	Tom Hoffman	Jet Propulsion Laboratory, California Institute of Technology	Keynote
2:37 PM	Silicon Seismometers, from Mars to Europa and Beyond	Tom Pike	Imperial College London	Keynote
3:10 PM	IPPW-2020	Aga Goodsell, David Cornelius	NASA Ames Research Center; AMA Inc. at NASA Ames Research Center	
3:25 AM	IOC Closing Remarks	Bernie Bienstock	Jet Propulsion Laboratory, California Institute of Technology	