IPPW 2018 - Posters

Opening		We need your help! The planetary probe Blue Book refresh	Todd	White	NASA Ames Research Center
Group I					
Inner Solar System Exploration		Exploring impact attenuating interfaces for a potential Mars sample return Earth entry vehicle	Cameron	Grace	University at Buffalo (SUNY)
Inner Solar System Exploration	(Student)	Altitude control for Venus balloons using phase change and loop heat pipes	Varun	Patel	San Jose State University
Inner Solar System Exploration	(Student)	3d printed liquid rocket engine design for Mars sample return missions	Tyler	Saunders	San Jose State University
Instrumentation and Experiments		Shock layer radiation measurements for planetary probes	Susan	White	NASA Ames Research Center
Instrumentation and Experiments	(Student)	High-temperature, anti-fouling coatings for Venus exploration	Ruiqi	Chen	Stanford University
Instrumentation and Experiments	(Student)	Gas barrier thermal testing for convective heating improvement for emergency fire shelters (CHIEFS)	Jonathan	Cheatwood	Virginia Tech
Instrumentation and Experiments	(Student)	Investigation of coatings for Langmuir probes in an oxygen-rich space environment	Joseph	Samaniego	Univeristy of Colorado - Boulder
Instrumentation and Experiments	(Student)	A double hemispherical probe (DHP) for interpreting probe measurements in the spacecraft sheath	Joseph	Samaniego	Univeristy of Colorado - Boulder
Lunar and Small Body Exploration	(Student)	A design for repeatable NEO flyby missions	Oscar	Fuentes-Munoz	CU Boulder
Lunar and Small Body Exploration	(Student)	Estimation evaluation of the radio science phase of the OSIRIS-REx mission	Daniel	Brack	University of Colorado Boulder
Lunar and Small Body Exploration	(Student)	Analysis of structural effects on seismic instruments on-board space exploration landers	Vikram	Krishnaswamy	ISAE-SUPAERO
Lunar and Small Body Exploration	(Student)	Current and future researches at ISAE-SUPAERO in autonomous operations orbiting an unknown asteroid through imagery	Paolo	Panicucci	ISAE-Supaero
Lunar and Small Body Exploration	(Student)	Orbit determination using Markov chain Monte Carlo	Andrew	French	University of Colorado
Lunar and Small Body Exploration		Simulations of a gas concentrator for mass spectrometry of tenuous atmospheres	Savio	Poovathingal	Montana State University
Group II					
Modeling, Simulation, and Validation	(Student)	Design exploration, optimization and model-based engineering for nano-satellite mission design	Justin	Ancheta	San Jose State University - Aerospace Engineering
Modeling, Simulation, and Validation	(Student)	Using Bezier triangles for modeling small body shapes and their inertia properties in the presence of uncertainty	Benjamin	Bercovici	University of Colorado Boulder
Modeling, Simulation, and Validation		Full-scale MSL heatshield material response using DSMC and CFD to compute the aerothermal environments	Arnaud	Borner	NASA Ames Research Center
Modeling, Simulation, and Validation	(Student)	Development of a thermo-elastic solver for modeling woven thermal protection systems	David	Dang	University of Michigan
Modeling, Simulation, and Validation		CFD code validation for Mars entry simulation	Luigi	Cutrone	Italian Aerospace Research Center
Modeling, Simulation, and Validation		Common-probe: Interplanetary trajectory design	Marcus	Lobbia	Jet Propulsion Laboratory
Modeling, Simulation, and Validation		Inverse determination of aeroheating and charring ablator response	Jeremie	Meurisse	STC at NASA Ames Research Center
Modeling, Simulation, and Validation	(Student)	Planetary probe entry models for concurrent and integrated interplanetary mission design	Alec	Mudek	Purdue University
Modeling, Simulation, and Validation		6-DoF CFD simulations of Cobra mid-L/D rigid vehicle ballistic range test	Ben	Nikaido	NASA Ames
Modeling, Simulation, and Validation		Dynamics of FiberForm oxidation	Savio	Poovathingal	Montana State University
Modeling, Simulation, and Validation	(Student)	Aerogravity assist maneuver variability analysis using global reference atmospheric models	Swapnil	Pujari	Georgia Institute of Technology / Space Systems Design Laboratory
Modeling, Simulation, and Validation	(Student)	A comparison of different filtering techniques applied to autonomous navigation using X-ray pulsars	Vishal	Ray	CU Boulder
Modeling, Simulation, and Validation	(Student)	Multi-fidelity modeling for efficient aerothermal prediction of hypersonic inflatable aerodynamic decelerators	Mario	Santos	Missouri University of Science and Technology
Modeling, Simulation, and Validation	(Student)	Validation of the KATS material response code with arc jet data	Olivia	Schroeder	University of Kentucky
Modeling, Simulation, and Validation	(Student)	Post-flight reconciliation modeling for the advanced supersonic parachute inflation research and experiment (ASPIRE) program `	Michelle	Pizzo	Old Dominion University
Modeling, Simulation, and Validation		Development of the ICARUS material response solver	Eric	Stern	NASA Ames Research Center
Modeling, Simulation, and Validation	(Student)	Satellite and payload simulator of EntrySat 3U CubeSat	Adriaen	Van Camp	ISAE-SUPAERO
Modeling, Simulation, and Validation		Mars 2020 second chance flight software	Aaron	Stehura	Jet Propulsion Laboratory
Modeling, Simulation, and Validation		Shock shape transition on spherically blunted cones in hypersonic flows	Jan	Martinez Schramm	German Aerospace Center
Modeling, Simulation, and Validation	(Student)	Aerodynamic stability analysis of a cubesat in rarefied flow	James	Williams	University of Illinois at Urbana-Champaign
Group III					
Aerosciences and Entry Technology	(Student)	Study on EDL sequence of martian penetrator	Tomoya	Kazama	Tokyo University of Science
Aerosciences and Entry Technology	(Student)	Mission design optimization for consecutive aerocapture-entry systems at Mars	Evan	Zinner	University of Illinois at Urbana-Champaign
Aerosciences and Entry Technology	(Student)	Investigation of DPG properties as a material in a self-healing thermal protection system	Nate	Skolnik	University of Illinois at Urbana-Champaign

Aerosciences and Entry Technology	(Student)	Fast design technique for conceptual hypersonic entry vehicle	Kevin	Bonnet	University of Colorado Boulder
Aerosciences and Entry Technology	(Student)	Drag-modulation aerocapture on Mars: Independent capability insertion for small satellites	Giusy	Falcone	University of Illinois at Urbana-Champaign
Aerosciences and Entry Technology		Aerothermal design of a common probe for multiple planetary destinations	Gary	Allen	NASA Ames Research Center
Aerosciences and Entry Technology		Reduced lift-to-drag vehicle concepts for Neptune aerocapture	Casey	Heidrich	University of Colorado Boulder
Aerosciences and Entry Technology	(Student)	Single-stage drag-modulation GNC for Venus aerocapture demonstration	Evan	Roelke	University of Colorado Boulder
Aerosciences and Entry Technology		Sustaining phenolic impregnated carbon ablator (PICA) TPS for future NASA needs	Mairead	Stackpoole	NASA Ames Research Center
Demonstration and Flight Testing	(Student)	Kentucky re-entry universal payload system (KRUPS): Sub-orbital flights	James	Sparks	University of Kentucky
Demonstration and Flight Testing		Demonstration of a modular ascender for sample return missions	Florian	Ebert	Airbus Defence and Space
Demonstration and Flight Testing	(Student)	Design of a single wheel test rig for ocean worlds rovers	Ye	Lu	Purdue University
Descent and Landing Technology	(Student)	Analysis of supersonic, ejected debris far-field flight envelope	David	Blette	Georgia Tech
Descent and Landing Technology	(Student)	Adaptive attitude control system designed for NASAs ADEPT entry probes	Johnathon	Hicks	San Jose State University
Descent and Landing Technology		Integrated mission and Earth reentry capsule design for a sample return from the moons of Mars	Tiago	Hormigo	Spin.Works S.A.
Descent and Landing Technology		Aerodynamic instability measurement with free-flight capsule model in vertical wind tunnel	Hideyuki	Tanno	JAXA Kakuda
Descent and Landing Technology	(Student)	Minimum-fuel powered descent in the presence of uncertainty	Jack	Ridderhof	Georgia Institute of Technology
Descent and Landing Technology	(Student)	Testing of an instrumented Huygens mock-up in a subsonic wind tunnel: 1st campaign and preliminary results	Guillaume	Thebault	Polytech Orleans
Group IV					
Outer Solar System Exploration		Exploration of Pluto with a new-frontiers-class lander or orbiter mission	Benjamin	Goldman	Global Aerospace Corporation
Outer Solar System Exploration		Nuclear thermal propulsion: Enabling robust missions to the outer solar system	Mitchell	Rodriguez	NASA George C. Marshall Space Flight Center
Outer Solar System Exploration	(Student)	A surface mobility system with large deployable and conformal tire for ocean worlds exploration	Rachana	Agrawal	Purdue University
Outer Solar System Exploration		Dragonfly: Navigating Titan's surface	Douglas	Adams	Johns Hopkins Applied Physics Laboratory
Outer Solar System Exploration		Using radiation sails to transport interplanetary and interstellar probes	Ronald	Bennett	Business
Outer Solar System Exploration	(Student)	Simulating cavitation on the Titan seas	Damon	Chen	New York University
Outer Solar System Exploration	(Student)	Modeling exospheric escape and transfer processes in the Pluto-Charon system using a hybrid SPH-ballistic method	Shane	Carberry Mogan	New York University
Outer Solar System Exploration		The proposed HERA Saturn entry probe mission concept	David	Atkinson	Jet Propulsion Laboratory
Small and CubeSat Probes		Doppler wind retrievals of planetary zonal and meridional winds using constellations of SmallSats	David	Atkinson	Jet Propulsion Laboratory
Small and CubeSat Probes	(Student)	Radio occultations using CubeSats on martian atmosphere.	Ahmed	El Fadhel	University of Nice Sophia Antipolis
Small and CubeSat Probes	(Student)	Gallium nitride magnetic field sensor payload for suborbital flight	Karen	Dowling	Stanford University
Small and CubeSat Probes	(Student)	Recovering time and state for autonomous navigation used for small satellites	Andrew	Dahir	University of Colorado Boulder
Small and CubeSat Probes		High performance deployable photovoltaic systems for planetary exploration - MMA HaWK series	Mark	Bailey	MMA Design LLC
Small and CubeSat Probes	(Student)	Active control for mission extension (ACME) for CubeSat probes	Martin	Costa	San Jose State University
Small and CubeSat Probes	(Student)	Innovative deployable telescope enabling drastic remote-sensing enhancement capabilities of CubeSats with minimal platform impact	Tarik	Errabih	CentraleSupelec
Small and CubeSat Probes		Virtual reality in space: The next frontier for space exploration	Robert	Bruce	San Jose State University
Small and CubeSat Probes	(Student)	Spartan imaging satellite	Irvin	Quintero	San Jose State University
Small and CubeSat Probes		The CU-E^3 CubeSat: An entry in NASA's cube quest challenge's deep space derby	John	Sobtzak	University of Colorado - Boulder
Small and CubeSat Probes	(Student)	Innovative compact solar and antenna array drive assembly enabling deep space CubeSat missions	Marcus	Hott	Ecole CentraleSupelec Paris