



# IP Competition Shortlisted

Category	IP Code	Full Name	Country	Presentation Title	Symposium
A - Science and Exploration	IAC-18.A1.IP.28	ID: 42206 Mrs. Rosalin Goss	United States	Proton and FE Ion-Induced Early and Late Chromosome Aberrations in Human Epithelial and Fibroblast Cells	A1 IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM
	IAC-18.A1.IP.17	ID: 42606 Mrs. Antonella Sgambati	Germany	Myotonpro: a fast-track cots payload to enhance the human physiology research on iss and beyond.	A1 IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM
	IAC-18.A1.IP.25	ID: 45565 Dr. Manuela Aguzzi	Belgium	Ultrasound utilization training for applications in microgravity	A1 IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM
	IAC-18.A2.IP.3	ID: 42260 Ms. Rhonda Lyons	United States	WEISS-SAT1-A Student Developed MicroLab for Space Based Research	A2 IAF MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM
	IAC-18.A2.IP.4	ID: 42765 Mr. Fuzhen Chen	China	Numerical simulation of droplets capillary under microgravity with smoothed particle hydrodynamics	A2 IAF MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM
	IAC-18.A2.IP.8	ID: 46064 Mr. Tobias Steinpliz	Germany	Microgravity experiments on thermal creep in Martian soil	A2 IAF MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM
	IAC-18.A2.IP.12	ID: 47826 Mrs. Antje Neumann	Germany	Realistic 3D simulations of Bragg beam splitters for matter wave interferometry under microgravity	A2 IAF MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM
	IAC-18.A3.IP.9	ID: 42452 Prof. Tatsuaki Hashimoto	Japan	System design of CubeSat Semi-hard Moon Impactor: OMOTENASHI	A3 IAF SPACE EXPLORATION SYMPOSIUM
	IAC-18.A3.IP.27	ID: 42925 Dr. Adrian Stoica	United States	A south pole solar energy infrastructure to power up the lunar economy	A3 IAF SPACE EXPLORATION SYMPOSIUM
	IAC-18.A3.IP.37	ID: 48158 Mr. Lukasz Wisniewski	Poland	Prototype of a Hopter - a hopping scout robot for planetary exploration	A3 IAF SPACE EXPLORATION SYMPOSIUM
	IAC-18.A4.IP.3	ID: 45248 Ms. Daniela de Paulis	The Netherlands	Neuroscience in SETI : a contemporary case study from the arts and humanities.	A4 47th IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps
	IAC-18.A5.IP.8	ID: 43344 Mr. Rohan Chandra	India	Trajectory Design for Phobos & Study Proposition of Geodetic Framework for an Automated Mechanical Transitory Base-camp on Phobos	A5 21st IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM
	IAC-18.A5.IP.6	ID: 45722 Mr. Marius Schwinning	Germany	Conceptual design of a permanent Lunar surface base	A5 21st IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM
	IAC-18.A5.IP.2	ID: 48069 Mr. Lorenzo Bucci	Italy	Rendezvous in Lunar Near Rectilinear Halo orbits	A5 21st IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM
	IAC-18.A6.IP.30	ID: 44195 Mr. Takuma Nagata	Japan	Preliminary Study on Deorbit of Large Debris using a Charged Sail in Low Earth Orbit	A6 16th IAA SYMPOSIUM ON SPACE DEBRIS
	IAC-18.A6.IP.10	ID: 44514 Mr. Matteo Losacco	Italy	the multibeam radar sensor birales: performance assessment for space surveillance and tracking	A6 16th IAA SYMPOSIUM ON SPACE DEBRIS
	IAC-18.A6.IP.14	ID: 48165 Mr. Toby Harris	United Kingdom	The development of an orbital risk assessment capability	A6 16th IAA SYMPOSIUM ON SPACE DEBRIS
	IAC-18.A7.IP.4	ID: 42084 Mr. Bastian Burmann	Germany	FDIR Strategies on Missions with Highly Sensitive Optical Payloads	IAF SYMPOSIUM ON FUTURE SPACE ASTRONOMY AND SOLAR-SYSTEM SCIENCE MISSIONS
IAC-18.A7.IP.3	ID: 44416 Mr. Zhang Juxing	China	Research progress of on-orbit servicing technology on space astronomy	IAF SYMPOSIUM ON FUTURE SPACE ASTRONOMY AND SOLAR-SYSTEM SCIENCE MISSIONS	
IAC-18.A7.IP.1	ID: 47439 Ms. Monika Sharma	India	Dual Frequency Synthetic Aperture Radar Satellite	IAF SYMPOSIUM ON FUTURE SPACE ASTRONOMY AND SOLAR-SYSTEM SCIENCE MISSIONS	
B - Applications and Operations	IAC-18.B1.IP.13	ID: 42985 Dr. Michael Buchwitz	Germany	atmospheric carbon dioxide and methane	B1 IAF EARTH OBSERVATION SYMPOSIUM
	IAC-18.B1.IP.31	ID: 45053 Mr. Ahmed Kiyoshi Sugihara El Maghraby	United Kingdom	Coupled Orbital and Radiometric Performance Simulation of the Formation Flight Interferometric Radiometer for Geostationary Atmospheric Sounding	B1 IAF EARTH OBSERVATION SYMPOSIUM
	IAC-18.B1.IP.23	ID: 47285 Ms. Natalia Indira Vargas-Cuentas	China	Spatial-temporal Epidemiology Study of the Chikungunya Disease in Bolivia	B1 IAF EARTH OBSERVATION SYMPOSIUM
	IAC-18.B2.IP.14	ID: 41912 Mr. Jia Tian	China	The high sensitivity GPS L1 decoding method based on moon navigation mission	B2 IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM
	IAC-18.B2.IP.7	ID: 45323 Dr. Shengchang LAN	Finland	microsatellite navigation system design based on 21-centimeter spectral line	B2 IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM
	IAC-18.B2.IP.20	ID: 46175 Dr. Antonio Fulvio Scannapieco	United Kingdom	FPGA-based multi-sensor relative navigation in space: Preliminary analysis in the framework of the I3DS H2020 project	B2 IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM
	IAC-18.B3.IP.6	ID: 44496 Dr. Ralf Regele	Germany	OMON: A visual navigation system for flying through the International Space Station	B3 IAF HUMAN SPACEFLIGHT SYMPOSIUM
	IAC-18.B3.IP.9	ID: 46747 Dr. Sebastian Dchow	Germany	The RV53000 and RV53000-3D LIDAR Sensors for Rendezvous and Docking Missions	B3 IAF HUMAN SPACEFLIGHT SYMPOSIUM
	IAC-18.B6.IP.5	ID: 42552 Mr. Hamed Gamal	Poland	Optimizing Launch Preparations of a Suborbital Rocket	B6 IAF SPACE OPERATIONS SYMPOSIUM
	IAC-18.B6.IP.2	ID: 47878 Mr. Victor Loke	Singapore, Republic of	SpaceCentre-2018: An Advanced PWA-based Ground Station Application from FlatSat Testing to Mission Operations	B6 IAF SPACE OPERATIONS SYMPOSIUM
	IAC-18.B6.IP.1	ID: 48348 Mr. Berend Semke	Germany	Breakthroughs in the Automated Testing using Man-Machine Interface of Ground Segment Software	B6 IAF SPACE OPERATIONS SYMPOSIUM
C - Technology	IAC-18.C1.IP.3	ID: 43502 Mr. Duarte Rondao	United Kingdom	Multispectral Image Processing for Navigation Using Low Performance Computing	C1 IAF ASTRODYNAMICS SYMPOSIUM
	IAC-18.C1.IP.29	ID: 46049 Mr. Javier Sanchez	Germany	Next Steps for the CryoSat-2 mission: Improving sea-ice estimates in joint operations with the ICESat-2 spacecraft.	C1 IAF ASTRODYNAMICS SYMPOSIUM
	IAC-18.C1.IP.1	ID: 48235 Prof. Dr. William O'Connor	Ireland	Wave-based motion control of flexible space systems	C1 IAF ASTRODYNAMICS SYMPOSIUM
	IAC-18.C2.IP.33	ID: 43444 Mr. Paul Murugan J	India	Thermo structural Analysis of Solid Rocket scarfed Nozzle with composite Ablative Liners for Crew Escape Solid Motor	C2 IAF MATERIALS AND STRUCTURES SYMPOSIUM
	IAC-18.C2.IP.26	ID: 46865 Dr. Jin Yin	China	a multi-scale method of mechanical and thermal coupling analysis for thermal protection structure	C2 IAF MATERIALS AND STRUCTURES SYMPOSIUM
	IAC-18.C2.IP.5	ID: 47887 Dr. Susanna Laurenzi	Italy	Free vibrations of ultrathin deployable booms fabricated with nano-modified epoxy matrix	C2 IAF MATERIALS AND STRUCTURES SYMPOSIUM
	IAC-18.C3.IP.5	ID: 44423 Dr. Peng Li	China	Towards to Larger Capacity of EPS for CubeSat: Experience from Star of Axiang and Issues for Future Development	C3 IAF SPACE POWER SYMPOSIUM
	IAC-18.C3.IP.3	ID: 45256 Mr. Shakil Ahmed	Germany	Lunar based Solar energy production and transfer through Laser medium	C3 IAF SPACE POWER SYMPOSIUM
	IAC-18.C3.IP.10	ID: 45283 Dr. Longlong Zhang	China	Research on Hybrid Peak Power Tracking Topology and Strategy for Satellite Power System	C3 IAF SPACE POWER SYMPOSIUM
	IAC-18.C4.IP.8	ID: 47066 Mr. Yusuke Funakoshi	Japan	Control System of LE-9 Engine using Electric Drive Valves	C4 IAF SPACE PROPULSION SYMPOSIUM
	IAC-18.C4.IP.44	ID: 47170 Ms. Zhixin Wang	China	3D imaging of burning aluminum particles in solid propellant using digital inline holography	C4 IAF SPACE PROPULSION SYMPOSIUM
IAC-18.C4.IP.35	ID: 47920 Mr. Benedikt Determann	Germany	Status of Orion European Service Module Propulsion Subsystem Qualification Testing	C4 IAF SPACE PROPULSION SYMPOSIUM	
D - Infrastructure	IAC-18.D1.IP.5	ID: 44651 Mr. Luciano Pollice	Italy	A Preliminary Design of a Mission to Triton: a Concurrent Engineering Approach	D1 IAF SPACE SYSTEMS SYMPOSIUM
	IAC-18.D1.IP.30	ID: 45526 Mr. Martin Ristlov	Canada	Parallel, Remotely-Controlled Robotic Manipulation	D1 IAF SPACE SYSTEMS SYMPOSIUM
	IAC-18.D1.IP.6	ID: 46071 Mr. Tobias Osterloh	Germany	The Virtual Testbed Approach towards Modular Satellite Systems	D1 IAF SPACE SYSTEMS SYMPOSIUM
	IAC-18.D2.IP.11	ID: 43811 Dr. Christian Wendt	Germany	CFD based method for modeling convection within thermal system analysis tools for launchers	D2 IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM
	IAC-18.D2.IP.16	ID: 44394 Mr. Manfred Ehresmann	Germany	Low-Cost Prototype Development of a Lunar Massdriver	D2 IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM
	IAC-18.D2.IP.15	ID: 46852 Mr. Naser Ashkani	Kuwait	Performance Optimization of the Methano/LOX Sounding Rocket Systems	D2 IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM
	IAC-18.D3.IP.2	ID: 45745 Mr. JAVIER VINALS	Spain	Multi-functional interface for payload interconnection of robotic systems in space	D3 16th IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT
	IAC-18.D3.IP.4	ID: 46269 Mr. Marshall Quinn	The Netherlands	Fused Filament Fabrication of Polycarbonate Components in a Simulated On-Orbit Environment	D3 16th IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT
	IAC-18.D3.IP.1	ID: 47281 Mr. Mickael LAHÉ	Japan	Initial design characteristics, testing and performance optimisation for a lunar exploration micro-rover prototype.	D3 16th IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT
	IAC-18.D4.IP.8	ID: 42936 Dr. John Knappan	United Kingdom	Multi-stage space elevator – the benefits of scaling	D4 16th IAA
	IAC-18.D4.IP.5	ID: 46273 Dr. Anthony Freeman	United States	Technologies for the First Interstellar Explorer: Beyond Propulsion	D4 16th IAA
IAC-18.D4.IP.7	ID: 48595 Mr. Oleg Aleksandrov	United States	SCIENTIFIC-SPORTS COMMERCIAL PILOTED EXPEDITION TO VENUS	D4 16th IAA	
IAC-18.D5.IP.2	ID: 42767 Mr. Yevgeny Tsodikovich	Israel	"Hoopoe Nano-Satellites Constellation (Israel 70)" – a Potential Test-Bed for Dealing with Space Big Data	D5 51st IAA SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE ACTIVITIES	
E - Space and Society	IAC-18.E1.IP.27	ID: 44759 Dr. Kristine Dannenberg	Sweden	Hands-on space education with REXUS/BEXUS - Rocket and Balloon Experiments for University Students	E1 31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS
	IAC-18.E1.IP.1	ID: 47967 Ms. Callie Lissinna	Canada	Human Resources Procedures for the Advancement of Gender Parity in Student Space Mission Projects	E1 31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS
	IAC-18.E1.IP.33	ID: 44484 Ms. Montserrat Pinol Sole	The Netherlands	SAMI: High Resolution 3D Visualisation of ESA Earth Observation Satellite Missions	E1 31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS
	IAC-18.E3.IP.8	ID: 42081 Ms. Clelia Iacominio	Austria	Potential Contributions of Commercial Actors to Space Exploration	E3 31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS
	IAC-18.E3.IP.10	ID: 43157 Dr. Nikki Coleman	Australia	Terrorism and Space Security	E3 31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS
	IAC-18.E3.IP.13	ID: 48149 Ms. Laura Miquel Parra	Spain	international cooperation and general public involvement for future lunar missions	E3 31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS
	IAC-18.E5.IP.14	ID: 44973 Mr. Kyunghwan KIM	France	photobioreactor façade system for self-sustainable Moon surface habitat	E5 29th IAA SYMPOSIUM ON SPACE AND SOCIETY
	IAC-18.E5.IP.6	ID: 45084 Ms. Carlijn van der Werf	The Netherlands	Integrating Three Disciplinary Perspectives in an Iterative Design Process for the Surface Habitat of the First Human Mission to Mars	E5 29th IAA SYMPOSIUM ON SPACE AND SOCIETY
	IAC-18.E6.IP.6	ID: 42494 Mr. Michael Provenzano	United States	CubeRover: An Enabling Technology for Planetary Exploration	E6 IAF BUSINESS INNOVATION SYMPOSIUM
	IAC-18.E6.IP.4	ID: 48117 Ms. Susan Ip-Jewell	United States	The Entrepreneurial Vision with a Massive Transformative Purpose: Creating fully-immersive experiential simulation-based education with "lets get S.T.E.A.M.E.D." workshops and simulation EVAs using exponential technologies.	E6 IAF BUSINESS INNOVATION SYMPOSIUM
	IAC-18.E7.IP.5	ID: 42931 Prof. Kai-Uwe Schrogli	France	Which future for the "global commons"?	E7 61st IISL COLLOQUIUM ON THE LAW OF OUTER SPACE
	IAC-18.E7.IP.19	ID: 44114 Ms. Brenda Ulate Gamboa	Costa Rica	The application of the principles of Community law and Public International law in the proposal of a Central American Space Policy: ad hoc the Central American Court of Justice and COCESNA.	E7 61st IISL COLLOQUIUM ON THE LAW OF OUTER SPACE
	IAC-18.E7.IP.9	ID: 48326 Ms. Mari Amanda Eldholm	Norway	Space 4.0: creating incentives for states to clarify and coordinate interpretations of what activities constitutes responsibility and liability under international space law	E7 61st IISL COLLOQUIUM ON THE LAW OF OUTER SPACE