2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 001	Analyzing Herschel Calibration Maps for Determining the Physical Conditions of Massive Star Forming Regions	PINEDA GALVEZ, DR. JORGE LUIS	Astrophysics
RPC 002	Intensity Mapping of Cosmic Structures	SEIFFERT, DR. MICHAEL D	Astrophysics
RPC 003	Novel Approaches for the Global Signal Measurement from the Epoch of Reionization	SEIFFERT, DR. MICHAEL D	Astrophysics
RPC 017	Gravitational Wave Astronomy - Opening New Windows	VALLISNERI, DR. MICHELE	Astrophysics
RPC 004	Imaging Exoplanets with On-Sky Speckle Suppression at Keck	BOTTOM, MICHAEL	Astrophysics/Exoplanets
RPC 005	Observations of the Solar Corona in the Infrared (10um) at the US Eclipse of August 21st 2017	BRAGEOT, EMILY C	Astrophysics/Exoplanets
RPC 006	Testing Laws of Gravity with Imaging Surveys and CMB Observations	EIFLER, DR. TIM F	Astrophysics/Exoplanets
RPC 007	Kinematic Lensing: A New Method for Weak Gravitational Lensing Measurements	HUFF, DR. ERIC M	Astrophysics/Exoplanets
RPC 008	Thermal Pressure of Insterstellar Clouds from Far-IR & Submm Carbon Lines	VELUSAMY, DR. THANGASAMY	Astrophysics/Exoplanets
RPC 009	Science with the North America Array: Linking Ground and Space Astronomy	BRYDEN, DR. GEOFFREY	Astrophysics/Exoplanets
RPC 010	Laboratory Spectral Simulations of Habitable Exoplanet Atmospheres	GUDIPATI, DR. MURTHY S	Astrophysics/Exoplanets
RPC 011	Preparing for the Deluge: Joint Processing and Analysis of Multi-Probe Dark Energy Data in the Coming Decade	RHODES, DR. JASON D	Astrophysics/Exoplanets
RPC 012	CH4 Enhancement in the Atmosphere of Extrasolar Hot-Jupiter Type Planets: Clouds or Aerosols?	ROCHA, DR. GRACA M	Astrophysics/Exoplanets
RPC 013	Characterizing the FUV and NUV Variability of a Statistical Sample of Exoplanet-Host Stars as a Probe of the Star-Planet Interaction Phenomenon	SAHAI, DR. RAGHVENDRA	Astrophysics/Exoplanets
RPC 014	Characterizing Exoplanet Atmospheres from Space	SWAIN, DR. MARK R	Astrophysics/Exoplanets
RPC 015	Determining the State of Exoplanet Atmospheres	SWAIN, DR. MARK R	Astrophysics/Exoplanets
RPC 016	Planet Population Synthesis: Origins of the Observed Population of Rocky Exoplanets	TURNER, DR. NEAL J	Astrophysics/Exoplanets
RPC 018	Searching for Planets in "Holey Debris Disks"	VASISHT, DR. GAUTAM	Astrophysics/Exoplanets
RPC 090	Buildup of Abiotic Oxygen and Ozone in Oxidized Atmospheres of Temperate Terrestrial Exoplanets and its Impact on the Spectral Fingerprint in Transit Observations	KLEINBOEHL, DR. ARMIN	Astrophysics/Exoplanets
RPC 019	Analyses of Radio Data from Exoplanets	WINTERHALTER, DR. DANIEL	Astrophysics/Exoplanets
RPC 020	HAWC+ G.T.O. Program to Characterize Magnetic Fields in Nearby Interstellar Clouds	DOWELL, DR. CHARLES D	Astrophysics/Exoplanets
RPC 021	Leading Cosmological Analyses in DES & HSC - Preparing for WFIRST, Euclid, and LSST	EIFLER, DR. TIM F	Astrophysics/Exoplanets
RPC 022	Paradigm Change in Coupling Between the Earth's Magnetosphere and Ionosphere	VERKHOGLYADOVA, DR. OLGA P	Heliophysics/Astrophysics

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 023	MILESAntenna - "Micro-LEns Scanning Antenna"	ALONSO DEL PINO, DR. MARIA	Tech: Astro Instruments/Observatories
RPC 024	High Efficiency Nano-Structured Si and Ge Optics to Enable Visible to FIR Imaging and Spectroscopy	BALASUBRAMANIAN, DR. KUNJITHAPATHAM	Tech: Astro Instruments/Observatories
RPC 025	High Temperature Superconducting Nanowire Single Photon Detectors	BEYER, DR. ANDREW D	Tech: Astro Instruments/Observatories
RPC 026	Exoplanet Detection via Radio Frequency Emissions	DE SORIA-SANTACRUZ PICH, MARIA	Tech: Astro Instruments/Observatories
RPC 027	Plastic Inflatable Spherical Antenna	GOLDSMITH, DR. PAUL F	Tech: Astro Instruments/Observatories
RPC 028	III-V Active Pixel, Ultrahigh Performance Sensors for Shortwave Infrared Focal Plane Arrays at Very Low Cost	GREER, DR. HAROLD F	Tech: Astro Instruments/Observatories
RPC 029	First Ever Characterization of a Cooled 2.06 THz Schotty Based Receiver	HAYTON, DR. DARREN J	Tech: Astro Instruments/Observatories
RPC 030	Broadband NbN HEB Mixer for Heterodyne Spectroscopy on Origins Space Telescope	KARASIK, DR. BORIS S	Tech: Astro Instruments/Observatories
RPC 031	A 2 THz Monolithic 16-Pixel Heterodyone Receiver Array	KAWAMURA, DR. JONATHAN H	Tech: Astro Instruments/Observatories
RPC 032	An Ultrafast Electronic Variable Temperature Load for Noise and Gain Characterization of Millimeter and Submillimeter Wavelength (MMIC) LNAs and Radiometers	KOOI, JACOB W	Tech: Astro Instruments/Observatories
RPC 033	InSb Schottky Diode Based Mixers for Submillimeter-Wave Heterodyne Instruments	LEE, DR. CHOONSUP	Tech: Astro Instruments/Observatories
RPC 034	Defining and Designing the Optimal Approach for Imaging Collisions ub a Cloud of Dust Particles	SERABYN, DR. EUGENE	Tech: Astro Instruments/Observatories
RPC 035	Submillimeter Resonator Test-Chips to Screen the Integrity of Superconducting Thin Films	WEBER, DR. ALEXIS C	Tech: Astro Instruments/Observatories
RPC 036	Antenna-Coupled TES Bolometer Arrays for CMB Polarimetry	BOCK, DR. JAMES J	Tech: Astro Instruments/Observatories
RPC 037	Technology for the Far-IR Surveyor: Demonstration of Large-Format Wideband Millimeter-Wave Spectroscopy with SuperSpec	BRADFORD, DR. CHARLES M	Tech: Astro Instruments/Observatories
RPC 038	A New Framework for Detecting Exoplanet Habitability and Life	CHEN, DR. PIN	Tech: Astro Instruments/Observatories
RPC 039	A Flexible Radio-Frequency Readout for Multiplexed Submillimeter-Wave Detectors	DOWELL, DR. CHARLES D	Tech: Astro Instruments/Observatories
RPC 040	Investigation of the Noise and Stability Performance of Multi-Finger Indium Phosphide Monolithic Microwave Integrated Circuit Amplifiers	FUNG, DR. KING MAN	Tech: Astro Instruments/Observatories
RPC 041	An Ultrabroadband THz Heterodyne Receiver with Reduced Cryocooling Requirements	KARASIK, DR. BORIS S	Tech: Astro Instruments/Observatories
RPC 042	Laser Metrology for Coronagraph-Equipped Telescopes	NISSEN, DR. JOEL A	Tech: Astro Instruments/Observatories
RPC 043	Towards High-Precision Navigation and Science Investigations with Deep-Space Optical Transceivers	TURYSHEV, DR. SLAVA G	Tech: Astro Instruments/Observatories

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 044	Mid-IR Frequency Comb Generation for Very High Angular Resolution Astronomy	VASISHT, DR. GAUTAM	Tech: Astro Instruments/Observatories
RPC 045	The Palomar Habitable Zone Planet Finder	VASISHT, DR. GAUTAM	Tech: Astro Instruments/Observatories
RPC 046	Ultra-Wideband Receiver Package for the North American Array	VELAZCO, DR. JOSE E	Tech: Astro Instruments/Observatories
RPC 047	A Demonstration of Precision Redial Velocity at the 10 cm/sec Level	WALLACE, JAMES K	Tech: Astro Instruments/Observatories
RPC 048	Combining CMB (ACTPol, Stage IV) and Weak Lensing data (HSC, Euclid, WFIRST, LSST)	RHODES, DR. JASON D	Tech: Astro Instruments/Observatories
RPC 050	Low-Loss, Low-Noise, Crystalline Silicon Dielectric for Superconducting Microstrip and Kinetic Inductance Detector Capacitors	BEYER, DR. ANDREW D	Tech: Astro Instruments/Observatories
RPC 051	A Visible light Coronagraph for High Contrast Imaging and Spectroscopy at Palomar	SERABYN, DR. EUGENE	Tech: Astro Instruments/Observatories
RPC 052	iPLUMES - Integrated Planetary Ultra-Sensitive Molecular Emission Spectrometer	SILES PEREZ, DR. JOSE VICENTE	Tech: Astro Instruments/Observatories
RPC 159	Active Mirrors for High-Contrast Imaging	STEEVES, DR. JOHN B	Tech: Astro Instruments/Observatories
RPC 225	Assessing the DSN Capabilities for Blazar Monitoring	RIES, DR. PAUL A	Tech: Astro Instruments/Observatories
RPC 053	Extreme Weather Initiative	SU, DR. HUI	Earth Science/Atmosphere
RPC 054	Development and Validation of New Unified Parameterizations for Cloud and Boundary Layer Dynamics	TEIXEIRA, DR. JOAO P	Earth Science/Atmosphere
RPC 055	Non-linearly interacting waves in Earth's upper atmosphere as discerned in the new JPL "MUSTARD" observation record	LIVESEY, DR. NATHANIEL J	Earth Science/Atmosphere
RPC 056	Science System Engineering and Uncertainty Quantification for Sea Level Rise Predictions	BOENING, DR. CARMEN	Earth Science/Oceans
RPC 057	Improving Our Understanding of Ocean Acidification and the Effects of Novel Carbon Sequestration Mechanisms in the Ocean using ECCO-Darwin and New Rules for Carbonate Dissolution	MENEMENLIS, DR. DIMITRIS	Earth Science/Oceans
RPC 058	Improving Sea Level Rise Projections by Coupling Continental Scale Ice and Ocean Models	SEROUSSI, DR. HELENE L	Earth Science/Oceans
RPC 059	Ocean Acidification Revealed from Space	XIE, DR. XIAOSU	Earth Science/Oceans
RPC 060	Data Combination of GRACE and CryoSat	WIESE, DR. DAVID N	Earth Science/Surface and Solid
RPC 061	Evaluation of Ground-Based Solar-Induced Chlorophyll Fluorescence for Satellite Validation and Vegetation Studies	DREWRY, DR. DARREN T	Earth Science/Surface and Solid
RPC 062	Global Signature of Earth's Magnetic Field in 118 GHz O2 Line, Seen Off-Nadir	READ, DR. WILLIAM G	Earth Science/Surface and Solid
RPC 063	Water Initiative	FAMIGLIETTI, DR. JAMES S	Earth Science/Surface and Solid
RPC 064	Ice-Shelf and Ice Stream Dynamics, Coupling and Instability Inferred from Short and Medium Timescale Satellite Observations of 4D Surface Displacements	KHAZENDAR, DR. ALA	Earth Science/Surface and Solid
RPC 065	Solid Earth and Natural Hazards (SE/NH): Linking Solid Earth and Climate	OWEN, DR. SUSAN E	Earth Science/Surface and Solid

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 066	Flow of Water, Carbon, and Sediment within the Land-Sea Continuum	SIMARD, DR. MARC	Earth Science/Surface and Solid
RPC 233	Carbon and Ecosystems Strategic Initiative	SCHIMEL, DR. DAVID S	Earth Science/Surface and Solid
RPC 067	Low-Cost Structure from Motion Techniques for Studying Earthquake Faults	DONNELLAN, DR. ANDREA C	Earth Science/Surface and Solid
RPC 068	Linking seismicity and fault surface properties	GLASSCOE, MARGARET T	Earth Science/Surface and Solid
RPC 069	Miniature Near-IR laser spectrometer for water isotopologues in clouds	HERMAN, DR. ROBERT L	Earth Science/Surface and Solid
RPC 070	Improving volcano eruption forecasts with satellite-derived topographic maps and physics-based models	LUNDGREN, DR. PAUL R	Earth Science/Surface and Solid
RPC 071	CANOPY WATERInfrared remote sensing of canopy water	THOMPSON, DR. DAVID R	Earth Science/Surface and Solid
RPC 072	Capturing the Behavior of Earthquake Fault Systems using Geodetic and Topographic Imaging	DONNELLAN, DR. ANDREA C	Earth Science/Surface and Solid
RPC 073	Land Surface and Sea Ice State Characterization with GPS Reflections Data: Characterizing Wetlands, Land Freeze/Thaw Transitions, and Polar Sea Ice with Bistatic Radar	PODEST, DR. ERIKA V	Earth Science/Surface and Solid
RPC 074	The JPL Fire Danger Assessment Systems (FDAS): Using Satellite Observations to Map Global Wildfire Risk	REAGER, DR. JOHN T	Earth Science/Surface and Solid
RPC 075	Revolutionizing Our Understanding of Coastal Dynamics in Wetlands and Estuaries using Measurements of Water Surface Elevation and Velocity	SIMARD, DR. MARC	Earth Science/Surface and Solid
RPC 076	Understanding Spectral Noise in the Long Wave Infrared	CAWSE-NICHOLSON, DR. KERRY-ANNE	Tech: Earth Science Instruments
RPC 077	Exploration of HEALPix as data aggregation & representation too for Earth Science appllications	GORSKI, DR. KRZYSZTOF M	Tech: Earth Science Instruments
RPC 078	Next Generation Active/Passive Sensors for Observing Storm-Scale Processes from Space	BROWN, DR. SHANNON T	Tech: Earth Science Instruments
RPC 079	Multi-Functional 3-D Printed Customized Luneburg Lens Antennas for Future Earth Science Applications	HODGES, DR. RICHARD E	Tech: Earth Science Instruments
RPC 080	Developing Multi-Instrument Approaches to Observing Terrestrial Ecosystems and the Carbon Cycle	SCHIMEL, DR. DAVID S	Tech: Earth Science Instruments
RPC 081	Snowpack Radar Tomography Demonstration for a Snow Cover Mapping Mission	ESTEBAN-FERNANDEZ, DR. DANIEL	Tech: Earth Science Instruments
RPC 082	Interpreting Time Sequences of Microwave Measurements Over Clouds from a Convoy of Identical Scanning Radars and/or Radiometers, in Terms of the Underlying Dynamics	HADDAD, DR. ZIAD S	Tech: Earth Science Instruments
RPC 083	Bistatic Reflectometry using UHF Signals of Opportunity (SoOps) for SWE and RZSM Measurement	SHAH, DR. RASHMI	Tech: Earth Science Instruments

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 084	Community Seismic Network at JPL	VON ALLMEN, DR. PAUL A	Tech: Earth Science Instruments
RPC 085	Under Ice-Shelf Ocean Exploration	CASTANO, DR. REBECCA	Tech: Earth Science/Geoengineering
RPC 086	Magnetic Induction Responses from Icy Satellites with Conductive Oceans	BILLS, DR. BRUCE G	Planetary Science
RPC 087	Exploring Extreme Retro-Reflection by Asteroids using LCO Observations	GOGUEN, DR. JAY D	Planetary Science
RPC 088	Dielectric Characterization of Evaporites in Martian Conditions	NUNES, DR. DANIEL C	Planetary Science
RPC 089	Ocean Worlds	HAND, DR. KEVIN P	Planetary Science
RPC 091	Planetary Interior Structure and Dynamics: New Directions for Research at JPL	LOPES, DR. ROSALY M	Planetary Science
RPC 092	Support for NEOWISE Reactivation Science	MAINZER, DR. AMANDA K	Planetary Science
RPC 093	Implementation of a Generic, Fast and Optimized Radiative Transfer Model for Planetary and Exoplanetary Atmospheric Characterization	NATRAJ, DR. VIJAY	Planetary Science
RPC 094	Correlating Ancient Sedimentary Environments in the Rock Record of Early Mars	STACK MORGAN, DR. KATHRYN M	Planetary Science
RPC 095	Laboratory Studies of the Heterogeneous Uptake of Methane in the Martian Atmosphere	SANDER, DR. STANLEY P	Planetary Science
RPC 096	A Low-Power, Non-Radioactive X-Ray Source for Planetary XRF Instruments	FLANNERY, DR. DAVID T	Planetary Science Instruments
RPC 097	Fabrication, Characterization and Packaging of Diode Lasers for the Improved Detection of Hydroxyl (OH) Radicals	FRADET, MATHIEU	Planetary Science Instruments
RPC 098	Which Came First, Proteins or Cofactors? Recreating Metabolic Reactions on the Early Earth	BARGE, DR. LAURA M	Planetary Science/Life Detection
RPC 099	Science Case for Constellation Networks	CASTILLO, DR. JULIE C	Planetary Science/Life Detection
RPC 100	Integrated Multi-Scale Spatial and Spectral Observations of Mars Relevant Material in Support of Future Mars Missions	FRAEMAN, DR. ABIGAIL A	Planetary Science/Life Detection
RPC 101	Science Drivers for Icy Moon Seismology	VANCE, DR. STEVEN D	Planetary Science/Life Detection
RPC 102	Astrobiogeochemistry, Habitability, and Returned Sample Science	WILLIFORD, DR. KENNETH H	Planetary Science/Life Detection
RPC 103	Hydrothermal Green Rust as the Metabolic and Information Engine at Lifes Emergence	RUSSELL, DR. MICHAEL J	Planetary Science/Life Detection
RPC 104	Development of a High-Precision System to Generate Icy Comet Analogs	CHOUKROUN, DR. MATHIEU N	Tech: Planetary Science/Life Detection
RPC 105	Foundation for a Formulation of Soil/Dust Ejecta From Cratering by Supersonic Plumes Impacting Soils Having Different Characteristics	BELLAN, DR. JOSETTE	Tech: Planetary Science/Life Detection
RPC 106	Identification and Validation of Biogenic Preservation within Minerals: Microbiological Techniques for Future Life Detection Missions	PERL, SCOTT M	Tech: Planetary Science/Life Detection

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 107	Magnetic Levitation-Mediated Microfluidic Platform for Rapid Spore Quantification	VAISHAMPAYAN, DR. PARAG A	Tech: Planetary Science/Life Detection
RPC 108	Technology for Icy Moon Seismology	KEDAR, DR. SHARON	Tech: Planetary Science/Life Detection
RPC 109	Near Surface Wind on Mars: Aeolian Geomorphology and Erosion Rates on the Micro, Meso, and Macro Scales	KERBER, DR. LAURA A	Tech: Planetary Science/Life Detection
RPC 110	Submillimeter-Wave Exploration of Comets: Isotopic Water and Minor Species Composition	MEHDI, DR. IMRAN	Tech: Planetary Science/Life Detection
RPC 111	Development of Aseptic Assembly Techniques/Processes and Biobarrier/Bioshield Implementation Options for Recontamination Prevention	NEWLIN, LAURA E	Tech: Planetary Science/Life Detection
RPC 112	An Advanced, Compact, Ultraviolet Imaging Spectrometer for Planetary Systems	NIKZAD, DR. SHOULEH	Tech: Planetary Science/Life Detection
RPC 113	Combined Miniature Mass Spectrometer / Miniature Tunable Laser Spectrometer	WEBSTER, DR. CHRIS R	Tech: Planetary Science/Life Detection
RPC 114	Three-dimensional radiance simulations for trace gas spectroscopy from space	CRISP, DR. DAVID	Tech: Planetary Science/Life Detection
RPC 115	Micro Focus XRF Quantification for Applications in Planetary Science	ALLWOOD, DR. ABIGAIL C	Tech: Planetary Science/Life Detection
RPC 116	Multiwavelength Digital Holography for Spectral Discrimination of Bacteria and Minerals	LINDENSMITH, DR. CHRISTIAN A	Tech: Planetary Science/Life Detection
RPC 117	Electrochemical Sensors for Understanding Icy Worlds	NOELL, DR. AARON C	Tech: Planetary Science/Life Detection
RPC 118	Microfluidic Chemical Analyzer for Europa Flyby or Lander Missions	WILLIS, DR. PETER A	Tech: Planetary Science/Life Detection
RPC 119	New Electomechanical Technique for Detecting Life in Simulated Ocean World Environments Using a Protable In-Situ Electochemical Impedance Spectroscopy (EIS) System	CHIN, KEITH B	Tech: Planetary Science/life Detection
RPC 120	A Strategy for Life Detection with Multistage Mass Spectroscopy	HODYSS, DR. ROBERT P	Tech: Planetary Science/Life Detection
RPC 121	Microwave Sample Processing Suite (MiSPS) for Pyroysis-Like and SCWE-Like Processing to Enable Chemical Detection	SCOTT KRISTOF, DR. VALERIE	Tech: Planetary Science/Life Detection
RPC 122	A 2D Steerable Limb Viewing Sub-Millimeter Antenna for Mars	TAMPPARI, DR. LESLIE K	Tech: Planetary Science/Life Detection
RPC 123	Developing a JPL Mass Spectrometer for Planetary Missions	DARRACH, DR. MURRAY R	Tech: Planetary Science/Life Detection
RPC 124	Infrasound as a Geophysical Probe Using Earth as a Venus Analog	KOMJATHY, DR. ATTILA	Tech: Planetary Science/Life Detection
RPC 125	Enabling Small Spacecraft Assay of the NEO Population: A Need for Small, Capable, Readily-Replicable Payloads for Remote Sensing of Volatiles	RAYMOND, DR. CAROL A	Tech: Planetary Science/Life Detection
RPC 126	A combined mass spectrometry imaging and X-ray fluorescence (MS-XRF) system for analyzing geological samples	HODYSS, DR. ROBERT P	Tech: Planetary Science/Life Detection
RPC 127	Titan Lake Simulation Chamber	HODYSS, DR. ROBERT P	Tech: Planetary Science/Life Detection

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 128	Methane Sensing Immersion Grating Spectrometer	WILSON, DR. DANIEL W	Tech: Planetary Science/Life Detection
RPC 129	Remote Environment Scene Reconstruction & Visualization	LUO, VICTOR	Tech: Autonomous Systems
RPC 130	Autonomous Microbe Detection & Tracking for Holographic Microscopy	MANDRAKE, DR. LUKAS	Tech: Autonomous Systems
RPC 131	Reliable Software (Sandia Collaboration)	HAVELUND, DR. KLAUS	Tech: Computing
RPC 132	Trusted Data Analytics: Uncertainty Quantification	TURMON, DR. MICHAEL J	Tech: Computing
RPC 133	Verification Methods and Structuring Principles for Reliable Software Development	HAVELUND, DR. KLAUS	Tech: Computing
RPC 134	Assurance of Model-Based Fault Diagnosis Techniques	CHUNG, DR. SEUNG H	Tech: Computing
RPC 135	Scalable Phase Unwrapping with Redundant Arcs	LANKA SUBRAHMANYA, ANANTHA RAVI KIRAN	Tech: Computing/Autonomy
RPC 136	Shore-Based Planning of Multiple Heterogeneous Assets for Combined Space / Marine Sensing (KISS)	CHIEN, DR. STEVE A	Tech: Computing/Autonomy
RPC 137	Networked Constellation Software Technologies	CHIEN, DR. STEVE A	Tech: Computing/Autonomy
RPC 138	Validation of Flight and Ground Autonomous Scheduling	CHIEN, DR. STEVE A	Tech: Computing/Autonomy
RPC 139	Multi-Scale Reliability and Radiation Modeling for Virtual Assessment of High Performance Space Systems Designed using Commercial Electronics	ADELL, DR. PHILIPPE C	Tech: Flight Systems
RPC 140	Optimized Integrated Vehicle, Operations, and Network Constellation Design	HERZIG, SEBASTIAN J	Tech: Flight Systems
RPC 141	Hidden Effects of Extreme Environments on Space Microelectronics	FLEURIAL, DR. JEAN-PIERRE	Tech: Flight Systems
RPC 142	System Level Autonomy to Enable Autonomous Mapping Missions of Small Solar System Bodies	BARLTROP, KEVIN J	Tech: Flight Systems/Autonomy
RPC 143	Mini-Advanced Pointing Imaging Camera (mAPIC) and GPU Algorithms for Onboard Processing	PARK, DR. SANG H	Tech: Flight Systems/Avionics
RPC 144	Specification of Reusable Flight Software Components	BOCCHINO, ROBERT L	Tech: Flight Systems/Software
RPC 145	A New Path: Developing a JPL Capability for Quantitatively Forecasting Science Performance and Optimizing Mission Concepts	CUTLER, DR. CURT J	Tech: Mission Design
RPC 146	Develop an Exascale Computational Simulation Capability for JPL Planetary Protection Assessment	DAVIS, DR. GREGORY L	Tech: Mission Design
RPC 147	Modeling Red Noise to Reduce Long-Term Drift in Precision Navigation & Timing Applications	MANDIC, DR. MILAN	Tech: Orbital Mechanics/Navigation
RPC 148	AutoNAV Across the Solar System	BROSCHART, DR. STEPHEN B	Tech: Orbital Mechanics/Navigation

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 149	Radiometric Autonomous Navigation Fused with Optical for Deep Space Exploration	ELY, DR. TODD A	Tech: Orbital Mechanics/Navigation
RPC 150	Tying the Optical and Radio Celestial Reference Frames to Enable Seamless Navigation	JACOBS, CHRISTOPHER S	Tech: Orbital Mechanics/Navigation
RPC 151	Navigation Using Deep-Space Optical Communication Systems	MARTIN-MUR, TOMAS J	Tech: Orbital Mechanics/Navigation
RPC 152	Ground-Based Nanoradian Optical Astrometry and Applications to Navigation	ZHAI, DR. CHENGXING	Tech: Orbital Mechanics/Navigation
RPC 153	Dynamic Modeling of Articulated Space Robotic Spacecraft Using Dual Quaternions	BAYARD, DR. DAVID S	Tech: Orbital Mechanics/Navigation
RPC 154	Next-Gen AutoNav	ONO, DR. MASAHIRO	Tech: Orbital Mechanics/Navigation
RPC 259	l Oscillating Heat Pipe System for High-Density Hea	DAIMARU, DR. TAKURO	Tech: Navigation
RPC 049	Set-and-Hold Solid-State Piezoelectric Actuators	STEEVES, DR. JOHN B	Tech: Spacecraft Systems
RPC 155	Magnetoelastic Sensors for Telemetric Monitoring of Spacecraft Stress	RAIS-ZADEH, DR. MINA	Tech: Spacecraft Systems
RPC 156	Combining Power and Data using Powerline Communication for Harness Simplification and Mass Reduction	MITCHELL, ANDREW W	Tech: Spacecraft Systems
RPC 157	Venus Lander Technologies	RABINOVITCH, DR. JASON	Tech: Spacecraft Systems
RPC 158	A Formal Model for Assurance Case Development and Efficient Testing	SMITH, DR. BENJAMIN D	Tech: Spacecraft Systems
RPC 160	Space Systems Product Development: Research Opportunities for the Next Generation of Space Systems Engineers	ALIBAY, FARAH	Tech: Spacecraft Systems
RPC 161	Performance Assessment of Space-Based Radio Arrays	ALIBAY, FARAH	Tech: Spacecraft Systems
RPC 162	Material Characterization and Stochastic Modeling of Parachute Canopy Fabric and Seams	DAVIS, DR. GREGORY L	Tech: Spacecraft Systems
RPC 163	Magnetic Flux Pinning for Orbiting Sample Capture	JONES-WILSON, LAURA L	Tech: Spacecraft Systems
RPC 164	4-D Printed Integrated Architectures Multifunction through Mass Repurposing	POLIT CASILLAS, RAUL	Tech: Spacecraft Systems
RPC 165	Advanced Modeling of Fluid-Structure Interaction for Softgoods in Supersonic Flow (Advancement of Softgoods Modeling in Fluid Flows)	PETERSON, DR. LEE D	Tech: Spacecraft Systems/Avionics
RPC 166	Optical Atomic Clock for Fundamental Physics and Precision Metrology in Space	WILLIAMS, DR. JASON R	Tech: Spacecraft Systems/Avionics
RPC 167	Method of Smart-Screening for NAND Flash Memory Parts Based on Weak Bits	YANG-SCHARLOTTA, JEAN	Tech: Spacecraft Systems/Avionics
RPC 168	Attitude Dynamics and Control for Electrolysis Propulsion for Interplanetary SmallSats	JONES-WILSON, LAURA L	Tech: Spacecraft Systems/Control
RPC 169	High Efficiency LILT Solar Cells for Deep-Space Small Spacecraft	BOCA, ANDREEA	Tech: Spacecraft Systems/Power

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 170	Design and Demonstration of a Radioisotope Thermophotovoltaic Power System Using One General Purpose Heat Source Brick (Mock UP) to Produce 20 W Electric Power	RAJGURU, ADARSH	Tech: Spacecraft Systems/Power
RPC 171	Investigation for new science capability using gravity gradients from laser-ranging assisted atomic interferometry	YU, DR. NAN	Tech: Crosscutting Science Instruments
RPC 172	Crosscutting Spectrometer Advancement: High Throughput, Multi-Octave Imaging Spectrometer	GREEN, DR. ROBERT O	Tech: Crosscutting Science Instruments
RPC 173	Sounding Rocket Deployment and Advancement of a High Dynamic Range, High Efficiency, Ultraviolet Photon counting Imager for Astrophysics, Planetary, Earth and Space Science	NIKZAD, DR. SHOULEH	Tech: Crosscutting Science Instruments
RPC 174	Spatial Power Combining Amplifier (SPCA) for W-Band Radar in Earth and Planetary Science	SAMOSKA, DR. LORENE A	Tech: Crosscutting Science Instruments
RPC 175	Infusion of CMOS Electronics into Space Instruments	TANG, DR. ADRIAN J	Tech: Crosscutting Science Instruments
RPC 176	Next Generation Architectures for Microwave Radiometry on Micro Satellites and Smaller	LIM, DR. BOON H	Tech: Cubesats/SmallSats
RPC 177	Delay-Doppler Map (DDM) Software for Cubesat GNSS-Reflection Instruments	ROBISON, DAVID E	Tech: Cubesats/SmallSats
RPC 178	Towards Sub-mm Level Formation Knowledge and mm-Level Control of Distributed Spacecraft for Earth Remote Sensing using Small Satellites	ESTERHUIZEN, STEPHAN	Tech: Cubesats/SmallSats
RPC 179	Small Spacecraft Constellations for Innovative Planetary Atmospheric Investigations	MANNUCCI, DR. ANTHONY J	Tech: Cubesats/SmallSats
RPC 180	Submillimeter-Wave Spectrometer for Small Satellites	RECK, DR. THEODORE J	Tech: Cubesats/SmallSats
RPC 181	Two-Phase Thermal Control Technology for Small Spacecraft Exploration	SUNADA, ERIC T	Tech: Cubesats/SmallSats
RPC 182	Rad-Tolerant Low Power Avionics for Deep Space Small Spacecraft	WHITAKER, WILLIAM D	Tech: Cubesats/SmallSats
RPC 183	Inflatable Antenna Prototype Development for CubeSat Mission	BABUSCIA, DR. ALESSANDRA	Tech: Cubesats/SmallSats
RPC 184	Technology Development for Long Wavelength Astronomical Small Satellite	GOLDSMITH, DR. PAUL F	Tech: Cubesats/SmallSats
RPC 185	OUMission Design for Out-of-Ecliptic Plane CubeSat Concepts	GROGAN, DR. KEITH	Tech: Cubesats/SmallSats
RPC 186	Miniature Tether Electrodynamics Experiment	SINGH, VRITIKA	Tech: Cubesats/SmallSats
RPC 187	Dust-Off ! Advancing the DUST Concept to Flight	SMITH, JAMES A	Tech: Cubesats/SmallSats
RPC 188	Chip-Scale Heterodyne Spectrometers for CubeSats and Small Landers	CHEN, DR. PIN	Tech: Cubesats/SmallSats
RPC 189	Development of Low-Power SEP Technology to Enable High Delta-V Missions with SmallSat Spacecraft	CONVERSANO, DR. RYAN W	Tech: Cubesats/SmallSats

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 190	Student-led Design of a CubeSat Constellation Test bed for applications in Interplanetary Communication and Remote Sensing	BABUSCIA, DR. ALESSANDRA	Tech:Cubesats/Smallsats
RPC 191	Alkaline-Earth Silicon Nitrides for Bone Scaffold Tissue Engineering	BUX, DR. SABAH K	Tech: Materials and Manufacturing
RPC 192	Gradient Alloy Interfaces	DANDINO, CHARLES M	Tech: Materials and Manufacturing
RPC 193	Development of New High Performance Thermoelectric (TE) Materials through Electron Paramagnetic Resonance (EPR) Characterization	KIM, DR. SOON SAM	Tech: Materials and Manufacturing
RPC 194	Multifunctional Thermo-Structural Elements for Small Spacecraft via Additive Manufacturing	O'DONNELL, TIMOTHY P	Tech: Materials and Manufacturing
RPC 195	Qualified Electronics for Low Temperature Environment	YANG-SCHARLOTTA, JEAN	Tech: Materials and Manufacturing
RPC 196	Thermodynamic Modeling of Additively Manufactured Gradient Alloys	MCENERNEY, DR. BRYAN W	Tech: Materials and Manufacturing
RPC 197	Demonstration of a Microresonator Frequency Comb on the NIRSPEC Spectrograph at the Keck Observatory	BEICHMAN, DR. CHARLES A	Tech: Photonics
RPC 198	Optical Frequency Comb for 8-12 um Applications	GRUDININ, DR. IVAN S	Tech: Photonics
RPC 199	Enhanced Atomic Layer Etching Materials Development for Optics and Electronics	HENNESSY, DR. JOHN J	Tech: Photonics
RPC 200	The Grass is Always Blacker: AntireflectiveGaSb by RIE Micromasking	PEPPER, DR. BRIAN J	Tech: Photonics
RPC 201	A Self Referenced Electro Optic Modulation Frequency Comb for Extreme Precision Radial Velocity Detection	BEICHMAN, DR. CHARLES A	Tech: Photonics
RPC 202	JPL-Sandia Development of Superlattice-Doped Imagers for Ultrafast X-Ray Imaging	HOENK, DR. MICHAEL E	Tech: Photonics
RPC 203	Enhanced Barrier Infrared Detector and Focal Plane Array Development	TING, DR. DAVID Z	Tech: Photonics
RPC 204	Monolithic III-Nitride Nanowire Detectors on Silicon	GUNAPALA, DR. SARATH D	Tech: Photonics
RPC 205	Aluminum Plasmonics for Ultraviolet Sensors and Systems	HENNESSY, DR. JOHN J	Tech: Photonics
RPC 206	Metamaterials for Advanced Visible and Ultraviolet Optical Components	BELL, DR. LLOYD DOUG II	Tech: Photonics
RPC 207	Long-Wave Infrared Detectors for the Planetary Infrared Spectrometers	KHOSHAKHLAGH, DR. AREZOU	Tech: Photonics
RPC 208	Low-Power Far-IR Detectors for Temperature and Climate Monitoring Missions (LoFID)	RAIS-ZADEH, DR. MINA	Tech: Photonics
RPC 209	High-Contrast Imaging at High Frame Rates with MKIDs	VASISHT, DR. GAUTAM	Tech: Photonics/Superconducting
RPC 210	Resonator Bolometers for Photometric Millimeter Wave Polarimetry	O'BRIENT, DR. ROGER C	Tech: Photonics/Superconducting
RPC 211	Novel Readout for Deep Space Optical Communication Receivers	SHAW, MATT	Tech: Photonics/Superconducting
RPC 212	Distributed Transition Edge Sensor Arrays with Kinetic Inductance Readout	LEDUC, DR. HENRY G	Tech: Photonics/Superconducting

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 213	High Temperature Superconductor Bolometers for Planetary Science	LINDEMAN, DR. MARK A	Tech: Photonics/Superconducting
RPC 214	Next-Generation Miniaturized Thermal Imagers Based on Advanced Thermoelectric Alloys and an Innovative Ultra-Compact Optical Design	MARIANI, DR. GIACOMO	Tech: Photonics/Superconducting
RPC 215	Zero-Loss Superconducting Frequency Multiplier	CUNNANE, DR. DANIEL P	Tech: Photonics/Superconducting
RPC 216	Studying Instabilitiesin Hybrid Motors Using Liquefying and Classical Fuels	JENS, DR. ELIZABETH	Tech: Propulsion
RPC 217	Low Energy, Anhydrous Electrochemical CO2 Splitting to O2 and CO for Mars In-Situ Resource Utilization (ISRU)	JONES, DR. SIMON C	Tech: Propulsion
RPC 218	Hybrid Rocket Propulsion for CubeSats	KARP, DR. ASHLEY C	Tech: Propulsion
RPC 219	Characterizing Plasma Oscillations Using Active Wave Injection to Develop Long Life Hall Thrusters and Hollow Cathodes	POLK, DR. JAMES E	Tech: Propulsion
RPC 220	Investigation of Ignition and Transient Flow in Hybrid Rockets	REEVE, RONALD T	Tech: Propulsion
RPC 221	Ultra-High Specific Impulse Lithium-Fueled Ion Thruster for Interstellar Precursor Missions	BROPHY, DR. JOHN R	Tech: Propulsion
RPC 222	Moulin and Sub-Glacial Exploration	KLESH, DR. ANDREW T	Tech: Robotics
RPC 223	Integrated Perception and Planning Under Uncertainty (IP2U2) for Robust Autonomy	AGHAMOHAMMADI, DR. ALIAKBAR	Tech: Robotics
RPC 224	Miniature Robotic Instrument Arm	MCCORMICK, RYAN L	Tech: Robotics
RPC 226	Hydrothermal Vent Instrument Anchoring Platform	YAHNKER, CHRISTOPHER R	Tech: Robotics
RPC 227	Autonomous Small UAVs for In-Situ Observation of Ecosystem Properties from Leaf to Canopy	BROCKERS, DR. ROLAND	Tech: Robotics
RPC 228	Self-Reliant Rovers for Increased Mission Productivity	GAINES, DR. DANIEL M	Tech: Robotics
RPC 229	Underwater Mobile Manipulation	GILDNER, MATTHEW	Tech: Robotics
RPC 230	On-Orbit Mars Sample Transfer Technologies	MUKHERJEE, DR. RUDRANARAYAN M	Tech: Robotics
RPC 231	Technologies for International Science Space Station (TISSS)	MUKHERJEE, DR. RUDRANARAYAN M	Tech: Robotics
RPC 232	Exploring and Sampling Recurring Slope Lineae (RSL) and Other Extreme Terrains	NESNAS, DR. ISSA A	Tech: Robotics
RPC 234	Venus Surface Sample Acquisition and Transfer System	WILCOX, BRIAN H	Tech: Robotics
RPC 235	Adaptive Analysis using an AUV In-Situ Sensing System (of Upper Ocean Carbon Cycle using Long-Duration Autonomous In Situ Sensing System)	WOODWARD, GAIL M	Tech: Robotics
RPC 236	Detection and Correction of Model Anomalies from Sparse Observations	NESNAS, DR. ISSA A	Tech: Robotics
RPC 237	Learning to Predict Slip by Training on Prior Missions	NESNAS, DR. ISSA A	Tech: Robotics
RPC 238	Autonomous Navigation under Ice with IceFin	WOODWARD, GAIL M	Tech: Robotics
RPC 239	Tactile Wheels for Robust Surface Mobility, Sampling, Surveying, and Science	KENNEDY, BRETT A	Tech: Robotics

2017 JPL Research Poster Confence Poster Listing

Poster #	Poster Title	Presenter	Discipline
RPC 240	Stable Field Emitters Using Inverse Opal Structures	MONTEMAYOR, LAUREN C	Tech: Robotics
RPC 241	Fast Optimal Motion Planning with High Fidelity Dynamics	RAHMANI, DR. AMIR	Tech: Robotics
RPC 258	Crack & Plume Vent Mobility	CARPENTER, KALIND C	Tech: Robotics
RPC 260	Deep Learning Illumination-Invariant Surface Features for Visual Mavigation	REID, DR. ROBERT G	Tech: Robotics
RPC 242	Time Delayh Mechanical-Noise Cancellation (TDMC) Concept: Study of Potential Sites & Antennas to Provide Order of Magnitude Improvements in Radio Science Observations	BABUSCIA, DR. ALESSANDRA	Tech: Telecomm
RPC 243	Coding for Quantum Optical Communication	DIVSALAR, DR. DARIUSH	Tech: Telecomm
RPC 244	Radio Science and Astronomy via the Universal Space Transponder	PUGH, MICHAEL P	Tech: Telecomm
RPC 245	Low-Profile High-Gain Deployable Metasurface Telecommunication Antenna for Ka-Band	CHATTOPADHYAY, DR. GOUTAM	Tech: Telecomm
RPC 246	Enabling the Assimilation of Radar Measurements over Vegetation into Land Models	AHMED, DR. RAZI U	Tech: Telecomm/Radar
RPC 247	IMAGER - Imaging Magama, Aquifers, and Groundwater via the Electomagnetic Resonance-Radar	ARUMUGAM, DR. DARMINDRA D	Tech: Telecomm/Radar
RPC 248	Fabrication of a Corrugated Silicon Platelets Horn Antenna Array at 490-600 GHz	DECROSSAS, DR. EMMANUEL	Tech: Telecomm/Radar
RPC 249	Non-Contact Ground Penetrating Radar	THRIVIKRAMAN, DR. TUSHAR	Tech: Telecomm/Radar
RPC 250	Synergistic Use Telecommunications Systems to Conduct Bistatic Radar Observations for Planetary Science	BELL, DAVID J	Tech: Telecomm/Radar
RPC 251	GNSS Reflections Retrievals from SMAP	ESTERHUIZEN, STEPHAN	Tech: Telecomm/Radar
RPC 252	Networked Constellation Communications Technologies	GAO, DR. JAY L	Tech: Telecomm/Radar
RPC 253	Wireless Applique for Integration and Test	LAY, DR. NORMAN E	Tech: Telecomm/Radar
RPC 254	Enabling a GNSS Bistatic Radar Instrument for Inundation Sensing	LOWE, DR. STEPHEN T	Tech: Telecomm/Radar
RPC 255	Implementation of Solid State Amplifier Module for One Megawatt Solid State Solar System Radar	OCAMPO, JUAN J	Tech: Telecomm/Radar
RPC 256	Adaptive EMI Mitigation	BELL, DAVID J	Tech: Telecomm/Radar
RPC 257	Radar Sounding and Propagation through Heterogeneous Media	HAYNES, DR. MARK S	Tech: Telecomm/Radar