| Poster<br>Number          | Title   | Postdoc Advisor      | Postdoc Category                                      | Author           |
|---------------------------|---|----------------------|---|------------------|
|                           | Astronomy   | and Fundamental Phys | ics (main tent)                                       |                  |
| A-01                      | Radio and X-Ray Monitoring of Active<br>Magnetars   | Walid Majid          | Astrophysics and Space Science                        | Robert Wharton   |
| A-03                      | Vertical Extent of Mm-Sized Dust in the<br>Young Disk Around IRAS04302  | Karl Stapelfeldt     | Astrophysics and Space Science                        | Marion Villenave |
| A-04                      | Non-Linear Power Spectrum Models for<br>Roman High Latitude Spectroscopic Survey<br>Between 1.0 < Z < 1.2   | Daniel Stern         | Astrophysics and Space Science                        | Kevin McCarthy   |
| A-05                      | A Temperature Trend for Clouds and Hazes in Exoplanets Atmospheres  | Mark Swain           | Astrophysics and Space Science                        | Raissa Estrela   |
| A-06                      | High-Fidelity Reaction Kinetic Modeling of<br>Hot-Jupiter Atmospheres Incorporating<br>Thermal and UV-Photochemistry Enhanced<br>By Metastable CO | Murthy Gudipati      | Astrophysics and Space Science                        | Jeehyun Yang     |
| A-07                      | Testing Gravity with the Motion of Galaxies<br>in and Around Galaxy Clusters  | Eric Huff            | Astrophysics and Space Science                        | Andrew Robertson |
| A-08                      | Complementary Cosmological Simulations  | Alina Rhodes         | Astrophysics and Space Science                        | Gabor Racz       |
| A-09                      | Volcanic Exomoons Glowing in Alkali and<br>Infrared Light   | Rosaly Lopes         | Astrophysics and Space Science                        | Apurva Oza       |
| A-11                      | Investigating the Lens-Dynamic Mass<br>Discrepancy  | Leonidas Moustakas   | Astrophysics and Space Science                        | Michael Talbot   |
| A-12                      | Cosmic Shear from Individual Galaxies   | Jason Rhodes         | Astrophysics and Space Science                        | Spencer Everett  |
| Earth Science (main tent) |   |                      |   |                  |
| EA-01                     | Inferring the Sensitivity of Warm Rain<br>Efficiency to Cloud Size and the Environment<br>Using A-Train Observations                              | Matthew Lebsock      | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate | Kevin Smalley    |

| E | EA-02 | Using Remote Sensing and In Situ Datasets to<br>Distinguish Coastal from Ocean Sea Surface<br>Temperature Forcing Over the Last 18 Years                                | Jorge Vazquez       | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate  | Rachel Spratt         |
|---|-------|---|---------------------|--|-----------------------|
| E | EA-04 | Evaluation of the ECCO-SWOT DA System in<br>the California Current at the SWOT<br>Calibration/Validation Site Based On the Pre-<br>Launch Oceanography Field Experiment | Lee-Lueng Fu        | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate  | Babette Tchonang      |
| E | EA-05 | High Resolution Vertical Land Motion Along the U.S. East Coast  | Benjamin Hamlington | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate  | Brett Buzzanga        |
| E | EA-06 | Building Bridges Between Land and Ocean<br>Carbon Budgets   | Dimitris Menemenlis | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate  | Raphael Savelli       |
| E | EA-07 | Ice-Shelf Basal Melt and Dynamics of<br>Petermann Glacier, Greenland from High-<br>Resolution InSAR Data  | Eric Rignot         | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate  | Enrico Ciracì         |
| E | EA-08 | Assessing the Quality of GNSS Radio<br>Occultation Observations in Tropical<br>Cyclones   | Chi Ao              | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate  | Kevin Nelson          |
| E | EA-09 | Calibration of Compact Ocean Wind Vector<br>Radiometer (COWVR)  | Sidharth Misra      | Earth Science: Ocean, Ice,<br>Atmosphere, and Climate  | Maryam Salim          |
| E | EA-10 | All-Semiconductor Continuous-Wave<br>Volumetric Ranging for Spaceborne<br>Differential Absorption Lidar   | Siamak Forouhar     | Technology, Instrumentation, and<br>Engineering        | Simone Bianconi       |
| E | EB-01 | Developing Algorithms for Extracting Water<br>Surface Slopes from SWOT In Coastal Areas   | Marc Simard         | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Alexandra Christensen |
| E | EB-03 | Spatiotemporal Variations of Stress and<br>Strain in the Crust Near 2019 Ridgecrest<br>Earthquake Sequence  | Eric Fielding       | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Niloufar Abolfathian  |
| E | EB-05 | Spatially Constrained Retrievals for Earth-<br>Facing Imaging Spectroscopy  | David Thompson      | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Regina Eckert         |
| E | EB-06 | Data: Collection, Access & Utilization from an Applied Science Perspective  | Catalina Oaida      | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Cassandra Nickles     |

| EB-07 | Advances On Polarimetric Bistatic Radar and Atmospheric Sounding   | Nereida Rodriguez<br>Alvarez | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Joan Munoz-Martin              |
|-------|--|------------------------------|--|--------------------------------|
| EB-08 | Large-Scale Vertical Land Motion from Time-<br>series InSAR Displacements  | David Bekaert                | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Marin Govorcin                 |
| EB-09 | Retrieval of Field-Scale Surface Soil Moisture<br>Over Corn, Soybean and Cotton Crops in the<br>US South Using Synthetic Aperture Radar<br>(SAR) for the NISAR Mission | Seungbum Kim                 | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Ponnurangam<br>Gramani Ganesan |
| EB-10 | Vegetation Structure Estimation Over<br>California   | Sasan Saatchi                | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Samuel Favrichon               |
| EB-11 | Using Machine Learning to Map Dynamic<br>Surface Water Extent from Harmonized SAR<br>and Optical Imagery   | Charles Marshak              | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Karthik<br>Venkataramani       |
| EB-12 | Global Patterns in Plant Phenolics Revealed with Spaceborne Imaging Spectroscopy   | Michelle Gierach             | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Adam Chlus                     |
| EB-14 | Towards Consistent Imaging Spectroscopy-<br>Based Aboveground Biomass Retrievals in<br>Coastal Wetlands Across Atmospheric States                                      | Marc Simard                  | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Daniel Jensen                  |
| EB-15 | Estimation of Tree Growth Rates with GEDI<br>Data  | Marc Simard                  | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Adriana Parra                  |
| EB-16 | Monitoring Water Level Change in Wetlands<br>With Nisar  | Marc Simard                  | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Saoussen Belhadj<br>Aissa      |
| EB-17 | Amazon Forest Structural Diversity Estimated<br>Using Field Inventory Plots, Airborne Lidar<br>and GEDI Spaceborne Lidar   | David Schimel                | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Ovidiu Csillik                 |
| EB-18 | Digging Into Soil Carbon from Space  | Anthony Bloom                | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Eren Bilir                     |
| EB-20 | InSAR Assisted Subsidence Monitoring in Southern Louisiana   | Cathleen Jones               | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Bhuvan Varugu                  |
| EB-22 | Tracking Wildfire Recovery Using Solar-<br>Induced Chlorophyll Fluorescence  | Jonathan Hobbs               | Earth Science: Water, Land,<br>Biome, and Carbon Cycle | Manju Johny                    |

| Solar System Science (main tent) |  |                           |   |                     |
|----------------------------------|--|---------------------------|---|---------------------|
| P-01                             | Simulating Subsurface Oceans of Icy Moons in the Lab and In Global Models  | Steven Vance              | Planetary Science and Life<br>Detection | Marshall Styczinski |
| P-02                             | Experimental Characterization of the<br>Pyridine: Acetylene Co-crystal and<br>Implications for Titan Surface Chemistry   | Robert Hodyss             | Planetary Science and Life<br>Detection | Ellen Czaplinski    |
| P-04                             | The Thermophysical Properties of Lunar Red<br>Spots from LRO Diviner Lunar Radiometer<br>Experiment Observations         | Catherine Elder           | Planetary Science and Life<br>Detection | Benjamin Byron      |
| P-05                             | Spiders On Mars, Europa, and In the<br>Laboratory  | Serina Diniega            | Planetary Science and Life<br>Detection | Lauren McKeown      |
| P-06                             | Cloudspotting On Mars: Exploring Mars's<br>Atmosphere Through Citizen Science  | Armin Kleinboehl          | Planetary Science and Life<br>Detection | Marek Slipski       |
| P-07                             | Experimental and Modelling Studies on the<br>Phase Behavior of Clathrate Hydrates in the<br>Presence of Ammonia          | Mathieu Choukroun         | Planetary Science and Life<br>Detection | Elodie Gloesener    |
| P-08                             | Subcritical Water Extraction for Releasing<br>Biosignatures from Microorganisms  | Maria Mora                | Planetary Science and Life<br>Detection | Zuzana Cieslarova   |
| P-09                             | Wave Analysis of Titan's Superrotation   | Leslie Tamppari           | Planetary Science and Life<br>Detection | Cecilia Leung       |
| P-10                             | Integrating Underwater OCEANS Analyzer into an EELS Robot  | Peter Willis              | Planetary Science and Life<br>Detection | Tomas Drevinskas    |
| P-11                             | Development of A Venus Cloud Chamber for<br>Aerobot Instrument Testing   | Michael Pauken            | Planetary Science and Life<br>Detection | Joseph Salazar      |
| P-13                             | Intentionally Applied Organisms for Regolith-<br>Based Agricultural Systems and Implications<br>for Planetary Protection | Kasthuri<br>Venkateswaran | Planetary Science and Life<br>Detection | Laura Fackrell      |
| P-14                             | Cryovolcanic Eruptions on Europa   | Samuel Howell             | Planetary Science and Life<br>Detection | Elodie Lesage       |

| P- | -15   | Linking Magnesite Microtextures and<br>Organics Preserved Therein to Mg-<br>Carbonates of Jezero Crater, Mars | Kathryn Stack Morgan | Planetary Science and Life<br>Detection         | Emily Cardarelli   |
|----|---|---|----------------------|---|--------------------|
| P- | -16   | Predicting Seismicity Using Fault Scaling<br>Relationships: From Mars to Venus                                | Suzanne Smrekar      | Planetary Science and Life<br>Detection         | Leah Sabbeth       |
| P- | -17   | Investigating the Color and Structure of the 2018-2022 Equatorial Zone Disturbance                            | Glenn Orton          | Planetary Science and Life<br>Detection         | Emma Dahl          |
| P- | -18   | Linked Magmatic-Tectonic Models of Corona<br>Formation on Venus   | Suzanne Smrekar      | Planetary Science and Life<br>Detection         | Joseph Schools     |
| Р- | -19   | Radiation-Formed Color Centers of Sodium<br>Chloride on Inner Solar System Bodies                             | Kevin Hand           | Planetary Science and Life<br>Detection         | Michael Bramble    |
| P- | -20   | Laboratory Investigation of Pluto's Surface<br>Organic Matter   | Murthy Gudipati      | Planetary Science and Life<br>Detection         | Lora Jovanovic     |
| P- | -21   | Helium Leak Rate Measurements of Flight-<br>Like Sample Tubes in Preparation for Mars<br>Sample Return        | Rosaly Lopes         | Planetary Science and Life<br>Detection         | Jeff Osterhout     |
| Р- | -22   | Life Detection on Icy Moons Using Flow<br>Cytometry   | James Lambert        | Planetary Science and Life<br>Detection         | Matthew Wallace    |
| P- | -23   | Surface-Subsurface Relationships of<br>Polygonal Terrain on Earth and Mars                                    | Matthew Golombek     | Planetary Science and Life<br>Detection         | Shannon Hibbard    |
|    | Detectors, Sensors, Instruments and Observatories (main tent) |   |                      |   |                    |
| T- | -01   | Optically Pumped Solid State Quantum<br>Magnetometers for Space Application                                   | Frank Maiwald        | Technology, Instrumentation, and Engineering    | Andreas Gottscholl |
| T- | -02   | Dual Frequency and Multi-Frequency Feed<br>Horns for Atmospheric Radars                                       | Darmindra Arumugam   | Technology, Instrumentation, and Engineering    | Srinivas Nagaraja  |
| T- | -03   | Thermal Evaporation Enhanced Atomic Layer<br>Deposition for FUV Mirror Coatings and<br>Bandpass Filters       | John Hennessy        | Technology, Instrumentation, and<br>Engineering | Robin Rodríguez    |

| T-04 | Fully-Polarimetric Millimeter-Wave<br>Spectrometers for Measurement of Earth's<br>Magnetic Field                      | Pekka Kangaslahti         | Technology, Instrumentation, and Engineering | Dristy Parveg     |
|------|---|---------------------------|--|-------------------|
| T-05 | The In-Air Coronagraph Testbed: An Agile<br>Technology Demonstrator of Advanced<br>Techniques for Exoearth Imaging    | Garreth Ruane             | Technology, Instrumentation, and Engineering | Axel Potier       |
| T-06 | Innovative Antennas for Satellite Telecom,<br>Radio Telescope and Radar   | Nacer Chahat              | Technology, Instrumentation, and Engineering | Gaurangi Gupta    |
| T-07 | Autonomous Mission Planning and Human-<br>Level Reasoning Using Semantic<br>Representation of Environments            | Aliakbar<br>Aghamohammadi | Technology, Instrumentation, and Engineering | Sangwoo Moon      |
| T-09 | MAHD - Mid-Air Helicopter Deployment  | Luis Phillipe Tosi        | Technology, Instrumentation, and Engineering | Marcel Veismann   |
| T-10 | Formation Sensing   | Amir Rahmani              | Technology, Instrumentation, and Engineering | Yashwanth Nakka   |
| T-12 | Pose Estimation for Rover-To-Lander Mars<br>Sample Tube Transfer  | Tu-Hoa Pham               | Technology, Instrumentation, and Engineering | Nikolaos Mavrakis |
| T-13 | Quantum-Based Distributed Estimation for<br>Multi-Agent Planetary Exploration   | Amir Rahmani              | Technology, Instrumentation, and Engineering | Vinod Gehlot      |
| T-14 | Large-Format High-Sensitivity Detector<br>Arrays for Far-Infrared Balloon-Borne and<br>Space Telescopes               | Charles Bradford          | Technology, Instrumentation, and Engineering | Reinier Janssen   |
| T-15 | Atomic Layer Deposition (ALD) of<br>Superconducting Films for Through-Silicon-<br>via Structures and Photon Detectors | Siamak Forouhar           | Technology, Instrumentation, and Engineering | John Femi-Oyetoro |
| T-16 | Integrated Photonic Devices for Quantum Sensors   | Siamak Forouhar           | Technology, Instrumentation, and Engineering | Hani Nejadriahi   |
| T-17 | Poster - A Novel X-Ray Imaging Detector<br>Concept  | Siamak Forouhar           | Technology, Instrumentation, and Engineering | Firat Yasar       |
| T-18 | Volumetric Metaoptics for Compact and<br>Low-Power Spectroscopy   | Goutam<br>Chattopadhyay   | Technology, Instrumentation, and Engineering | Conner Ballew     |

| T-19 | Learning From Demonstration: Autonomous<br>Navigation in Unstructured Environment | Aliakbar<br>Aghamohammadi | Technology, Instrumentation, and Engineering | Chung Chanyoung |
|------|---|---------------------------|--|-----------------|
| T-20 | End-To-End Off-Road Autonomous Driving<br>Without Real Data                       | Aliakbar<br>Aghamohammadi | Technology, Instrumentation, and Engineering | Sungoo Jung     |

| Lew Allen A    | Lew Allen Award  |  |  |  |  |
|----------------|--|--|--|--|--|
| RPC-001        | Development of 3D Printing Radio-Frequency/Microwave Components - Emmanuel Decrossas   |  |  |  |  |
| Advanced N     | Janufacturing Design and Materials   |  |  |  |  |
| RPC-002        | 4D Printing of Shape Memory Alloys for Solid-State Staged Deployment of Structures - Richard Otis  |  |  |  |  |
| RPC-003        | Submillimeter Antenna Technology Based on Printed Lattice Structures - Paul Goldsmith  |  |  |  |  |
| RPC-004        | Additive Manufacturing of Compliant Mechanisms for Deployable Structures - Christine Gebara  |  |  |  |  |
| RPC-005        | Additively Manufactured Rover Chassis with Integrated Thermal Control for Extreme Cold Environments - Benjamin Furst                                   |  |  |  |  |
| RPC-006        | Additive Design and Manufacturing of SmallSat Structures (ADAMSS) - Bryan McEnerney  |  |  |  |  |
| RPC-007        | Sulfuric Acid-Resistant Conductive Thermal Control White Paint for Venus Aerobot Payload Modules - Abdul-Majeed Azad                                   |  |  |  |  |
| RPC-008        | Laser Assisted Additive Manufacturing of Reaction Bonded Ceramics - Samad Firdosy  |  |  |  |  |
| Artificial Int | Artificial Intelligence and Machine Learning   |  |  |  |  |
| RPC-009        | Algorithm-based Fault Tolerance: Handling Bit-flips In Neural Network Computations on Snapdragon - Lini Mestar   |  |  |  |  |
| RPC-010        | Retrieval of Relevant Forest Structure Parameters from Fusion of Radar, LiDAR, Stereophotogrammetry, and Optical Remote Sensing Data -<br>Bryan Stiles |  |  |  |  |

| Astronomy | Astronomy and Fundamental Physics  |  |  |  |  |
|-----------|--|--|--|--|--|
| RPC-011   | Intensity Mapping Data Analysis - Tzu-Ching Chang  |  |  |  |  |
| RPC-012   | Mapping the Evolution of Exoplanets with Precision NIR Radial Velocities - Eric Mamajek  |  |  |  |  |
| RPC-013   | Development of a 2D Circulation Model for Rapid Exploration of Exoplanet Atmospheres - Tiffany Kataria   |  |  |  |  |
| RPC-014   | Optimizing Detection and Characterization of Exoplanets in High-Contrast Imaging Data - Graca Rocha  |  |  |  |  |
| RPC-015   | Astrochemistry with the Deep Space Network (DSN) - Dariusz Lis   |  |  |  |  |
| RPC-016   | Modeling Observations of Complex Organic Molecules in Dense Photodissociation Regions Under Various UV & X-ray Field Strengths - Karen Willacy   |  |  |  |  |
| RPC-017   | Retrieval and Removal of Telluric Spectral Variations from Ground-Based Exoplanet Transit Observations - Mark Swain  |  |  |  |  |
| RPC-018   | Generation of Self-Consistent Exoplanet Parameters Using a Smart Retrieval - Kyle Pearson  |  |  |  |  |
| RPC-019   | Validating Eclipse Mapping Techniques with Spitzer - Tiffany Kataria   |  |  |  |  |
| RPC-020   | Modelling Optimal Nulling Configurations for Characterizing Exoplanets Inside the Coronagraphic Regime - Eugene Serabyn  |  |  |  |  |
| RPC-021   | Close-in Exoplanet Characterization Using High-Dispersion & High-Contrast Nulling Coronagraphy - Bertrand Mennesson  |  |  |  |  |
| RPC-022   | The Sun as a Star: Exploring Stellar Activity with NASA's Flagship Doppler RV Instrument - Samuel Halverson  |  |  |  |  |
| RPC-023   | Precision Modeling of Telluric Absorption Features Through the Retrieval of Atmospheric Trace Gases and Spectroscopy Update Toward<br>Extreme Precision Radial Velocity (EPRV) Measurements - Keeyoon Sung |  |  |  |  |
| RPC-024   | Measuring Extreme Precision Radial Velocities (EPRVs) Using Deep Learning - Virisha Timmaraju  |  |  |  |  |

| RPC-025 | Echelle Grating Fabrication for Precision Radial Velocity Spectrographs - Daniel Wilson   |
|---------|---|
| RPC-026 | PARVI Commissioning and Science - Gautam Vasisht  |
| RPC-027 | Water Formation and Heritage Across Cosmic Time - Robert West   |
| RPC-028 | Compact, Low Power, Visible Band Frequency Combs for Extreme Precision Radial Velocity Measurements - Ryan Briggs   |
| RPC-029 | Quantifying Radiative Feedback in Regulating Galactic Star Formation With the [NIII] 57um Line - Jorge Pineda   |
| RPC-030 | High Temperature Superconducting MgB2 Heterodyne Receivers - John Pearson   |
| RPC-031 | Superconducting Detector Arrays for Imaging and Spectroscopy at Mid-Infrared Wavelengths - Peter Day  |
| RPC-032 | Breakthrough Science with Hybrid Radio/Optical DSN Tracking Antenna - Walid Majid   |
| RPC-033 | Laser and Optical System for Miniaturization and Space Qualification of Quantum Sensors - Siamak Forouhar   |
| RPC-034 | Terahertz Spectroscopic Investigations of Diatomic Transition Metal Hydrides in Support of Next Generation Space/Balloon Borne<br>Observatories - Deacon Nemchick |
| RPC-035 | Next-Generation Weak Lensing with Hyperspectral Imaging Surveys - Eric Huff   |
| RPC-036 | Spaceborne Quantum Sensors Based on Magnetically Insensitive Atomic Gases - David Aveline   |
| RPC-037 | Technology for Future Far-IR Missions: Demonstration of (Large-Format) Wideband Millimeter-Wave Spectroscopy with SuperSpec - Charles<br>Bradford                 |
| RPC-038 | Mass and Motion, Tension and Concordance: What Are Tensions in Current Data Telling Us About Dark Energy? - Eric Huff   |
| RPC-039 | Maximizing the Science Return from Cosmic Microwave Background Anisotropy Observations - Graca Rocha  |

| RPC-040   | Are Co-seismic Ionospheric Disturbances Alfvénic? - Xing Meng  |
|-----------|--|
| Communica | tion and Navigation  |
| RPC-041   | Tool for the Study of InterStellar Object Rendezvous Missions with Hybrid Propulsion Systems - Damon Landau                          |
| RPC-042   | End-to-End Autonomous Navigation via Optical Measurements at Primitive Bodies - Shyamkumar Bhaskaran                                 |
| RPC-043   | Optimizing the Design of Planetary Entry Probe and Lander Missions - Damon Landau  |
| RPC-044   | Simultaneous X- and Ka-Band Receiver for Astrometry and Navigation - Jacob Kooi  |
| RPC-045   | High Precision Thermally Stable Flexures for Large Deployable Antennas in SmallSats - Juan Mejia-Ariza                               |
| RPC-046   | Hybrid Wavefront Sensor for Daytime Optical Communication - Lewis Roberts  |
| RPC-047   | Robust Neural Network Decoders for Quantum Error Correction Systems - Dariush Divsalar   |
| RPC-048   | Ka/W-Band Deployable Modularized MetaLens Antennas for SmallSat Applications - Richard Hodges  |
| RPC-049   | On-chip Power-combining Networks with Integrated Harmonic Terminations for Highly Efficient, High-power SSPAs - Sushians Rahimizadeh |
| RPC-050   | Maximize Europa Clipper Data Return by Accurate Prediction of Atmospheric Noise Temperature Using Machine Learning - Longtao Wu      |
| RPC-051   | All Solid-State Transmitter (ASTRAM) for Solar System Radar - Mark Taylor  |
| RPC-052   | Next-Generation Deep Space Optical Communication Ground Systems - Matthew Shaw   |
| RPC-053   | Proving the Uplink Array for Radar Observations - Victor Vilnrotter  |

| Data Scienc  | Data Science   |  |  |  |
|--------------|--|--|--|--|
| RPC-054      | Machine-Learned Information-Theoretic Optimal Data Compression for Outer Solar System Missions - Matthew Thill |  |  |  |
| RPC-055      | Decision-Theoretic Uncertainty Quantification for Remote Sensing Inverse Problems - Margaret Johnson           |  |  |  |
| RPC-056      | Accelerating MCMC to Operational Speeds - Amy Braverman  |  |  |  |
| RPC-057      | Exploiting Spatio-Temporal Dependence in Multi-Footprint Remote Sensing Retrievals - Jonathan Hobbs            |  |  |  |
| RPC-058      | Uncertainty Quantification for Multi-Sensor Atmospheric Retrievals - Jonathan Hobbs                            |  |  |  |
| RPC-059      | Surface Reflectance Data Fusion for Current and Future JPL Missions - Margaret Johnson                         |  |  |  |
| RPC-060      | UQ-aware Machine Learning for Uncertainty Quantification - Amy Braverman                                       |  |  |  |
| RPC-061      | Multi-observation Imaging Spectroscopy - Michael Turmon  |  |  |  |
| Detectors, S | Sensors, Instruments and Observatories   |  |  |  |
| RPC-062      | Curved Hybrid Metalens - Anita Fisher  |  |  |  |
| RPC-063      | Metasurface Optics for Zernike Wavefront Sensing - James Wallace   |  |  |  |
| RPC-064      | Injection-locking of THz Quantum-cascade Laser Local Oscillators - Jonathan Kawamura                           |  |  |  |
| RPC-065      | Analog to digital converter for a phase meter - Pekka Kangaslahti  |  |  |  |
| RPC-066      | TeraCube: A Cubesat Terahertz Spectrometer for Earth and Planetary Remote Sensing - Jose Vicente Siles Perez   |  |  |  |

| RPC-067 | THz quantum-cascade laser sources for space science - Boris Karasik  |
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| RPC-068 | 3D-HIFI: "A 3x On-Chip Diplexed Heterodyne Instrument for the Far-Infrared" - Jose Vicente Siles Perez                             |
| RPC-069 | Kinetic Inductance Detector Array Development for the Balloon Experiment for Galactic INfrared Science (BEGINS) - Peter Day        |
| RPC-070 | Hierarchical Antennas for mm-wave Spectroscopy on a Chip - Andrew Beyer  |
| RPC-071 | Planar Multi-Pixel Heterodyne Array Architecture Suitable for Large Arrays - Goutam Chattopadhyay                                  |
| RPC-072 | Large Array of Single Photon Detecting Quantum Capacitance Detectors (QCDs) with Low Frequency Readout - Pierre Echternach         |
| RPC-073 | Investigating Alternative Molecular Surveying Techniques with OASIS (Organic Analysis System utilizing Ion Sprays) - Amy Hofmann   |
| RPC-074 | The First Demonstration of Passive Sounding on Mars with Existing SHARAD Data - Andrew Romero-Wolf                                 |
| RPC-075 | Development of Silver-based Plasmonic On-chip Filters - Alexander Soibel   |
| RPC-076 | Octave Tunable On-chip Optical Parametric Oscillator for Infrared Laser Spectroscopy - Luis Hernandez                              |
| RPC-077 | Novel Low Loss Dielectric Development for Superconducting Microwave Devices - Chang Sub Kim  |
| RPC-078 | Digitally Tunable Split Ring Resonator Technology for Quantum Rydberg Radar - Darmindra Arumugam                                   |
| RPC-079 | Classification of Bacterial Life Using Spectral Data from a Multiwavelength Digital Holographic Microscope - Christian Lindensmith |
| RPC-080 | Miniature Combination Mössbauer And X-ray Fluorescence Spectrometer for Planetary Geochemistry - Valerie Scott Kristof             |
| RPC-081 | Developing Quanta Image Sensor for UV Photon Counting Detectors in Space Applications - Shouleh Nikzad                             |

| RPC-082             | Volumetric Silicon Metaoptics for Highly Compact and Low-Power Terahertz Spectroscopy - Goutam Chattopadhyay                  |  |
|---------------------|---|--|
| RPC-083             | Novel Method for Analysis of Fatty Acids by Capillary Electrophoresis Using Non-polar Solvents - Maria Mora                   |  |
| RPC-084             | SCHAN: Analysis of biomolecules from resilient microorganisms using supercritical CO2 and subcritical H2O - Bryana Henderson  |  |
| RPC-085             | Cis-lunar Space Debris Radar and Advanced Signal Processing for GSSR - Clement Lee  |  |
| RPC-086             | Cubesat Bistatic Radar for Small Body Tomography - Mark Haynes  |  |
| RPC-087             | Modeling and Analysis of Process Qualification for UV and UV/Optical Silicon Detector Arrays - Michael Hoenk                  |  |
| RPC-088             | Ultra-high Flux Atom Source (UFAS) for Precision Atom Interferometric Sensing - Sheng-Wey Chiow                               |  |
| RPC-089             | TRL Advancement and Qualification for UV and UV/Optical Photon Counting & Scientific Silicon Detector Arrays - Shouleh Nikzad |  |
| Distributed Systems |   |  |
| RPC-090             | Multi-Spacecraft Architectures for Long Period Comet and Interstellar Object Exploration - Julie Castillo                     |  |
| RPC-091             | Robust Data-driven Vision-based multi-Spacecraft (RDVS) Guidance and Control - Amir Rahmani                                   |  |
| RPC-092             | Distributed Element Beamformer Radar for Ice and Subsurface Sounding - Robert Beauchamp                                       |  |
| RPC-093             | Maximizing Simultaneous Multi-Angle Cloud Tomography Observations using Cubesats and On-board Scheduling - Amir Rahmani       |  |
| Earth Science       |   |  |
| RPC-094             | Cost-effective Real-Time Sensing of Speciated Fine Particulate Matter Air Pollution - David Diner                             |  |

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