

#	Title	First Author	First Author Org.
Track 1: Radioisotope Power Systems			
1001	241Am Production for Use in Radioisotope Power Systems	M.J. Sarsfield	National Nuclear Laboratory
1003	The Multi-mission Radioisotope Thermo-electric Generator for the Mars Science Laboratory: Lessons Learned that may be Applicable for the Mars 2020 Mission	S.G. Johnson	Idaho National Laboratory
1004	Plutonium-238 Supply Project: Target Design and Scale-up	R.M. Wham	Oak Ridge National Laboratory
1005	HIGH-POWER LASER EXPERIMENTS ON ROTATING SMALL-SCALE GPHS MODULES	D.P. Kramer	University of Dayton
1006	NASA's Radioisotope Power Systems Program – A 3 Year Status Assessment	J.A. Hamley	NASA Glenn Research Center
1007	GETTING TO AN ENHANCED MMRTG	D.F. Woerner	Jet Propulsion Laboratory
1008	skutterudites: how do they fair against state-of-practice thermoelectric materials used in radioisotope thermoelectric generators?	T. Caillat	Jet Propulsion Laboratory
1009	SKUTTERUDITE-BASED ADVANCED THERMOELECTRIC COUPLES for integration into an enhanced MMRTG	T. Caillat	Jet Propulsion Laboratory
1010	Advanced Stirling Radioisotope Generator DESIGN Overview and Future Plans.	J. Chan	Lockheed Martin Space Systems Company
1011	High Efficiency Rare-Earth-Based Thermoelectric Materials for Space Power Generation Applications.	S.K. Bux	Jet Propulsion Laboratory
1012	A Status Update on the Production of Cerium Oxide Microspheres for Space Nuclear Power Applications	J.A. Katalenich	University of Michigan
1013	Power System Overview for the Small RPS Centaur Flyby and the Mars Polar Hard Lander NASA COMPASS Studies	R.L. Cataldo	NASA Glenn Research Center
1014	SPACE NUCLEAR POWER SYSTEMS BASED ON AMERICIUM-241: ENABLING EUROPEAN SPACE EXPLORATION MISSIONS	R.M. Ambrosi	University of Leicester
1015	The enhanced MMRTG – eMMRTG – Boosting MMRTG Power Output	T. Hammel	Teledyne Energy Systems, INC.
1016	DESIGN OF THE SECOND ADVANCED STIRLING RADIOISOTOPE GENERATOR ENGINEERING UNIT.	S.M. Oriti	NASA Glenn Research Center
1017	Radioisotope Power Systems Program Technology Advancement Project Present and Future	T.F. O'Malley	NASA Glenn Research Center
1018	CONTINUING DEVELOPMENT OF THE ADVANCED STIRLING CONVERTOR (ASC) FOR NASA RPS	W.A. Wong	NASA Glenn Research Center
1019	Potential Superionic Conductivity in the Actinide Dioxides	C.E. Whiting	University of Dayton
1020	Advanced Thermoelectric Couples – Current Status	S.A. Firdosy	Jet Propulsion Laboratory
1021	NASA GRC Support of the Flight ASRG Project	S.D. Wilson	NASA Glenn Research Center

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1022	TEST PROGRAM FOR STIRLING RADIOISOTOPE GENERATOR HARDWARE AT NASA GLENN RESEARCH CENTER	E.J. Lewandowski	NASA Glenn Research Center
1023	Applying Current Crew Survivability Efforts to Improve Safety of Radioisotope Payloads During Launch.	M. E. Bangham	Bangham Engineering, Inc.
1024	VERSATILE STIRLING TECHNOLOGY FOR RADIOISOTOPE AND FISSION POWER SYSTEMS	L. S. Mason	NASA Glenn Research Center
1025	RADIOISOTOPE-DRIVEN DUAL-MODE PROPULSION SYSTEM FOR CUBESAT-SCALE PAYLOADS TO THE OUTER PLANETS.	N. Jerred	Center for Space Nuclear Research
1026	SUMMARY OF ADVANCED STIRLING CONVERTOR (ASC) TESTING AT NASA GLENN RESEARCH CENTER	N.A. Schifer	NASA Glenn Research Center
1027	MMRTG – Power for the Mars Science Laboratory	B. Otting	Aerojet Rocketdyne

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Track 2: Fission Power Systems			
2001	Benchmark Evaluation of Distribution Measurements for a Beryllium-Reflected Space Reactor Mockup.	M.A. Marshall	Center for Space Nuclear Research
2003	TURBO-BRAYTON POWER CONVERTER FOR SPACEFLIGHT APPLICATIONS.	J.J. Breedlove	Creare Incorporated
2004	DEVELOPMENT OF A 12 kWe STIRLING POWER CONVERSION UNIT FOR FISSION POWER SYSTEMS – STATUS UPDATE.	S.M. Geng	NASA Glenn Research Center
2005	Manufacturing Techniques for High Density Solid Core Space Reactors	J. Creasy	Y-12 National Security Complex
2006	Fuel Selection and Development for Small Fission Power System	J. Creasy	Y-12 National Security Complex
2007	Notional Design of the Kilopower Space Reactor	D. Poston	Los Alamos National Laboratory
2009	HIGH-TEMPERATURE CARBON FIBER RADIATOR FOR NUCLEAR ELECTRIC POWER AND PROPULSION: PROJECT OVERVIEW AND UPDATE	B.N. Tomboulia	University of Massachusetts
2010	SPECIFIC MASS REQUIREMENTS FOR MANNED NUCLEAR ELECTRIC PROPULSION MISSIONS TO MARS	C.G. Morrison	Rensselaer Polytechnic Institute
2011	Track II - A NEW REACTOR POWER SYSTEM CONCEPT FOR MANNED LUNAR BASE APPLICATION	H. Gu	China Institute of Atomic Energy
2013	STATUS UPDATE FOR THE FISSION SURFACE POWER TECHNOLOGY DEMONSTRATION UNIT	M.H. Briggs	NASA Glenn Research Center
2014	Low Cost Radiator for Fission Power Thermal Control	T. Maxwell	Advanced Cooling Technologies, Inc.
2015	Development of NASA's Small Fission Power System for Science and Human Exploration	M.A. Gibson	NASA Glenn Research Center
2016	The Use of the Nevada National Security Site As a Reactor Test Center	P.R. McClure	Los Alamos National Laboratory
2017	MEGAHIT: Update on the advanced propulsion roadmap for HORIZON2020	F. Masson	Centre National d'Etudes Spatiales

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Track 3: Nuclear Thermal Propulsion			
3001	Mission Characteristics of Small NTP with LOX-augmentation	C.R. Joyner	Aerojet Rocketdyne
3002	Nuclear Thermal Rocket Element Environmental Simulator (NTREES) Upgrade Activities – Track 3	W.J. Emrich	NASA Marshall Space Flight Center
3003	Preliminary Design of a NERVA TYPE Carbide LEU-NTR	P. Venneri	Korea Advanced Institute of Science and Technology
3004	DEVELOPMENT STATUS OF A CVD SYSTEM TO DEPOSIT TUNGSTEN ONTO UO2 POWDER VIA THE WC16 PROCESS	O.R. Mireles	NASA Marshall Space Flight Center
3005	DESIGN EVOLUTION OF HOT ISOSTATIC PRESS CANS FOR NTP CERMET FUEL FABRICATION	O.R. Mireles	NASA Marshall Space Flight Center
3006	Development of advanced coatings for NERVA-type fuel elements	S.V. Raj	NASA Glenn Research Center
3007	Nuclear Cryogenic Propulsion Stage Affordable Development Strategy	G.E. Doughty	NASA Marshall Space Flight Center
3008	HISTORIC SOLID CORE NUCLEAR THERMAL PROPULSION FUEL FORMS: FUNCTIONS AND LIMITATIONS	K. Benensky	The Pennsylvania State University
3009	Nuclear Thermal Rocket (NTR) Development Risk Communication	T. Kim	NASA Marshall Space Flight Center
3010	INDUCTION HEATING MODEL OF CERMET FUEL ELEMENT ENVIRONMENTAL TEST (CFEET)	C.F. Gomez	NASA Marshall Space Flight Center
3011	United States Nuclear Rocket Company (USNRC).	L.A. Hardin	Nuclear Regulatory Commission
3012	A Research Reactor Concept to Support NTP Development	M.J. Eades	The Ohio State University
3013	Historical Material Property Data for Cermet and Graphite-Based NTP Fuels	M.E.M. Stewart	NASA Glenn Research Center
3014	AFFORDABLE DEVELOPMENT AND OPTIMIZATION OF CERMET FUELS FOR NTP GROUND TESTING	R. R. Hickman	NASA Marshall Space Flight Center
3015	NTR Performance Parameters for Science, Cargo Delivery and Crewed Exploration Missions	S. K. Borowski	NASA Glenn Research Center
3016	Driver Fuel Design for a Cermet Nuclear Thermal Rocket	D. Poston	Los Alamos National Laboratory
3017	Fuel Zoning of a NTP Concepts with Variable Channel Diameters	D. Poston	Los Alamos National Laboratory
3018	Nuclear Thermal Propulsion Ground Test History	H. Gerrish	NASA Marshall Space Flight Center
3019	Current Ground Test Options for Nuclear Thermal Propulsion	H. Gerrish	NASA Marshall Space Flight Center
3020	Neutronic Analysis of a Tungsten CERMET LEU-NTR	C. G. Rosaire IV	Texas A&M University

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3021	Fabrication of Tungsten- Uranium Dioxide (W-UO2) CERMET Fuel Materials for Nuclear Thermal Propulsion	J. W. Broadway	NASA Marshall Space Flight Center
3022	RISK ASSESSMENT FOR THE GROUND LAUNCH OF A SINGLE STAGE TO ORBIT NUCLEAR THERMAL ROCKET	J.C. King	Colorado School of Mines
3023	Compact Fuel Element Environment Tester 2.0.	D. P. Cavender	NASA Marshall Space Flight Center
3024	The Nuclear Cryogenic Propulsion Stage	M.G. Houts	NASA Marshall Space Flight Center
3025	Design of a Representative Tungsten CERMET LEU-NTR	P. Venneri	Korea Advanced Institute of Science and Technology
3026	High Specific Impulse Optimization of a Tungsten CERMET LEU-NTR	P. Husemeyer	University of Cambridge
3027	Nuclear Cryogenic Propulsion Stage Conceptual Design & Mission Analysis	L.D. Kos	NASA Marshall Space Flight Center
3028	Development of Modeling Approaches for Nuclear Thermal Propulsion Test Facilities	D. Jones	NASA Stennis Space Center
3029	Accomplishments and Lessons-Learned from the Space Nuclear Thermal Propulsion (SNTP) Program	R.X. Lenard	Little Prairie Services
3030	Fabrication of dUO2-W Cermet Fuel Elements via Spark Plasma Sintering: Advances & Progress Made	R.C. O'Brien	Center for Space Nuclear Research
3031	Production of dUO2 fuel kernels for the NASA NCPS Program Cermet Fuels Development using an Ammonium Alginate process	R.C. O'Brien	Center for Space Nuclear Research
3033	Design of an Evolvable Nuclear Thermal Rocket Ferry for Geosynchronous Transfer	R.T. Beeson	Center for Space Nuclear Research
3034	Business Case for a Commercially Developed Nuclear Thermal Rocket	R.T. Beeson	Center for Space Nuclear Research
3035	Overview of Nuclear Thermal Propulsion Engine Modeling and Design Activities at Oak Ridge National Laboratory.	B.G. Schnitzler	Oak Ridge National Laboratory
3036	Nuclear thermal Propulsion development efforts within the department of energy.	L. Qualls	Oak Ridge National Laboratory
3037	High Performance Computing Simulations of Radiation Shielding with GEANT4, Simulating the Apollo Missions and Simulating New Shielding Materials.	M.L. Lund	University of Utah

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Track 4: Advanced Systems			
4003	Preliminary Analysis: Am-241 RHU/TEG Electric Power Source for Nanosatellites	G.A. Robertson	NASA Marshall Space Flight Center
4005	Opening the Solar System: An Advanced Nuclear Spacecraft for Human Exploration	R.O. Werka	NASA Marshall Space Flight Center
4006	Analytic Model to Estimate Thermonuclear Neutron Yield in Z-Pinches using the Magnetic Noh Problem.	R.A. Agnew	The University of Alabama in Huntsville
4008	PROGRESS IN THE DEVELOPMENT OF A LITHIUM DIODE FOR THE CHARGER-1 PULSE POWER FACILITY FOR FUSION SPACE PROPULSION RESEARCH	W.T. Rogerson, Jr.	Y-12 National Security Complex
4009	The Fusion Driven Rocket: Nuclear Propulsion through Direct Conversion of Fusion Energy	J. Slough	University of Washington
4011	PROGRESS ON THE PULSED FISSION-FUSION (PuFF) PROPULSION CONCEPT	R.B. Adams	NASA Marshall Space Flight Center
4012	LOW POWER OPERATIONS AT THE OUTER PLANETS: TROJAN ASTEROID MISSION ENABLED THROUGH RADIOISOTOPE-THERMAL PHOTOVOLTAIC POWER SUPPLIES	A. Ghosh	University of Illinois at Urbana-Champaign
4014	THE DUSTY PLASMA FISSION FRAGMENT ROCKET ENGINE: DESIGN CONSTRAINTS AND PERFORMANCE	R.B. Sheldon	Grassmere Dynamics
4015	MARS SAMPLE RETURN AND FLIGHT TEST OF A SMALL BIMODAL NUCLEAR ROCKET AND ISRU PLANT	J.F. George	NASA Johnson Space Center
4016	The Non-equilibrium fusion plasma research center and development of a Fusion Augmented Thruster	M.Derzon	Sandia National Laboratory
4018	Optical Nuclear Electric Propulsion	V. Patel	Texas A&M University