



	Material Technology Cathodes, Gimbals	Commercial Propulsion Needs	Hall Thrusters 1	Hall Thrusters 2
	HS6	SR4	SR6	SR2
	1st Chair I. Mikellides 2nd Chair X. Chen	1st Chair J. Trescott 2nd Chair K. Dannenmayer	1st Chair C. Boniface 2nd Chair I. Funaki	1st Chair R. Heidemann 2nd Chair T. Hallouin
09.00	A249 Comparison of transient behavior in a 20 A hollow cathode in a 9 kW Hall thruster and a stand-alone configuration <i>M. Georgin</i>	A592 The Ariane Group Electric Propulsion Program 2019-2020 <i>H. Leiter</i>	A793 Life Estimation of Hall Thrusters using Multi Spectral Imaging <i>H. Gole</i>	A487 Oscillation analysis in Hall thrusters with 2D (axial-azimuthal) Particle-In-Cell simulations <i>T. Charoy</i>
09.15	A430 Mechanism Analysis of Cathode Low Frequency Oscillation <i>Z. Ning</i>	A926 Overview of Busek EP Thrusters <i>V. Hruby</i>	A408 Terahertz Time-Domain Spectroscopy as an Electric Propulsion Plasma Diagnostic <i>N. Brown</i>	A501 Enhancing Hall Effect Thruster Simulations with Deep Recurrent Networks <i>P. Shaw</i>
09.30	A604 Applicability of electride materials for hollow cathodes <i>M. Reitemeyer</i>	A600 Electric Propulsion Developments at Rafael in 2019 <i>D. Lev</i>	A861 Application of Helium Line Intensity Ratio Spectroscopy to Xenon plasma in Penning discharge <i>H. Sekine</i>	A732 Data-Driven Modeling for Nonlinear Dynamics of Physical Phenomena in Hall Effect Thrusters <i>K. Hara</i>
09.45	A929 Additively Manufactured Hollow Cathode Keepers with Integral Radiation Shielding <i>M. S. McDonald</i>	×	A516 Hall Thruster Plume Measurements of Time Resolved Ion Energy <i>M. Baird</i>	A579 Analysis of the plasma discharge in a Hall thruster via a hybrid 2D code <i>P. Fajardo</i>
10.00	A845 Total Sputter Yield Characterization of Various Spacecraft Materials <i>J. A. Young</i>	×	A308 Electron cross-field transport mechanism observed under the azimuthally inhomogeneous neutral supply in a Hall thruster <i>J. Bak</i>	A613 Boundary conditions for a two-dimensional direct kinetic simulation of a Hall thruster <i>A. Raisanen</i>
10.15	A155 Onset criteria for the plume mode oscillation in hollow cathodes <i>M. Georgin</i>	×	A449 On-board Plasma Plume Diagnostics for ETS-9 All-electric Satellite <i>K. Kinefuchi</i>	A619 Operation of a Low Power Hall Thruster with a Shielded Magnetically Configuration <i>L. Garrigues</i>
10.30	A667 The neutral gas properties in orifice hollow cathode before its ignition <i>Y. Jia</i>	×	A252 Significant ion acceleration of Xe ions outside the discharge channel in cylindrical Hall thruster plasmas observed by laser induced fluorescence <i>G. Doh</i>	A642 Influence of Magnetic Field Strength on Narrow Channel Hall Thruster Discharge Operating at Very Low Power <i>I. Kronhaus</i>
10.45	×	×	A246 Hall Thruster Near-Field Plume Characterization Through Optical Emission Spectroscopy <i>M. Nakles</i>	A720 Numerical studies of the ExB electron drift instability in Hall thrusters <i>F. Taccogna</i>

	Ion Thrusters	MPD Thrusters	Innovative / Advanced Propulsion Concepts	Thruster Concepts
	HS5	SR3	HS3	HS2
	1st Chair S. Gabriel 2nd Chair C. Altmann	1st Chair G. Herdrich 2nd Chair A. Kitaeva	1st Chair M. Merino 2nd Chair –	1st Chair S. Peterschmitt 2nd Chair M. Mooney
	A287 Non-intrusive measurements of microwave ion thruster by two photon absorption LIF and laser Thomson scattering <i>R. Tsukizaki</i>	A493 Magnetic Field and Current Density Probe for Steady State AF-MPD Thrusters <i>A. Behnke</i>	A164 Evaluation of anomalous resistivity in a low power magnetic nozzle <i>S. Hepner</i>	A188 Comparison of waveguide-coupled and coaxial-coupled ECR magnetic-nozzle thruster using a thrust balance <i>S. Peterschmitt</i>
	A337 Estimation of Erosion Rate for Surface Material on HAYABUSA2 by Measurement of Backflow Ions from 10-cm-class Ion Thruster <i>T. Muranaka</i>	A551 Simultaneous Measurement of Cathode Surface Temperature Distribution and Plasma Spatial Distribution in Self-Field MPD Thruster <i>S. Tauchi</i>	A199 Experimental Validation and Performance Measurements of an ECR Thruster Operating on Multiple Propellants <i>R. Moloney</i>	A219 Optimization of a Low Power ECR Thruster Using Pulsed Power and Frequency Mixing Techniques <i>B. Wachs</i>
	A348 A novel optical line-ratio method for measuring the electron parameters in the discharge chamber of xenon ion thrusters <i>X. Zhu</i>	A310 The Experimental Performances of the 100kW MPD Thruster with Applied Magnetic Field <i>Y. Cong</i>	A261 The SpaceDrive Project – EMDrive Thrust Measurements and Analysis <i>M. Tajmar</i>	A267 Development of the hall effect hollow cathode thruster <i>L. Chenguang</i>
	A396 Optical plasma diagnostics for radio-frequency ion thrusters <i>B. Nauschütt</i>	A759 Characterization and Improvement of Thrust Balance for High Power Applied Field MPD Thrusters <i>G. Herdrich</i>	A262 The SpaceDrive Project – Overview of Revolutionary Propulsion Efforts at TU Dresden <i>M. Tajmar</i>	A363 Diagnostics and testing facilities for ionic liquid electrospray thrusters at the Air Force Research Laboratory <i>D. Eckhardt</i>
	A503 Two-Photon Laser-Induced Fluorescence Diagnostics of a Radiofrequency Ion Thruster: Measurements in Xenon and Krypton <i>C. Eichhorn</i>	A314 Cathode Ablation Performance of Applied-Field Magnetoplasma-dynamic <i>G. Wang</i>	A271 Plasma Jet Pack (PJP) Technology <i>A. Blanchet</i>	A417 REGULUS: Iodine Fed Plasma Propulsion System for Small Satellites <i>M. Magarotto</i>
	A167 Near Field Probe Measurements in the Plume of a NEXT Ion Thruster <i>N. Arthur</i>	A585 Current Advances in Optimization of Operative Regimes of Steady State Applied Field MPD Thrusters <i>A. Boxberger</i>	A290 Characterisation of a Rotational Thrust Balance for Propellantless Propulsion Concepts Utilizing Magnetic Levitation with Superconductors <i>O. Neunzig</i>	A498 XMET: Design and early testing of a xenon microwave electrothermal thruster <i>D. Staab</i>
	A738 Determination of the Beam Divergence of a Gridded Ion Thruster Using the AEPD Platform <i>F. Scholze</i>	A401 Anode Power Deposition in an AF-MPDT with Two Unique Magnetic Field <i>P. Wu</i>	A292 Influence of cathode grid dimension on discharge characteristics of IEC thruster <i>Y.-A. Chan</i>	A638 Analytical plasma modelling and design upgrade for an ECR thruster operating on water and ammonia propellants <i>E.R. Azevedo</i>
	A777 Planar probe array for bidimensional mapping of the ion flux profile of a miniaturized ion thruster <i>L. Habl</i>	A588 Experimental study of the discharge characteristic in AF-MPDT ignition <i>Y. Wang</i>	A333 High-Specific-Impulse Operation in Diverging Magnetic Field Electrostatic Thrusters with Argon Propellant <i>D. Ichihara</i>	A875 H2020 MINOTOR: Magnetic Nozzle Electron Cyclotron Resonance Thruster <i>D. Packan</i>