# IEPC<sup>19</sup> Programme

	BepiColombo	Commercial Propulsion Needs	Hall Thrusters 1	Hall Thrusters 2
	HS6	SR4	SR6	SR2
15.30	A606 BepiColombo – The Mercury Transfer Module H. Gray	×	A384 Incoherent Thomson scattering investigations of a low-power Hall thruster in standard and magnetically-shielded configu- rations <i>B. Vincent</i>	A718 Investigation of cross-field electron transport in a 100-W class Hall Thruster using a full particle-in-cell simulation S. Cho
15.45	A494 BepiColombo – MTM and MEPS Integration and Verification <i>K. Kempkens</i>	×	A617 Characterization and perfor- mance measurements of 40 W-class and 100 W-class Hall thrusters <i>T. Hallouin</i>	A582 Experimental characterization and modeling of ID-HALL, a double-stage Hall thruster with an inductive ionization stage Á. Martín Ortega
16.00	A586 BepiColombo - Solar Electric Propulsion System Test and Qualification Approach S. Clark	×	A528 Development Efforts on a Laser Thomson Scattering Diagnostic for Electric Propulsion Applica- tions <i>T. Matlock</i>	A447 Performance Evaluation of a 100-W Class Hall Thruster H. Watanabe
16.15	A615 BepiColombo – MEPS commissioning activities and T6 ion thruster performance during early mission operations <i>R. Lewis</i>	×	A598 Experimental Study on the Influence of Magnetic Field on the Performance of Low-power Hall Thrusters X. Yi	A816 Scaling of spoke rotation fre- quency within an ExB Discharge A. Powis
16.30	×	×	A298 Pole Erosion Measurements for the Development Model of the Magnetically Shielded Miniature Hall Thruster (MaSMi-DM) <i>R.Lobbia</i>	A352 Neutral gas instabilities in Hall thrusters, Part I: Measurements <i>E. Dale</i>
16.45	×	×	×	A432 Driving Low Frequency Oscilla- tions in Hall Thruster <i>Y. Raitses</i>

Ion Thrusters	MPD Thrusters SR3 A542 Applied-Field MPD Thruster with High Current Heater-less Hollow Cathode J. Yamasaki	
HS5		
A239 Atmospheric Ramjet Thrust Unit on the Base of High-frequency Ion Thruster V. Kozhevnikov		
A240 Characteristics of Radio-Fre- quency Ion Thruster with an Additional Magnetic Field in the Ionization Area V. Kozhevnikov	A872 Development of a 10-30 kW Augmented Field MPD Thruster at SITAEL A. Kitaeva	
A339 Ring Cusp Ion Thruster IT-200PM A. Lovtsov	A450 Performance of Applied Field MPD Thruster with Various Propellants S. Ide	
A574 Test Campaign on the novel Variable Isp Radio Frequency Mini Ion Engine <i>M. Smirnova</i>	A870 Plasma Plume Characteristics of Cluster Operation of Self-Field Magnetoplasmadynamic Thruster Y. Murayama	
A797 Exprimental studies on the effect of the magnetic field and the electrical potential inside the water ion thruster Y. Ataka	A329 Research on the 500kW Class Superconducting Strong Magnetic Field High Power Magnetoplasmadynamic Thruster Technology <i>C. Zhou</i>	
A806 A Nouvelle Neutralization Concept for RIT-µX Miniaturized Radio Frequency Ion Thruster Systems H. Leiter	A801 Business Cases and System Architecture for Superconduc- tor-based Applied Field Magneto Plasma Dynamic Thrusters M. La Rosa Betancourt	L L V t n

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# Thursday 19

# Innovative / Advanced Propulsion Concepts

## IS3

# 4552

Interaction of Ultraviolet Light-emitting Diodes and Solid Polymers for Micropropulsion Applications I. Horisawa

## A605

Hybrid Electric Propulsion System based on Water lectrolysis I. Harmansa

## A621

Advanced Cusp Field Thruster with a 3D-printed discharge channel - Performance with lodine and Xenon M. Vaupel

#### 4692

13kW Advanced Electric Propulsion Flight System Development and Qualification .Jackson

# A712

The SpaceDrive Project -Progress in the Investigation of the Mach-Effect-Thruster Experiment M. Monette

#### A774

Development of a deployable vacuum arc thruster system for the post-mission disposal of micro/nano satellites M. Kim

## Thruster Concepts

# HS2

# A594

Indirect electrothermal acceleration of a cold gas jet through interaction of an arcjet exhaust flow for space propulsion applications Y. Arai

# A610

Informing the design of pure-ion electrospray thrusters via simulation of the leaky-dielectric model with charge evaporation X. Gallud Cidoncha

#### A643

Physics and performance of the Alternative Low Power Hybrid Ion Engine (ALPHIE) for space propulsion J. González

## A775

Azimuthal Induced Current Formation and Ion Acceleration in an Inductive Radiofrequency Plasma Thruster H. Sekine

#### A829

Two-dimensional Full Particle-In-Cell Simulation of Magnetic Sails in Formation Flight A. Wada

#### A903

An experimental revisit of plasma phenomena on Helicon Plasma Thrusters J. Navarro Cavalle

Thursday