



EPIC WORKSHOP 2022 PROGRAMME

ORGANIZED BY



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 www.epic-src.eu

 EPIC h2020

 @EPICH2020

#space #electricpropulsionisEPIC



EPIC WORKSHOP

DETAILED PROGRAMME

04.04.

MONDAY

WELCOME SPEECHES

11:30 - **Andrés Lüdeke, German Space Agency**
Technical Introduction to the Hybrid Event Platform

11:55 - **José Gonzalez Del Amo, European Space Agency**
EPIC Workshop Introduction

12:00 - **Daniel Nölke, Directorate-General for Defence Industry and Space**
DG DEFIS Welcome Speech

12:15 - **Romain Lezier, Directorate-General for Defence Industry and Space**
DG DEFIS Welcome Speech

12:30 - **Florence Beroud, European Health and Digital Executive Agency**
HaDEA Welcome Speech

12:45 - **Rene Kleeßen, German Space Agency**
DLR Welcome Speech

13:00 - **Marc Hofmann, Federal Ministry for Economic Affairs and Climate Action**
BMWK Welcome Speech

13:15 - **Jamila Mansouri, European Space Agency**
ESA Welcome Speech

13:30 - LUNCH BREAK

14:30 - **Orson Sutherland, European Space Agency**
BepiColombo & Mars Sample Return Vehicle

15:00 - **Georg Herdrich, Institute for Space Systems Stuttgart**
Human Spaceflight, Deep Space Gateway & Colonization and the roll of High-Electric Propulsion

15:30 - **Frank Jansen, DLR Bremen**
The cluster of high-performance electric propulsion systems in the astronaut MARS/EUROPA flagship

16:00 - **Peter Holtmann, THALES Germany**
Incremental Line – EPIC Project HEMPT-NG2

16:30 - COFFEE BREAK

16:45 - **Cyril Dietz, Ariane Group**
Incremental Line - EPIC Project GIESEPP-MP

17:15 - **Vanessa Vial, Safran**
Incremental Line – EPIC Project CHEOPS MP

17:45 - **Tommaso Misuri, SITAEL**
Incremental Line – EPIC Project ASPIRE

18:30 - RECEPTION DINNER



EPIC WORKSHOP

DETAILED PROGRAMME

05.04.

TUESDAY

ROUNDTABLE

09:00 - **José Gonzalez Del Amo, European Space Agency**
EPIC Workshop Welcome of the day

09:15 - **Walter Ballheimer, Reflex Aerospace**
UN:IO: Reflex Aerospace Satellite Constellation

09:30 - **Panel Discussion: „Low Power Electric Propulsion Systems“**

Chairwoman:

-Lisa Martin Perez, German Space Agency

Panelists:

-Walter Ballheimer, Reflex Aerospace

-Marcel Berger, Advanced Space Technologies

-Vanessa Vial, Safran

-Mercedes Ruiz, SENER

10:15 - **Peter Holtmann, THALES Germany**
Incremental Line – EPIC Project HEMPT-NG2

10:45 - COFFEE BREAK

11:00 - **Cyril Dietz, Ariane Group**
Incremental Line - EPIC Project GIESEPP-MP

11:30 - **Vanessa Vial, Safran**
Incremental Line – EPIC Project CHEOPS LP

12:00 - **Tommaso Misuri, SITAEL**
Disruptive Line – EPIC Project AETHER

12:45 - **Mercedes Ruiz, SENER**
Disruptive Line – EPIC Project HIPATIA

13:30 - LUNCH BREAK

ROUNDTABLE

14:30 - **Panel Discussion: „Very Low Power Electric Propulsion Systems“**

Chairwoman:

-Davina Di Cara, European Space Agency

Panelists:

-Alexander Reissner, Enpulsion

-Antonio Gurciullo, Exotrail

-Giulio Coral, ThrustMe

-Martin Tajmar, TU Dresden

-Franz Georg Hey, Airbus

15:30 - COFFEE BREAK

15:45 - **Franz Georg Hey, Airbus**
Disruptive Line – EPIC Project iFACT

16:30 - **Antoine Blanchet, COMAT**
Disruptive Line – EPIC Project PJP

17:15 - **Angel Post, Advanced Thermal Devices**
Disruptive Line – EPIC Project NEMESIS

18:00 - BREWERY DINNER



EPIC WORKSHOP

DETAILED PROGRAMME

06.04. WEDNESDAY (1)

- 09:00 - **José Gonzalez Del Amo, European Space Agency**
EPIC Workshop Welcome of the day
- 09:15 - **Jens Schmidt, DLR e.V.**
Capabilities of DLR's STG-ET facility for the testing of Electric Propulsion
- 09:30 - **Johan Kuiper, Bradford Engineering**
Industrialization and Qualification of Next-Generation Electric Propulsion Fluid Management Systems
- 09:45 - **Michel Poucet, LMO**
Development and Validation of a Miniaturised Electric Propulsion Thrust Pointing Mechanism for CubeSat and Small Satellites
- 10:00 - **Bernhard Seifert, FOTEC**
Development and Qualification of the FEEP Technology for future Science and Earth Observation Missions
- 10:15 - **Gilles Bouhours, Thales Alenia Space**
Disruptive Line – EPIC Project EDDA
- 11:00 - **Alexander Reissner, Enpulsion**
4 years of ENPULSION propulsion systems in space: A review and lessons learnt from launching 99 thrusters

11:15 - COFFEE BREAK

ROUNDTABLE

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- 11:30 - **Markus Peukert, OHB System AG**
Qualification of Electric Propulsion Thrusters - A Nightmare
Panel Discussion: „Qualification & Testing of Electric Propulsion Systems“
- Chairwoman:**
-Alain Demaire, OHB Sweden
- Panelists:**
-Herve Camares, Airbus
-Olivier Duchemin, Safran
-Dmytro Rafalskyi, ThrustMe
-Alexander Reissner, Enpulsion
-Hans Leiter, ArianeGroup
-Ernst Bosch, THALES
-Cosmo Casaregola, Eutelsat
-Markus Peukert, OHB System AG
-Peter Klar, JLU Gießen
-Daniel Schiller, DLR

13:30 - LUNCH BREAK



EPIC WORKSHOP

DETAILED PROGRAMME

06.04. WEDNESDAY (2)

14:30 - **Martin Wendling, Safran Electronics**
Disruptive Line – EPIC Project GaNOMIC

15:15 - **Javier Torres, Airbus Crisa**
Airbus DS PPU new developments for HET, GIT and technologies status

15:30 - **Martin Blaser, ASP Equipment**
Modular PPU Design (thrusters up to 1kW)

15:45 - **Eric Bourguignon, Thales Alenia Space Belgium**
PPU Developments at Thales Alenia Space in Belgium

16:00 - **Alessandro Ferreri, AVS United Kingdom**
Thruster and Power Processing Unit design of PET electro spray propulsion system for small satellites

16:15 - COFFEE BREAK

16:30 - **Eduardo Ahedo, Universidad Carlos III de Madrid**
Research activities at the Plasmas and Space Propulsion Team (EP2)

16:45 - **James Sadler, URA Thrusters Ltd.**
HYDRA – A Chemical-Electrical Hybrid Propulsion System Using Electrolyser Water as a Propellant

17:00 - **Marcus Collier Wright, Neutron Star Systems**
Progress in Research and Development of Superconductor-Based Applied-Field Magnetoplasmadynamic Technology

17:15 - **Aaron Knoll, Imperial College London**
Overview of Research within the Imperial Plasma Propulsion Laboratory

17:30 - **Burak Karadag, University of Surrey**
Disruptive Electric Propulsion Research and Development Activities at the Surrey Space Centre

17:45 - **Sam Reeve, URA Thrusters Ltd**
Microwave Electrothermal Thruster Development Activities at URA Thrusters

18:00 - **Charlie Ryan, University of Southampton**
Electro spray thruster research at the University of Southampton

18:15 - **Heiko Dartsch, AST Advanced Space Technologies**
Highly modular fluidic control solutions for EP systems with large scale production in mind

18:30 - END OF THE DAY



EPIC WORKSHOP

DETAILED PROGRAMME

07.04. THURSDAY (1)

09:00 - **José Gonzalez Del Amo, European Space Agency**
EPIC Workshop Welcome of the day

09:15 - **Holger Kersten, Thomas Trottenberg**
University Kiel

09:45 - **Kristof Holste, Torsten Henning**
Justus Liebig University Gießen

10:15 - **Jochen Schein**
Bundeswehr University Munich

10:45 - COFFEE BREAK

11:00 - **Georg Herdrich**
Institute of Space Systems Stuttgart

11:30 - **Martin Tajmar**
Technical University Dresden

12:00 - **Chris Volkmar, Uwe Probst**
University of Applied Sciences Mittelhessen

12:30 - **Lars Lewerentz**
University of Greifswald

13:00 - **Daniel Spemann, Christoph Eichhorn**
Leibniz Institute of Surface Engineering

13:30 - LUNCH BREAK

14:30 - **Luis Conde, Universidad Politecnica de Madrid**
A low power heaterless plasma discharge (HPD) cathode for electric propulsion applications

14:45 - **Pierre Moutet, Dactem Development**
Experimental performances of an optimized thrust balance used for accurate measurements in electrical thruster qualification endurance testing

15:00 - **Theodora Andreescu, Romanian R&D Institute**
Development and Experimental Validation of a Disruptive RF Propulsion Technology based on Helicon Discharges

15:15 - **Jorge Gonzalez, DIFFER**
Direct thrust measurements, plasma plume kinetics and numerical simulations of the alternative Low Power Hybrid Ion Engine (alphie)

15:30 - **Emilia Wegrzyn, AVS United Kingdom**
Engineering Design of a Thruster-pointing Mechanism (TPM-250) for Deep Space and IOS Nanosats

15:45 - COFFEE BREAK



EPIC WORKSHOP

DETAILED PROGRAMME

07.04. THURSDAY (2)

15:45 - COFFEE BREAK

16:00 - **Frank Koch, Orbit Recycling**

Comparison of In-Situ Simulant vs Commercial Propellant: Initial Tests of Aluminium Propellant in a Pulsed Cathodic Arc Thruster

16:15 - **Konstantinos Katsonis, DEDALOS Ltd.**

Exploration of the Neptune-triton system using ISRU electric propulsion

16:30 - **Mick Wijnen, ienai Space**

ATHENA & IENAI GO/360: a concurrent engineering approach to thruster design for micro-, nano- and picosatellites

16:45 - **Dejan Petkow, SPARC Industries SARL**

Status and Benefits of Computational EP Development - Today and Tomorrow

17:00 - **Paul Schedler, ETH Zurich**

Model inference with a One-Dimensional Hall Thruster code

17:15 - **Chloe Berenguer, DEDALOS**

Modeling and diagnostics of ISRU technology electric thrusters meant for extremely low Earth orbits propulsion

17:30 - **Fabian Plaza, Advanced Thermal Devices**

Novel approach to EP based on NH₃ as propellant and on-board energy generation

17:45 - **Adam Obrusnik, PlasmaSolve s.r.o**

Simulation-guided engineering of a novel, high-efficiency, plasma source for air-breathing EP

18:00 - **Adrián Domínguez-Vázquez, Universidad Carlos III de Madrid**

HYPHEN: a multi-thruster simulation platform for plasma space propulsion systems

18:15 - **Massimo Panarotto, Chalmers University of Technology**

Towards Digital Twin-driven Robust Design of Electric Propulsion Architectures

18:30 - END OF THE DAY



EPIC WORKSHOP

DETAILED PROGRAMME

08.04. FRIDAY

- 09:00 - **José Gonzalez Del Amo, European Space Agency**
EPIC Workshop Welcome of the day
- 09:15 - **Martin Hörenz, Forschungszentrum Jülich**
Public Funding Programs in Germany
- 09:30 - **Shiv Contractor, AZO Oberpfaffenhofen**
INNOSpace Masters and ESA Business Incubation Center
- 09:50 - **TBC, Starburst**
Starburst Accelerator for Startups

10:05 - COFFEE BREAK

ROUNDTABLE

- 10:20 - **Panel Discussion: „History, lessons learned and path forward from previous Electric Propulsion Startups“**
- Chairman:**
-Rosario Pavone, SME4SPACE
- Panelists:**
-Ane Aanesland, ThrustMe
-Daniele Pavarin, T4i
-Antonio Gurciullo, Exotrail

EVENT HORIZON

- 11:30 - **Startup Pitch Session („Shark Tank“-Style)**
- Jurors:**
-Christian Ziach, HighTech Gründerfonds
-Frank Jansen, DLR Bremen
-Alain Demaire, OHB Sweden
-TBC, Starburst Accelerator
- Startups:**
-Manuel Betancourt, Neutron Star Systems
-Aleksandr Kharlan, Starwell
-Dejan Petkow, SPARC Industries
-Paul Nizenkov, Boltzplatz
-Mick Wijnen, ienai SPACE
-Mark Stokes, Magdrive
-Jan Mataro, Kreios Space

- 13:15 - **José Gonzalez Del Amo, European Space Agency**
EPIC Workshop Closing Remarks

13:30 - LUNCH BREAK

OPEN NETWORKING

15:00 - END OF THE WORKSHOP

