

International Academy of Astronautics

2019 IAA Low-Cost Planetary Missions Conference

June 03-05, 2019
Toulouse, France

PROGRAM

	
 <p data-bbox="533 1308 794 1451">Université Paul Sabatier TOULOUSE III</p>	
	

Tuesday June 4, 2019

09:00 – 9:30 - Invited remote presentation by **Hajime Yano** – JAXA/ISAS – “Hayabusa2 as a low cost planetary mission enhanced by micro-sat/rover contributions

09:30 – 10:30 – **Session 3 follow on - Missions Currently Under Development for Launch in the Near Future**

Chair-persons: **Cheryl Reed & David Mimoun**

- **09:30 IAA-LCPM13-03-05 Simon Tardivel** - CNES – The MMX rover: an innovative design enabling Phobos in-situ exploration
- **09:50 IAA-LCPM13-03-06 Cédric Virmontois** – CNES – A Micro-Class Lunar Rover Mission to Image Imbrium Lava Flows
- **10:10 IAA-LCPM13-03-07 Calzada Diaz (presented by Antoine Bocquier)** - ispace Europe - ispace' s Polar Ice Explorer: a commercial SRU exploration mission to the South Pole of the Moon

10:30 – 10:50 - Coffee break

10:50– 12:30 – **Session 4- Science Instruments Enabling the Next Generation of Low-Cost Planetary Exploration**

Chair-persons: **François Leblanc & Jérémie Lasue**

- **10:50 IAA-LCPM13-04-01 Macey Sandford** - Hawai'i Institute of Geophysics & Planetology – Raman long range laser Spectrometer
- **11:10 IAA-LCPM13-04-02 Till Hagelschuer** - DLR – RAX, a Raman Spectrometer for MMX onboard the rover for Phobos
- **11:30 IAA-LCPM13-04-03 Raphaël Garcia** – ISAE Supaéro – Innovative ground motion sensors for planets and asteroids: PIONEERS H2020-SPACE european project
- **11:50 IAA-LCPM13-04-04 Naomi Murdoch** – ISAE Supaéro - SEISCUBE: A Geophysical Cubesat for Small Body Exploration
- **12:10 IAA-LCPM13-04-05 Alain Herique** - IPAG - A Low Frequency Radar to Fathom Asteroids from Cubesat

12:30 – 14:00 - Lunch break

14:00 – 15:20 – **Session 4 follow on - Science Instruments Enabling the Next Generation of Low-Cost Planetary Exploration**

Chair-persons: **François Leblanc & Jérémie Lasue**

- **14:00 IAA-LCPM13-04-06 Chiara Ferrari-Wong** - Hawai'i Institute of Geophysics and Planetology - A Thermal Hyperspectral Cubesat Concept for Lunar Exploration
- **14:20 IAA-LCPM13-04-07 Nicolas Andre** - IRAP – Miniaturized Charged Particle Detectors for Low-Cost Planetary Exploration
- **14:40 IAA-LCPM13-04-08 Pierre Devoto** - IRAP - A Reconfigurable Energetic Particle Detector For Planetary Exploration
- **15:00 IAA-LCPM13-04-09 Pierre Henri** – LPC2E - Mutual Impedance Experiments for Low-Cost Exploration of Planetary Ionospheres and Induced Magnetospheres

15:20 – 15:50 – Invited paper – **Christophe Pagès** - Airbus Space & Defense - Oneweb spacecraft design & production approach, and potential re-use

Wednesday June 5, 2019

09:00 – 10:45 - **Session 5B - Advanced Concepts for the Next Generation of Low-Cost Missions, Including CubeSats, NanoSats and others, Mission concepts** (all presentations 15 mn)

Chair-persons: **Michèle Lavagna & Daniel Hestroffer**

- **09:00 IAA-LCPM13-05B-01 John Baker** – JPL – Cupid’s Arrow Mission Concept Overview
- **09:15 IAA-LCPM13-05B-02 Craig Underwood** – University of Surrey– VMMO Lunar Volatile and Mineralogy Mapping Orbiter, A CubeSat Mission to Investigate the Lunar Surface and Radiation Environment
- **09:30 IAA-LCPM13-05B-03 Dhack Muthulingam** – JPL - A Low-cost Interplanetary Explorer for Solar System Scale Science
- **09:45 IAA-LCPM13-05B-04 Geraint Jones** - UCL Mullard Space Science Laboratory - Comet Interceptor: A proposed ESA Mission to a Dynamically New Comet
- **10:00 IAA-LCPM13-05B-05 Davide Perna** – INAF - NEST: The “Near-Earth Space Trekker” Multi-Asteroid Mission Concept
- **10:15 IAA-LCPM13-05B-06 Jacopo Prinetto** - Politecnico di Milano - Near Earth Space Trekker: the Fast-class science mission to characterize multiple size asteroids
- **10:30 IAA-LCPM13-05B-07 Cristian Greco** (presented by Lewis Walker) - University of Strathclyde - Mission Analysis and System Study for a Multi-Flyby Low-Cost Exploration Mission of Neas with Nano-Spacecraft

10:45 – 11:00 - Coffee break

11:00 – 12:30 - **Session 5B follow on - Advanced Concepts for the Next Generation of Low-Cost Missions, Including CubeSats, NanoSats and others, mission concepts** (all presentations 15 mn)

Chair-persons: **Michèle Lavagna & Daniel Hestroffer**

- **11:00 IAA-LCPM13-05B-08 Cristian Greco** Daniel Hestroffer - IMCCE/ Paris Observatory - BIRDY an interplanetary CubeSat to visit Small Bodies,
- **11:15 IAA-LCPM13-05B-09 Sami Asmar** – JPL - Low Cost Ride-Along Small Spacecraft for Enhanced Science with Radio Links
- **11:30 IAA-LCPM13-05B-10 Hongru Chen** – IMCCE/ Paris Observatory - Mothercraft-CubeSat Radio Science for Surveying Phobos
- **11:45 IAA-LCPM13-05B-11 François Leblanc** – LATMOS - Network of small satellites for the exploration of planetary Magnetosphere (NETSSEM)
- **12:00 IAA-LCPM13-05B-12 Yulia Akisheva** - ISAE Supaéro - A Cubesat Constellation Mission For Multipoint Measurements on Mars
- **12:15 IAA-LCPM13-05B-13 Alessandro Retino** - LPP - PROSPERO (PRObing the Structure of Plasma Energisation Regions): a Smallsat Concept to Study Plasma Energy Conversion and Particle Acceleration in Near-Earth Space

12:30 – 14:00 - Lunch break

14:00 – 16:20 – **Session 6- Access to deep space, launch solutions, use of commercial services in support to planetary exploration such as transportation, navigation and communication**

Chair-persons: **Silvia Bayón & Pierre Bousquet**

How to get to the venue:

Grand amphithéâtre de l'Université Paul Sabatier
Route de Narbonne
31330 Toulouse, France

Direct access through Subway Line B, Université Paul Sabatier station.
The path to the conference venue will be marked from the metro station.

Accès au campus

- **Autobus et voie multimodale LMSE**
Lignes 34, 27, 37, 44, 54, 56, 78, 81, 82, 88, 115

- **Méto**



- **Système de location de vélos en libre-service VéloToulouse**
Plusieurs stations sont disponibles sur le campus (voir verso)

The conference hall is circled in yellow below (building ADM).
It is located 200 m down the Metro exit "Université Paul Sabatier" on line B.

