## **2023 Clean Space Industry Days**

# Tuesday, 17 October 2023

#### In-Orbit Servicing & Debris Removal: Plenary: Removal services (11:30 - 13:00)

time	[id] title	presenter
11:30	[52] GNC for rendezvous, dynamic capture and stabilization of spinning non-cooperative target	Mr PARREIRA, Baltazar
11:50	[88] e.Inspector phase B: 12U CubeSat for debris target multispectral close inspection	Prof. LAVAGNA, Michelle
12:10	[23] COSMIC, UK's first Active Debris Removal mission and Europe's latest gem to the In-Orbit Servicing ecosystem	VALENCON, Maxime
12:30	[102] CAT-IOD: PHASE 0 FOR AN IN-ORBIT DEMONSTRATION MISSION FOR ACTIVE DEBRIS REMOVAL	GANDIA, Fernando

#### In-Orbit Servicing & Debris Removal: Mission Implementation: IOS (14:00 - 15:30)

time	[id] title presenter	
14:00	[78] D-Orbit's In-Orbit Servicing: A Customer-Driven Development Approach	GARCES DE MARCILLA, Diego Mr ANTONETTI, Stefano
14:20	[91] Regulatory Frameworks for a Thriving Circular Space Economy	Mr BUCHS, Romain
14:40	[22] Beyond ELSA-M – Developing Sustainable In-Orbit Commercial Services	Ms SERFONTEIN, Zaria
15:00	[35] IOSHEX AND SPACERIDER INTEROPERABILITY TOWARDS ACTIVE DEBRIS REMOVAL AND RECYCLING	Mr MARIANI, Marco

#### <u>In-Orbit Servicing & Debris Removal: Mission Implementation: IOS</u> (16:00 - 17:30)

time	[id] title	presenter
16:00	[7] EROSS IOD - Mission Progress Status	DANDRÉ, Pierre
	[49] Orbit Fab Podracer mission: an on-orbit testbed proving out the building blocks of sustainable orbital refueling	GEIMAN, Connor
16:40	[40] SENER's perspective on Active Debris Removal	RAMOS PRADA, María Antonia

### Wednesday, 18 October 2023

#### In-Orbit Servicing & Debris Removal: Policy and Close-Proximity Operations (09:30 - 11:00)

time	[id] title	presenter
09:30	[9] Verification and Validation of Rendezvous and CPO Safety	COMELLINI, Anthea
	[3] Navigating the Stars Responsibly: Ethics in Mission Implementation for Active Debris Removal and In-Orbit Servicing	DAVIES, Jane DAVIES, jane
10:30	[146] ESA Close-Proximity Operations activities	COTUNA, Adina

#### In-Orbit Servicing & Debris Removal: Robotics (11:30 - 13:00)

time	[id] title	presenter
11:30	[46] Grappling and Refuelling Active Solution for Propellants (GRASP) - A Concept for a European Active Side to the RAFTI Open License Interface	HILL, Sebastian
11:45	[74] Minimum invasive refueling coupling, for teleoperated refueling operations.	Mr KOSMAS, Charalampos
	[38] Development of Modular Robotic System for Servicing and Deorbiting Missions	KLESZCZYŃSKI, Dominik
	[41] Unveiling the Potential of Cooperative Multi-Agent Spacecraft for ADR, IOS, and Cyclic Space Economy	Dr GEBURA, Marek
12:30	[44] Extending Ground Segment Products for supporting a large range of In-Orbit Services	NIEZETTE, Marc

#### In-Orbit Servicing & Debris Removal: Guidance, Navigation and Control (GNC) (15:00 - 16:30)

time		[id] title	presenter	
1		[85] Trajectory Optimization for The Proximity Rendezvous Operation Considering The Relative Navigation Error	Mr NAKAJIMA, Yu	
1		[45] Opportunities and Challenges in Deep Learning-based Spacecraft Pose Estimation for Future In-orbit Servicing missions.	RATHINAM, Arunkumar	

#### In-Orbit Servicing & Debris Removal: Guidance, Navigation and Control (GNC) (17:00 - 18:30)

time	[id] title	presenter	
17:15	[58] A fault-tolerant AI processor to accelerate onboard computer vision workloads	Dr WOUTERS, Jasper	
	[60] Progress in vision-based navigation technologies for non-cooperative close proximity operations	REGAD, David	
	[42] A multispectral camera solution for guidance and navigation on space servicing vehicles	PALLA, Chiara	
18:00	[71] A reliable visible camera suite for In-Orbit Servicing	MAJEWSKI, Laurent	

# Thursday, 19 October 2023

#### In-Orbit Servicing & Debris Removal: Circular economy in space (09:30 - 11:00)

time	[id] title	presenter
09:30	[111] The Space Rider System key-role for a future cleaner and sustainable space environment.	Mr RINLDUCCI, Antonio CARAMELLI, Fabio
09:48	[48] Toward a Circular Space Economy: Overcoming Blockers for Sustainability	Ms BOWMAN, Portia
10:06	[117] Role of refueling in the global satellite ecosystem.	BALASUBRAMANIAN, Nikhil Mr RAMACHANDRAN, Sakthikumar
10:25	[70] Guidance, Navigation, and Control of In-Orbit Assembly of Large Antennas – technologies and approach for IOANT	Mr PAULINO, Nuno

### <u>In-Orbit Servicing & Debris Removal: Circular economy in space</u> (11:30 - 13:00)

time	[id] title	presenter	
11:30	[57] Manufacturing using waste from space resources for a circular space economy	SCHILD, Timon	
11:48	[131] Orbiting Sustainability: Crafting a Circular Economy White Paper for Space		