

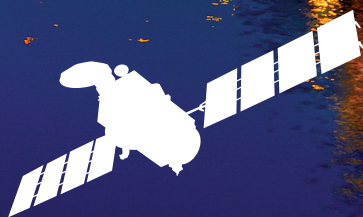
17th ECSSMET

28 > 30 MARCH 2023

TOULOUSE / FRANCE

> PROGRAM

European Conference on Spacecraft Structures Materials and Environmental Testing



WELCOME

The “European Conference on Spacecraft Structures, Materials and Environmental Testing” aims to promote and facilitate discussion and exchange of experience and information among members of the various mechanical engineering disciplines and environmental testing community concerned with spacecraft development, assembly, integration and verification.

The conference sessions will be devoted to:

- Mechanical architecture, design and engineering
- Innovative Structures (damping, deployable, stable, active)
- Structural Materials
- Structural dimensioning, including damage tolerance, fatigue ...
- Dynamics (vibroacoustic, random, shocks, microvibrations...)
- Environmental testing and test prediction
- Advanced manufacturing, including Additive Layer Manufacturing
- In-flight experiments and flight data
- Space Sustainability (debris, D4D, HVI...)
- New Space (missions, methodologies...)

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COMMITTEES

CONFERENCE CHAIRMEN

- TOURNEAU Pierre-Yves, CNES Toulouse, FR
- GHIDINI Tommaso, ESA/ESTEC, NL
- HÜHNE Christian, DLR, DE

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- TOURNEAU Pierre-Yves, CNES Toulouse, FR
- PUILLET Christian, CNES Toulouse, FR
- HOT Aurélien, CNES Toulouse, FR
- TORRES Marina, CNES Toulouse, FR
- FAURE Christine, CNES Toulouse, FR
- GOUHOT Christine, CNES Paris, FR

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- BROUTELLE Marion, CNES, Toulouse, FR
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- COE Graham, ESA/ESTEC, NL
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- KERSCHEN Gaetan, Univ. of Liège, BE
- KILEY Andy, AIRBUS, UK
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- MARTIN LLORENTE Joaquín, AIRBUS, ES
- MOUREY Patrick, CNES, Paris, FR
- MULLER Stéphane, ARIANE GROUP, FR
- NEBIOLO Marco, THALES ALENIA SPACE, Turin, IT
- NORMAN Andy, ESA/ESTEC, NL
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- PUILLET Christian, CNES, Toulouse, FR
- RIVA Nicola, OHB, DE
- ROHR Thomas, ESA/ESTEC, NL
- ROOSE Stéphane, Univ. of Liège, BE
- SHI Qinzong, JAXA, JP
- STRAUBEL Marco, DLR, DE
- TAULEMESSE Christel, THALES ALENIA SPACE, Cannes, FR
- TORRES Marina, CNES, Toulouse, FR
- TOURNEAU Pierre-Yves, CNES, Toulouse, FR
- XU Chao, Northwestern Polytechnical Univ., PRC



TUESDAY 28 MARCH

08h00	REGISTRATION / WELCOME			
Room	AUDITORIUM SAINT-EXUPERY			
09h30	Opening speech by the CNES Technology & Digital Deputy Director SOUYRIS Jean-Claude			
10h00	Opening speech by the Conference Chairs TOURNEAU Pierre-Yves - CNES, HÜHNE Christian - DLR, GHIDINI Tommaso - ESA			
10h30	Coffee break / Poster session / Exhibition			
11h00	Keynote 1	The wave of micro/mini launchers in Europe - VILA Jérôme - MAIASPACE		
11h30	Keynote 2	The Artemis program - BERTHE Philippe - ESA		
12h00	Keynote 3	The Mars program and the Search for traces of life - MAURICE Sylvestre - IRAP		
12h30	Lunch / Poster session / Exhibition			
Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Process - 1/2	Composites - Design, Manufacturing & Testing - 1/2	Environmental testing - Acoustics & DFAT	Deployable Structures - Antenna
	CHAIRS: MULSER Marco - OHB System AG - DE VANDEVELDE Simon - CNES - FR	CHAIRS: MATHIS Kévin - CNES - FR BERRILL Mark - ESA/ESTEC - NL	CHAIRS: FABRIES Christophe - THALES ALENIA SPACE - FR NGAN Ivan - ESA / ESTEC - NL	CHAIRS: SPROEWITZ Tom - DLR - DE IHLE Alexander - ESA / ESTEC - NL
14h00	056 SCALDATA: MACHINE LEARNING FOR COST EFFECTIVE A HERNANDEZ ALVAREZ Lidia - ALARCOS FRESNO Mariano - CiTD - ES	233 DESIGN, ANALYSIS AND VERIFICATION OF THE MMX MECSS INSERT GLUING CONCEPT MIERHEIM Olaf - LANGE Michael - MEYER Sebastian - HÜHNE Christian - DLR - DE	037 WHAT'S BEHIND THE PLOTS OF A DIRECT FIELD ACOUSTIC TEST (DFAT®) CARRELLA Alessandro - MSI-DFAT - US MUSELLA Umberto - Siemens Digital Industries Software - BE	065 IMPROVEMENT OF DEPLOYMENT REPEATABILITY OF RIB-HOOP TYPE REFLECTORANTENNA BY VIBRATION MATSUBARA Hiroaki – TANAKA Hiroaki – NDA of JP - JP
14h25	031 STUDY ON PROCESSING OF LARGE-SCALE MAGNESIUM ALLOY AZ91 COMPONENT MANUFACTURED BY PLASMA METAL DEPOSITION (PMD®) FOR SPACE APPLICATIONS ARIZA GALVÁN Enrique - RHP-Technology GmbH - AT BACA Luboš - Aerospace & Advanced Composites GmbH - AT SCHNALLMartin - LKR	046 CARBON FIBRE REINFORCED ALUMINIUM METAL MATRIX COMPOSITES WITH ADVANCED LAYUPS AND GEOMETRIES RAUSCHER Alexander - UCSNIK Stephan - AIT - AT MOZDZEN Grazyna - SCHEERER Michael - Aerospace & Advanced Composites GmbH - AT NEUBAUER Erich - REITER Josef - RHP-Technology GmbH - AT	107 VALIDATION OF NOVEL DIRECT FIELD ACOUSTIC TEST WORKFLOW BY SIMULATION AND MEASUREMENT FRIEDLANDER Eric - Acoustic Research Systems - US SCHICK Dale - HOFFMANN Thomas - m+p international - DE SHORTER Phil - Dassault Systèmes - FR WULF Tobias - ARS - DE	110 LDRS – THE SCALABLE EUROPEAN SOLUTION OF LARGE DEPLOYABLE REFLECTOR SUBSYSTEMS FOR EARTH OBSERVATIONAND TELECOMMUNICATION PROIETTI ZOLLA Paolo - LOESCH Martin - HPS GmbH - DE DATASHVILI Leri - LSS GmbH - DE KOSMALSKI Mariusz - ENDLER Stephan - HPS GmbH - DE MAGHALDADZE Nikoloz - BELLÓ ESCRIBANO Marta - LSS GmbH - DE OSWALD Max - DYBEK Gerorg - Beyond Gravity DE GmbH - DE LOPES Ricardo - LOPES Filipe - INEGI - PT SUESS Martin – ESA - NL
14h50	129 IDENTIFICATION OF PROCESS WINDOWS FOR THIN 3D-PRINTED STRUCTURES ERNOULD Clément - BARRIERE Ludovic - GALY Cassiopee - IRT Saint Exupery - FR GAS Maxime - Lisi Aerospace Additive Manufacturing - FR	176 ENHANCING THE PERFORMANCE OF FIBER REINFORCED POLYMER COMPOSITES WITH ELEC-TROSPUN NANOFABRICS EVANGELOU Angelos - LOIZOU Katerina - DRAKONAKIS Vassilis - AmaDema - CY	049 SENSITIVITY STUDY OF VIBRO-ACOUSTIC RESPONSES IN MULTIPLE-INPUT MULTIPLE-OUTPUT CONTROL STRATEGIES FOR DIRECT FIELD ACOUSTIC NOISE TESTS GARCIA DE MIGUEL Alberto - MUSELLA Umberto - ALVAREZ BLANCO Mariano - PEETERS Bart - SISW - BE	098 DEPLOYER DESIGN AND TESTING OF A DEPLOYABLE ROLLED-UP COMPOSITE SAR ANTENNA (DERAC-SAR) FOR CUBESATS TRESOLDI Annalisa - SHORE Jason - AUSTIN Andrew - AGLIETTI Guglielmo - Space Institute - NZ - NZ

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
15h15	142 ASSESSMENT OF PLASMA METAL DEPOSITION (PMD®) FOR THE MANUFACTURING OF LARGE STRUCTURES OF ALUMINIUM ALLOYS NEUBAUER Erich - ARIZA Enrique - RATH J. - MANSOURI A. - CURTI P. - WALLIS C. - KITZMANTEL M. - RHP Technology GmbH - AT	201 DEVELOPMENT OF A METAL MATRIX COMPOSITE FOR CRACK FREE HIGH GAMMA PRIME NICKEL-BASED SUPERALLOYS IN ADDITIVE MANUFACTURING BÜSSENSCHÜTT Klaus – KOSS Stephan – SCHLEIFENBAUM Johannes-Henrich – RWTH Aachen, Digital Additive Production DAP - DE	199 SIMULATION OF ACOUSTIC RESPONSES OF SPACECRAFT UNDER MULTIPLES ARRAYS OF SOUND SOURCES BORELLO Gérard - InterAC - FR DUPUIS Paul-Eric - FERNANDES Mathieu - AIRBUS D&S - FR	211 DEVELOPMENT OF 1-METER DEPLOYABLE MESH REFLECTOR FOR CUBESAT MISSIONS DOMINGUEZ Iñigo - PROSIX ENGINEERING - ES FAYOS Juan - COMET INGENIERIA - ES PIPO Alvaro - PROSIX ENGINEERING - ES NIETO Jose - COMET INGENIERIA - ES MARTÍNEZ Aitor - EOSOL - ES BLANCH Sebastian - UPC – ES ERENCHUN Aitor - INGENIERIA PROSIX SL - ES
15h40	146 TEXT2PART: DO ROBOTS DREAM WITH SPACE BRACKETS? STEWART LAFUENTE Alejandro - CITD - ES		074 IDENTIFICATION OF THE INFLUENCE OF FLIGHT HARDWARE IN A REVERBERATION CHAMBER FOR ACOUSTIC NOISE TESTING – A PRACTICAL APPROACH STORM Stefan - ZILLMANN Jörgen - DILLINGER Stephan - Space Test Center IABG mbH - DE	218 MODULAR DEPLOYABLE ANTENNA FOR CUBESATS AND MINISATS NIETO Jose - Comet Ingenieria S.L - ES BLANCH Sebastián - Universitat Politècnica de Catalunya - ES DOMINGUEZ Iñigo - Prosix Engineering - ES FAYOS Juan - Comet Ingenieria S.L - ES MARTÍNEZ Aitor - Eosol Group Engineering - ES PINAZO Jorge - Comet Ingenieria S.L - ES PIPÓ Álvaro - Prosix Engineering – ES
16h05	Coffee break / Poster session / Exhibition			
Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Process - 2/2	Composites - Design, Manufacturing & Testing - 2/2	Acoustics / Environmental testing - Thermal	Deployable Structures - Booms & Mechanisms
	CHAIRS: MALLON Michael - ESA - NL LEGRAND Silvain - THALES ALENIA SPACE - FR	CHAIRS: TORRES Marina - CNES - FR MARTIN Joaquin - AIRBUS - ES	CHAIRS: ROOSE Stephane - CSL - BEL FABRIES Christophe - THALES ALENIA SPACE - FR	CHAIRS: ZANDER Martin - DLR - DE CARDONE Tiziana - ESA - NL
16h30	030 MANUFACTURING AND FAILURE MODES OF ALS10MG 3D PRINTED SANDWICH PANEL INSERTS DUMITRESCU Adrian - WALKER Scott - Univ. of Southampton - GB BHASKAR Atul - Univ. of Sheffield - GB	028 DESIGN, MANUFACTURING AND CHARACTERIZATION OF COMPOSITE STRUCTURES WITH CONTROLLED STABILITY LORIAUD Vincent - Y. LEDRU - E. AUBLANT - SANSA BERNAT Maria - ORSINGHER Sebastien - MECANO ID - FR	148 ACOUSTIC METAMATERIALS FOR LAUNCH NOISE MITIGATION. ESCARTI-GUILLEM Mara Salut - COMET Ingenieria SL - ES CHIMENO Marcos - Departamento de Aeronaves y Vehiculos Espaciales, - ES FAYOS Juan - COMET Ingenieria SL - ES GARCIA-RAFFI Luis M. - I. Univ. Matemática Pura y Aplicada, Unive - ES NIETO Jose - COMET Ingenieria SL - ES PICO Ruben - ROMERO-GARCIA Vicent - SANCHEZ-MORCILLO Victor - Univ. Politècnica de València - ES SIMON Francisco - ITEFI-CSIC - ES	088 THE DEVELOPMENT OF A SELF-RESETABLE, LOW-SHOCK HOLD-DOWN AND RELEASE MECHANISMS REERSHEMIUS Siebo - DLR - DE

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
16h55	206 MASS REDUCTION, DESIGN OPTIMIZATION, AND VERIFICATION OF A NANOSATELLITE FRAME STRUCTURE MABINI Gabriel Kevin - Philippine Space Agency (PhilSA) - PH ANTE Ulysses - MIRDC - Advanced Manufacturing Center - PH PADACA Jose Bernardo III - MIRDC - Advanced Manufacturing Center - PH GERALDO Earl - MIRDC - Advanced Manufacturing Center - PH DEL ROSARIO Manuel Jr. - NG Arvin Oliver - LABRADOR John Leur - Philippine Space Agency (PhilSA) - PH BUISON Alvin - SARMIENTO Vladimir - MIRDC - Advanced Manufacturing Center - PH	015 COMPOSITE GRID STRUCTURE WITH EMBEDDED FIBER OPTIC SENSING CAPABILITY WEISSBERG Ilan - Arviv Daniel - CARMi Yehonatan - IAI - IL DE NICOLA Felice - GIUSTO Giovangiuseppe - CIRA - IT LALAZAR Nir - IAI - IL SPENA Paola - TOTARO Giovanni - CIRA - IT	167 ESTIMATION OF A CRAIG BAMPTON EQUIVALENT MODEL FROM BASE EXCITATION MEASUREMENTS CERINI Corinna - Uni of Auckland - NZ AGLIETTI Guglielmo S. - YOTOV Vladimir V. - Te Punaha Atea - Space Institute, The Univ. o - NZ	114 CONFIGURATION, DESIGN AND ANALYSIS OF A PASSIVE DEPLOYABLE MECHANISM FOR OPTICAL PAYLOADS YALAGACH Akash - GANDHI Rishabh - Univ. of Auckland - NZ HONETH Mark - NewSpace Systems - NZ AGLIETTI Guglielmo S. - Univ. of Auckland - NZ
17h20	235 DESIGN, REALIZATION AND EXPERIMENTAL VALIDATION OF A CUBESAT 1U MECHANICAL STRUCTURE MADE BY ULTEM 1010 USING FDM PROCESS MORETTINI Giulia - DI-UNIPG, Dipartimento di Ingegneria, Università d - IT MANCINI Edoardo - MUSSOLIN Lorenzo - INFN- Istituto Nazionale di Fisica Nucleare, Sezio - IT DIONIGI Marco - CIANETTI Filippo - DI-UNIPG, Dipartimento di Ingegneria, Università d - IT	157 FULL CFRP STRUTS PRODUCTION PROCESS BHATTACHARYA Maharshi - SPIGAROLO Enrico - Space Structures - DE	040 SENSITIVITY ANALYSIS OF ACCELEROMETERS FOLLOWING THERMAL CYCLING BOND Emily - KNIGHT Charly - FIELDING Tom - HORSFALL Ian - RAL Space, STFC - GB	230 OG TESTING OF ALTERNATIVE BOOM ROOT INTERFACE CONCEPTS FOR ROLLABLE COMPOSITE BOOMS STRAUBEL Marco - HILLEBRANDT Martin - DLR - DE
17h45	184 DESIGN OF A 3D-PRINTED COLD GAS PROPULSION SYSTEM FOR CUBESATS MABINI Gabriel Kevin - ROSIMO Nathan Oscar - Philippine Space Agency - PH ANTE Ulysses - CARRIDO Jozal - CORONADO Leif - GERALDO Earl - Advanced Manufacturing Center, DOST-MIRDC - PH	250 GRAM TECHNOLOGY: THE MOST EFFICIENT WAY TO OPTIMIZE MASS OF SPACE STRUCTURES BONVOISIN Benoît - ESA - NL MACIEIRA David - Gradel - LU PERRIN Henri - LIST - LU POMMATAU Gilles - THALES ALENIA SPACE - LU	045 EUCLID PLM : THERMAL BALANCE AND THERMAL VACUUM TEST AT CSL PREMISES LIEBECQ Sylvie - TYCHON Isabelle - JACQUES Lionel - MARQUET Benoît - LALLEMAND Etienne - SAMAIN Valérie - KELLENS Anthony - GRODENT Christophe - CSL - BE JACQ Pascal - ZANONI Marc - MONTPELLERUS Denis - VALENTE Sylvie - FILLEUL David - CARMINATI Lionel - BROUARD Laurent - ADS-F - FR	196 NANOMAGSAT DEPLOYABLE AMAGNETIC BOOM ALGARRA Pablo - COMET Ingeniería - ES DOMÍNGUEZ Iñigo - PROSIX Engineering - ES NIETO José - FAYOS Juan - COMET Ingeniería - ES WILKINSON Josh - CORNWALL Toby - OPEN COSMOS - GB LEGER Jean-Michel - JAGER Thomas - CEA-Leti - FR
18h10		013 SALT CORES FOR ADVANCED MANUFACTURING OF COMPLEX FIBRE-REINFORCED COMPOSITES ERHARD Patricia - GÜNTHER Daniel - Fraunhofer IGCV - DE SCHUSTER Daniel - CAVICORE - DE	053 THERMAL MODEL CORRELATION OF QUALIFICATION MODEL OF A GEOSTATIONARY SATELLITE ATAER Süleyman Kaancan - ARABACI Selin - Turkish Aerospace - TR RUMELLI Soner - GOMSpace LU S.A.R.L. - LU SARIÇOBAN Ata - Turkish Aerospace - TR	
18h45	Welcome cocktail			

WEDNESDAY 29 MARCH

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Products & Applications - 1/2	Composites - Innovative matrices	Acoustics / Environmental testing - Launchers	Analysis & Design - Architecture & Product development
	CHAIRS: MONTREDON Florence - THALES ALENIA SPACE - FR BONVOISIN Benoît - ESA - NL	CHAIRS: LUCARELLI Stefano - AIRBUS - DE LAFONT Ugo - ESA - NL	CHAIRS: DA SILVA André - ESA/STS - FR AGLIETTI Guglielmo - Space Institute - NZ	CHAIRS: PASQUIER Pierre - CNES - FRA RIVA Nicola - OHB System - DE
08h30	242 I SMALL OPTICAL INSTRUMENTS DESIGNED WITH TOPOLOGY OPTIMIZATION AND CONSTRUCTED BY ADDITIVE MANUFACTURING VAN KEMPEN Floris - VAN DEN BOOM Sanne - OTTER Gerad - FERRARIO Ivan - VAN DER TOGT Oana - TNO - NL ZIMBECK Walter - POST Zachary - STORCK Steven - STEWART Benjamin - SWARTZ William H. - JHU APL - US	064 I FLEXIBLE SKINS FOR AIRCRAFT SURFACES MORPHING APPLICATIONS ORTEGA ESQUEMBRE Víctor - NIETO José - COMET Ingeniería - ES PIPO Álvaro - Proxix Engineering - ES JARA Álvaro - GONZÁLEZ Miguel - AIRBUS - ES	014 I OPTIMIZATION OF FAIRING ACOUSTIC PROTECTIONS BY MEANS OF MEASUREMENTS AND CAE TOOLS STELZER Rainer - MOLINARI Giulio - FREIBURGHaus Silvio - SÁNCHEZ CEBRIÁN Alberto - Beyond Gravity - CH	079 I EUROPEAN HIGH-PERFORMANCE ANTENNAS – A PROVE OF A SUCCESSFUL EUROPEAN TECHNOLOGY ROADMAP PROIETTI ZOLLA Paolo - HOFER Stefan - TRIBERTI Fulvio - LEONE Frsco - LORI Maurizio - REICHMANN Olaf - STOLZ Olaf - PFEIFFER Ernst K. - HPS GmbH - DE
08h55	143 I INTEGRATED TWIN-MIRROR DESIGNED AND MANUFACTURED BY ADDITIVE MANUFACTURING MULSER Marco - SEDLMAIER Thomas - KUISL Alexander - VOLKMANN Eike - OHB System AG - DE LIPPERT Michael - Fraunhofer IPT - DE OLAYA LEON Isabel - ESA ESTEC European Space Technology Centre - NL MEISNAR Martina - ESA ECSAT Europ. Centre f. Space Applic. & Telecom - GB	071 I RECYCLABLE, REPAIRABLE AND FIRE-RESISTANT HIGH-PERFORMANCE CARBON FIBERS-BIOBASED EPOXY COMPOSITES MIJA Alice - DINU Roxana - Cote d'Azur Univ. - FR LAFONT Ugo - ESA - NL DAMIANO Olivier - THALES ALENIA SPACE, FR ORANGE Francois - Cote d'Azur Univ. - FR	202 I PREDICTION/CORRELATION OF MOUNTING FLUX GENERATED BY FLATNESS DEFECT AT THE INTERFACE BETWEEN TWO LAUNCHER STRUCTURES MATHIS Kévin - CNES - FR TAFADJIRA Toufik - CT Ingenierie - FR	188 I DEVELOPMENT OF A COST-EFFICIENT RADIATOR SYSTEM PRELLER Fabian - INVENT GmbH - DE SCHMID Daniel - INVENT GmbH - DE
09h20	035 I DAMPING OF FLEXURE BLADES BASED ON BI-MATERIAL ADDITIVE MANUFACTURING: OPPORTUNITY FOR NEW DAMPER TOPOLOGIES? SAUDAN Hervé - SALAMIN Lisa - KLAUSER Elias - KIENER Lionel - BLONDIAUX Nicolas - KALENTICS Nikola - ROUSSEAU Olivier - CSEM SA - CH ZIKULNIG Johanna - Silicon AT Labs GmbH - AT BOUDOIRE Florent - CSEM SA - CH	172 I THERMOLATENT VITRIMER FORMULATION FOR CARBON FIBERS PREPREGS COMPOSITES RETAILLEAU Ianis - ESPCI Paris (PSL Univ) - FR POUTREL Quentin-Arthur - ESPCI Paris (PSL Univ) - FR LAFONT Ugo - ESTEC (ESA) - NL DOLL Bérangère - DAMIANO Olivier - TAS - FR TOURNILHAC François - ESPCI Paris (PSL Univ) - FR	215 I OVERVIEW OF CALLISTO VEHICLE ENVIRONMENT AND DESIGN DESMARIAUX Jean - DUBOIS Christian - FOUCAUD Simon - GIBRAT Nicolas - MAZELLIER Benoît - PUEL Florent - CNES - FR	164 I TRADING FOLDABLE AND RIGID HTS COIL CONCEPTS FOR THE COSMIC PARTICLE DETECTOR AMS 100 FEHR David - FH Aachen Univ. of Applied Science - DE SCHAELE Stefan - RWTH Aachen Univ. - DE CZUPALLA Markus - FH Aachen Univ. of Applied Science - DE

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
09h45	027 ADDITIVE MANUFACTURING OF POROUS ELECTRODES FOR REGENERATIVE FUEL CELLS FOR SPACE APPLICATIONS SANCHEZ Salomé - Universiteit Twente - NL KIRAN Kiran - Eindhoven Univ. of Technology - NL - ZAFARI Ahmad - Universiteit Twente - NL - GIMENEZ-GARCIA Inmaculada - FORNER-CUENCA Antoni - Eindhoven Univ. of Technology - NL - NASEEM Sikander - Fraunhofer Innovation Platform at Univ. of Tw - NL HOLYNSKA Malgorzata - ESA-ESTEC - NL - JAFARI Davoud - Universiteit Twente - NL	220 FROM CONVENTIONAL TO NANO-ENABLED MATERIALS FOR THERMALLY AND ELECTRICALLY CONDUCTIVE SPACECRAFTS' STRUCTURES BLASAKIS Nicolas - ATHINAIOS Dimitrios - KOUTSOUKIS Grigoris - BALTOPOULOS Athanasios - VAVOULIOTIS Antonios - Adamant Composites - GR TSANTZALIS Stavros - KOSTOPOULOS Vassilis - Applied Mechanics Laboratory, Univ. of Patras - GR SURACE Daniele - ZAJAC Kai - Beyond Gravity DE - DE PAMBAGUIAN Laurent - BONVOISIN Benoit - TEC-MSP, ESA/ESTEC - NL	101 DEVELOPMENT, TEST AND QUALIFICATION OF CALLISTO VEHICLE TO ITS DYNAMIC ENVIRONNEMENT FOUCAUD Simon - GIBRAT Nicolas - GONIDOU Luc - LIDON Norbert - DESMARIAUX Jean - CNES - FR	160 DESIGN OF A WINDOW ASSEMBLY FOR MAN RATED SPACECRAFTS BUSÀ Franco - CHIAMPI Massimo - OSSOLA Enrico - THALES ALENIA SPACE - IT
10h10		043 ENHANCING TOUGHNESS, ELECTRICAL AND THERMAL CONDUCTIVITIES IN CARBON FIBRE REINFORCED POLYMER COMPOSITES FOR SPACE APPLICATIONS GUEDES PINTO Joana - PRUDÊNCIO Joana - BALDAIA Margarida - INEGI - PT KONSTANTOPOULOS Georgios - TERMINE Stefania - SEMITEKOLOS Dionysis - RNANO Lab - GR SIMON Zoltan - SCHEERER Michael - AAC- Aerospace & Advanced Composites GmbH - AT CHARITIDIS Costas - RNANO Lab - GR - ROCHA Nuno - SANTOS Raquel M. - INEGI/LAETA - PT	052 STRUCTURAL HEALTH MONITORING TO INCREASE THE RELIABILITY OF REUSABLE LAUNCHER MATERIALS WHITEHOUSE Holly - FGE - GB ASADI Sina - Imperial College London - GB EVANS David - FGE - GB LANGE Harald - MT Aerospace AG - DE MERRIFIELD James - FGE - GB SHARIF KHODAEI, Zahra - Imperial College London - GB TESCH Andreas - ESA-ESTEC - NL	175 CONVOLUTIONAL RECURRENT NEURAL NETWORKS FOR PROCESS-STRUCTURE COUPLING OF ADVANCED MANUFACTURED PARTS MALLON Michael - ESA - NL ROTULO Monica - SURF - NL LUCZYNIC Dawid - ROHR Thomas - ESA - NL
10h35	Coffee break / Poster session / Exhibition			
Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Products & Applications - 2/2	Composites - Launchers	Environmental testing - Mechanical tests campaigns	Analysis & Design - Payload design, development & verification
	CHAIRS: OLAYA LEON Isabel - ESA - NL CHIAMPI Massimo - THALES ALENIA SPACE - IT	CHAIRS: MARTIN Joaquin - AIRBUS - ES BISAGNI Chiara - TU Delft - NL	CHAIRS: CANE Luca - ESA - NL SEEFELDT Patric - DLR - DE	CHAIRS: HOT Aurélien - CNES - FR BARTOSCH Eric - ESA - NL
11h00	010 OPTIMIZED XXL PRINTED STRUCTURAL PANEL WITH EMBEDDED THERMAL CONTROL MONTREDON Florence - CABANNES KARINE - LABARTHE Julien - POMMATAU Gilles - RAYNAUD Martin - THALES ALENIA SPACE - FR SPATARO Richard - ADDUP - FR GIRAUD Landry - TRA-C Industrie - FR	221 DESIGN, ANALYSIS, AND MANUFACTURING OF A GRID-STIFFENED CFRP INTERSTAGE FOR A COMMERCIAL LAUNCHER SMEETS Bart - MURRAY Brendan - ATG Engineering B.V. - NL DE GIER Frank - Airborne Aerospace B.V. - NL RAUWS Jeroen - ATG Engineering B.V. - NL RIJCKMANS Lex - Airborne Aerospace B.V. - NL	181 ENVIRONMENTAL TEST CAMPAIGN OF EARTHCARE FURLAN Beatrice - KARL Andreas - OLYMPIO Raymond - AIRBUS - DE SHANNON Aisling - ESA-ESTEC - NL	150 ARIEL PAYLOAD STRUCTURAL ARCHITECTURE: DESIGN, ANALYSIS AND VERIFICATION CHALLENGES BRUZZI Davide - WHALLEY Martin - FOK Sandy - CALDWELL Andrew - DESJONQUERES Lucile - BISHOP Georgia - ECCLESTON Paul - STFC - RAL Space - GB JOLLET Delphine - KNOCKAERT Robert - FAHMY Salma - ESA - NL

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
11h25	183 I 3D PRINTED PIPES INCLUDING SENSORS AND HEATERS FOR THERMAL MANAGEMENT SYSTEMS IN SPACE AND ON EARTH SAUDAN Hervé - ROUVINET Julien - NOVO David - KIENER Lionel - MOESCHLER Basile - BLONDIAUX Nicolas - KHAN Saleem - CSEM SA - CH MANOLI Chrysoula - PETAGNA Paolo - CERN - CH MONTREDON Florence - THALES ALENIA SPACE - FR RENECORAIL Alexis - LISI Aerospace Additive Manufacturing - FR EYRIGNOUX Sébastien - LISI Aerospace Additive Manufacturing - FR VENTURA Joao - inanoEnergy - PT HAFNER Armin - NTNU - NO	036 I A GLOBAL-LOCAL DEFECT/DAMAGE INITIATION AND PROPAGATION MODEL FOR LAUNCHER COMPOSITE STRUCTURES PRE-SIZING TAILLEUR Alexy - CNES, ICA - FR MATHIS Kévin - CNES - FR ROGANI Ange - CT Ingenierie - FR NAVARRO Pablo - MARGUET Steven - FERRERO Jean-François - ICA - FR	059 I MECHANICAL TEST CAMPAIGN ON FLEX S/C PFSM DI CARLO Antonio - ANGUITA JIMÉNEZ Carlos - Beyond Gravity Schweiz AG - CH BERRILL Mark - ESA-ESTEC - NL JACOPINI Cedric - THALES ALENIA SPACE - FR	061 I SMILE PLM MECHANICAL QUALIFICATION TEST APPROACH SÁNCHEZ-PASCUALA VALENCIA Daniel - AIRBUS - ES
11h50	228 I STAINLESS STEEL MINI-LHP EVAPORATOR FULL ALM COQUARD Typhaine - CARPONCIN Delphine - LASCOMBES Baptiste - AIRBUS D&S - FR BOUDIER Guillaume - CNES- FR SPATARO Richard - BETOURNE Maxime - ADD-UP - FR	103 I MATURATION OF SELECTED AND PROMISING CFRP- TECHNOLOGIES FOR BARE TANKS AND STRUCTURES OF A REPRESENTATIVE FUTURE LAUNCHER UPPER STAGE DEMONSTRATOR WOLFF Marina - MT Aerospace AG - DE QUADT Markus - ARIANE GROUP GmbH - DE	051 I PLATO OPTICAL BENCH MECHANICAL TEST CAMPAIGN KRÜSI Stephan - GURY Lionel - Beyond Gravity - CH NICOLAY Oliver - OHB System AG - DE TETI Daniele - KEEREMAN Arnoud - European Space Agency - NL	
12h15	169 I ADDITIVELY MANUFACTURED FLEXIBLE PIVOTS FOR CRYO APPLICATION KIENER Lionel - LANG Guilain - SAUDAN Hervé - KALENTICS Nicholas - CSEM - CH LALLEMAND Etienne - THIBERT Tanguy - PLESSERIA Jean-Yves - CSL - BE	205 I INVESTIGATION OF THE THERMAL CYCLING DURABILITY OF COBONDED PIEZOELECTRIC SENSORS FOR THE SHM OF REUSABLE LAUNCH VEHICLES MASTROMATTEO Loïc - GAVERINA Ludovic - ONERA - FR LAVELLE Florian - CNES - FR ROCHE Jean-Michel - IRISARRI François-Xavier - ONERA - FR		247 I VERIFICATION OF THE SENTINEL-5 UV1 SPECTROMETER MECHANICAL DESIGN THROUGH ANALYSIS AND QUALIFICATION TESTS DE VREUGD Jan - TNO - NL
12h40	144 I COREIMPACT: NEW CORE CONCEPT FOR HYPERVELOCITY IMPACT SHIELD DUQUE LOPEZ INDALECIO - CiTD - ES HERNANDEZ ALVAREZ Lidia - CiTD - ES	208 I TOWARDS QUALIFICATION OF COMPOSITE LAUNCHER STRUCTURES BY SIMULATION FATEMI Javad - POORT Gerard - AIRBUS D&S - NL	125 I DEVELOPMENT & TESTING OF THE IBDM HCS SYSTEM FOR ISS SAN MARTIN Laura - YBARRA Gabriel - JUSTO David - SENER Aeroespacial - ES	097 I DEVELOPMENT OF A DISSIPATIVE STRUCTURE TO DAMP MMX ROVER'S IMPACT ON PHOBOS LEMAY Simon - CNES - FR GAILLARD Yves - CETIM-CTIF - FR
13h05	Lunch / Poster session / Exhibition			

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Non metallic - 1/2	Composites - Tanks	Environmental testing - Thermal test Means	Deployable Structures - Solar Array
	CHAIRS: CARPONCIN Delphine - AIRBUS D&S - FR VOREL Michal - ARIANE GROUP - DE	CHAIRS: NEVES Denis - ESA & ATG Europe B.V - NL LUCARELLI Stefano - AIRBUS - DE	CHAIRS: SCHNEIDER Alf - ESA - NL GOAVEC Emmanuelle - ETS B.V. - NL	CHAIRS: LEGRAND Silvain - THALES ALENIA SPACE - FR STRAUBEL Marco - DLR - DE
14h15	197 I METALLIC COATING OF FIBER REINFORCED POLYMERS USING SEPARATE POWDER INJECTED LASER APPLICATION KOSS Stephan - GRIGAT Niels - GRIES Thomas - SCHLEIFENBAUM Johannes Henrich - RWTH Aachen University - DE	232 I CRACK MORPHOLOGY IN THERMO-MECHANICALLY LOADED THERMOPLASTIC COMPOSITES FOR CRYOGENIC APPLICATIONS HOSSEINI Amin - ATLI-VELTIN Bilim - DRANSFELD Clemens - TU Delft - NL	223 I WIDE RANGE THERMAL TEST FACILITY RESULTS FOR EUROPA CLIPPER PVA QM AND FM YOKES THIBERT Tanguy - KELLENS Anthony - LIEBECQ Sylvie - LE VAN Bao Long - CSL - ULiege - BE STRASSER Werner - AIRBUS D&S GmbH - DE VAN DER KANT Wolter - AIRBUS D&S NL - NL GRODENT Christophe - CSL - ULiege - BE	210 I A NOVEL ROLLABLE, DEPLOYABLE AND RETRACTABLE SOLAR ARRAY STRUCTURE. HILLEBRANDT Martin - STRAUBEL Marco - ZANDER Martin - HUEHNE Christian - DLR - DE
14h40	076 I ENHANCED ADDITIVE MANUFACTURING OF PEEK STRUCTURES IN VACUUM - A LOW POWER CONCEPT FOR IN ORBIT MANUFACTURING OF LONG SPACE ENVIRONMENT RESISTANT STRUCTURES KÜHN Marvin - KÜHN-KAUFFELDT Marina - UniBwM - DE	185 I ANALYSIS OF CREEP INFLUENCE IN PLASTIC LINERS FOR TYPE IV COMPOSITE OVERWRAPPED PRESSURE VESSELS GARCIA MARTINEZ Adrian - CNES - FR DA SILVA André - ESA - FR BAMSEY Nathan - GIROLAMO Donato - ESA - NL DELILLE Bruno - VOREL Michal - ARIANE GROUP - DE LUNDEN Rüdiger - WINTER Michael - ETC Deutschland - DE	024 I RESULTS OF CRYOGENIC ADHESIVE CHARACTERIZATION LEITWEIN Marco - KRP Mechatec GmbH - DE REILLING Karl - Hochschule Landshut - DE JANIĆ Premysl - European Space Agency (ESA) - NL	048 I SOLAR ARRAYS DEPLOYMENT KINEMATIC ANALYSIS WITH TEST CORRELATION SANCHEZ Nicolas - BURES Nicolas - CHARVET Benoit - hemeria - FR
15h05	001 I A NOVEL ROUTE TO PRODUCE METAL OR CERAMIC PARTS IN SPACE: DEBINDING AND SINTERING HIGHLY FILLED POWDERED FILAMENTS IN-SITU ORTEGA Manuel - BARDENHAGEN Andreas - Institut für Luft- und Raumfahrt, TU Berlin - DE PAMBAGUIAN Laurent - ROHR Thomas - Materials Technology, ESA – ESTEC - NL STOLL Enrico - Institut für Luft- und Raumfahrt, TU Berlin - DE	063 I MICRORESIDUAL STRESS ANALYSIS FOR TRANSVERSE CRACK INITIATION IN CFRP PRESSURE VESSELS TEIXEIRA GONCALVES Paulo - Institute of Science and Innovation in Mechanical - PT ARTEIRO Albertino - Dept. de Engenharia Mecânica, Faculdade de Engenha - PT ROCHA Nuno - PINTO CARVALHO Rodrigo - Institute of Science and Innovation in Mechanical - PT	093 I INFRARED THERMOGRAPHY AT LOW TEMPERATURE ROOSE Stephane - VANDENRIJT Jean-François - Centre Spatial de Liège - BE CASAROSA Gianluca - European Space Agency - NL	094 I THE DEAR 100W DEPLOYABLE SOLAR ARRAY FOR SMALLSATS SPROEWITZ Tom - SEEFELDT Patric - REERSHEMIUS Siebo - WOODS Nicholas - HOLZ Sven - German Aerospace Center - DE TOKARZ Marta - GRYGORCZYK Jerzy - TORCHALA Piotr - NOLBERT Dominik - Astronika z.o.o. - POLAND KUBERA Tim - AZUR SPACE Power GmbH - DE
15h30	138 I 3DPRINTING OF SEVERAL TECHNOLOGIES IN ONE: A NEW APPROACH TO SHAPE CERAMICS INCLUDING SILICON CARBIDE MALSALLEZ Kareen - 3DCERAM SINTO - FR ROUX Arnaud - 3DCERAM SINTO - FR	212 I MATERIAL CHARACTERISATION OF CFRP LAMINATES AT CRYOGENIC CONDITIONS FOR A LINERLESS TANK PINTO CARVALHO Rodrigo - GONÇALVES Paulo T. - INEGI - PT	187 I IMPLEMENTATION OF A MOBILE FULL-RANGE THERMAL CONTROL SYSTEM FOR SPACE QUALIFICATION THERMAL-VACUUM TESTS WINTER Daniel - DIETERICH Patrick - DÖRING Daniel - GEISELMANN Felix HAGEMANN Lennert - SAWATZKI Jan-Henrick - ZIRNGIBL Stefan - IABG - DE	234 I THE DEAR 100W STOWABLE SOLAR ARRAY DEPLOYER TOKARZ Marta - GRYGORCZYK Jerzy - TORCHALA Piotr - NOLBERT Dominik - Astronika sp z o.o. - POLAND SPROEWITZ Tom - SEEFELDT Patric - REERSHEMIUS Siebo - German Aerospace Center (DLR) - DE

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
15h55	069 BIOLOGICALLY INSPIRED 4D PRINTED PROGRAMMABLE COMPOSITES GRABOW Monia - LE DUGOU Antoine - CASTRO Mickael - Univ Bretagne Sud - FR SCARPA Fabrizio - Univ of Bristol - GB DELIA Raffaele - IRT Saint Exupery - FR DIRRENBARGER Justin - PIMM CANM PARIS - FR LAFONT Ugo - ESA - NL		189 A NEW THERMAL-VACUUM CHAMBER TO HOUSE STATE OF THE ART OPTICAL QUALIFICATION TESTS SCHINDLER Reinhard - SÖLLNER Bastian - ZIRNGIBL Stefan - DÖRING Daniel - IABG - DE	
16h20	Coffee break / Poster session / Exhibition			
Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Non metallic - 2/2	Composites - Failure analysis & Numerical methods - 1/2	Lattice structures - 1/3	Deployable Structures - Solar Array & Other deployable sub-systems
	CHAIRS: CARPONCIN Delphine - AIRBUS D&S - FR ROHR Thomas - ESA - NL	CHAIRS: HOLZ Matthias - AIRBUS D&S - DE MATHIS Kevin - CNES - FR	CHAIRS: BEEVERS Emilie - KU Leuven - BE LANGE Michael - DLR - DE	CHAIRS: HILLEBRANDT Martin - DLR - DE CARDONE Tiziana - ESA - NL
16h45	081 ENABLING INTER AND INTRA LAYER CHOPPED GLASS FIBRE DEPOSITION DURING THE LASER SINTERING PROCESS DE CONINCK Hellen - MEYERS Sebastian - BULS Sam - VAN PUYVELDE Peter - VAN HOOREWEDER Brecht - KU Leuven - BE	106 EXPERIMENTAL INVESTIGATION AND NUMERICAL MODELLING OF THE VISCOELASTIC BEHAVIOUR OF BASED-SPREAD TOW FABRIC COMPOSITE MATERIAL FOR BOOM APPLICATION PALMERI Flavia - LAMBERTINI Lucia - LAURENZI Susanna - Sapienza Univ. of Rome - IT	012 SPECIMEN DESIGN FOR TENSILE LOAD INTRODUCTION INTO LATTICE STRUCTURES GREINER Matthias - JUNG Justin - MEYER Guillaume - MITTELSTEDT Christian - KLuB - TU Darmstadt - DE	038 THE DEAR 100W STOWABLE SOLAR ARRAY BLANKET SEEFELDT Patric - HOLZ Sven - SASAKI Kaname - SPROEWITZ Tom - Mechanics and Thermal Systems, DLR Institute of Sp - DE
17h10	033 LASER POWDER BED FUSION OF HIGH STIFFNESS TITANIUM BASED METAL MATRIX COMPOSITE FOR SPACE APPLICATIONS BERNARD Gaëtan - PEJCHAL Vaclav - CSEM - CH LAURENT Pambaguian - ESA - NL LOGÉ Roland - EPFL - CH SEREDA Olha - CSEM - CH	111 PROBABILISTIC ANALYSIS AND INTEGRITY ASSESSMENT OF FILAMENT WOUND CFRP PRESSURE VESSELS ACCOUNTING FOR STOCHASTICALLY DISTRIBUTED MICRO DEFECTS BECKMANN Carla - FINDEISEN Claudio - SCHOBBER Michael - Fraunhofer IWM - DE JUDT Paul - Hexagon Purus GmbH - DE JATZLAU Philipp - RayScan Technologies GmbH - DE SCHÄUBLE Ralf - HOHE Jörg - Fraunhofer IWM - DE	029 LIGHTWEIGHT HIGH-STIFFNESS AUXETIC ANISOTROPIC LATTICE METAMATERIALS FOR SPACE STRUCTURE VIBRATION CONTROL HUINA Mao - TIBERT Gunnar - KTH Royal Institute of Technology - SE ZIXING Fu - BINGLUN Yin - Institute of Applied Mechanics and Center for X-Mechanics - CN	020 DESIGN AND DEVELOPMENT OF A NOVEL DEPLOYMENT METHOD FOR THIN CFRP COMPOSITES AYRES Henry - CIAMPA FRsco - VIQUERAT Andrew - Univ. of Surrey - GB

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
17h35	041 DESIGN AND TOPOLOGY OPTIMIZATION OF THE PRIMARY STRUCTURE OF A 6U CUBESAT USING 3D PRINTED CONTINUOUS CARBON FIBRE REINFORCED PA6 COMPOSITE PANELS MOUTINHO Mário - Bruno AUGUSTO,1 Pedro FERNANDES,1 Rui MARQUES,1 Nuno ROCHA - INEGI - PT	213 CURVATURE ANALYSIS OF ASYMMETRIC SPECIMENS FOR THE RESIDUAL STRESS QUANTIFICATION IN FIBER METAL LAMINATES SCHMIDT Jan-Uwe Reinhard - WIEDEMANN Johannes - TU Braunschweig - DE HÜHNE Christian - Deutsches Zentrum für Luft-und Raumfahrt - DE	087 INVESTIGATIONS ON MECHANICAL PROPERTIES OF TA6V DODE-THIN LATTICE SANDWICH BEAMS FABRICATED BY POWDER BED LASER BEAM MELTING PROCESS GUY Philippe - DORIVAL Olivier - Icam - FR PÉREZ Marco - IQS - Ramon Llull Univ. - ES PÉRIÉ Jean-Noël - Clément Ader Institute - FR FABRIÈS Christophe - THALES ALENIA SPACE - FR MICHON Guilhem - Clément Ader Institute - FR	238 ZERO-G EXPERIMENTS OF THE BIONIC WINGSAT - A 2U-CUBESAT WITH DEPLOYABLE, BIOLOGICALLY-INSPIRED WINGS ZANDER Martin - DLR - DE CHAMBERLAIN Matthew - NASA - US JOST Dominic - MÜLLER Daniel - STRAUBEL Marco - DLR - DE
18h00		005 WRINKLING IN CFRP SANDWICH PANELS: PROPOSED FORMULATION BASED ON EDGEWISE COMPRESSION TESTS ELGUEA Mikel - AIRBUS D&S - ES	022 COMPOSITE ISOGRID SATELLITE CENTRAL TUBE DIAZ Victor - VILANOVA Jorge - AIRBUS D&S - ES DAS Shumit - GIROLAMO Donato - ESA-ESTEC - NL	
19h30	Conference Gala Dinner Espace Vanel - Do not forget your badge			

THURSDAY 30 MARCH

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	Analysis & Design - Structural Analysis & Design	Joints & Inserts (including ALM)	Lattice structures - 2/3	Space Sustainability
	CHAIRS: COE Graham - ESA - NL MIERHEIM Olaf - DLR - DE	CHAIRS: TORRES Marina - CNES - FR ROHEL Daniel - OHB Czechspace - CZ	CHAIRS: BARRIERE Ludovic - IRT Saint Exupery - FR DIAZ Victor - AIRBUS D&S - ES	CHAIRS: DUMITRESCU Adrian - Univ. of Southampton - GB HILLEBRANDT Martin - DLR - DE
08h30	147 HYPER-VELOCITY IMPACTS MODELLING USING SPH PARTICLES FOR THE COMET INTERCEPTOR DUST SHIELD MUSSITA Andrea - SANZ CASADO Alvaro - RIVA Nicola - OHB System AG - DE HALLSTRÖM Stefan - Department of Engineering Mechanics, KTH - SE TRICKOV Vladimir - ROBERT Adrien - Altair Engineering FR - FR	168 CFRP PANEL WITH FLEXIBLE METALLIC INSERT ALIPRANDI Manuel - FERRARI Michael - BEYOND GRAVITY - CH	127 IMPLEMENTING HIGH STRENGTH ALUMINIUM LATTICE STRUCTURES WITH GRADIENT IN RELATIVE DENSITY IN BULK COMPONENTS PRODUCED BY LASER POWDER BED FUSION BEEVERS Emilie - CUTOLO Antonio - VAN HOOREWEDER Brecht - KU LEUVEN - BE	018 DESIGN FOR DEMISE (D4D) AND DESIGN FOR CONTAINMENT (D4C) TECHNOLOGIES FOR THE REDUCTION OF THE DEBRIS CASUALTY AREA: IMPLEMENTATION ON A MICROSATELLITE AND GAIN EVALUATION WITH DEBRISK AND PAMPERO SOF PASQUIER Helene - ANNALORO Julien - PASQUIER Pierre - OMALY Pierre - CNES - FR SPEL Martin - RTech - FR HEINRICH Stephane - ENOVA AEROSPACE - FR DUMON Jeromine - CONSTANT Eddy - RTech - FR HUMBERT Arthur - ENOVA AEROSPACE - FR
08h55		115 ENHANCING SATELLITE INSTRUMENTATION INTEGRATION PROCESS BY EXPLORING JOINT NON-LINEAR DOMAIN KRUEGER Iven - USTAMUJIC Faris - AIRBUS D&S GmbH - DE	170 EFFECT OF UNIT CELL TOPOLOGY ON THE FATIGUE PERFORMANCE OF ALUMINIUM LATTICE STRUCTURES PRODUCED BY L-PBF CUTOLO Antonio - KU Leuven, AM GROUP - BE BEEVERS Emilie - KU Leuven - BE	090 EVALUATING THE SHIELDING CAPABILITY OF STANDARD AND REINFORCED MULTI-LAYER INSULATION WITH STAND-OFF AGAINST SPACE DEBRIS IMPACTS PUILLET Christian - CNES - FR BOUAT Dylan - THIOT-INGENIERIE - FR

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
09h20	216 MECHANICAL JUSTIFICATION OF SPACECRAFT COMPONENTS – USING MODULAR APPROACH WITH AID OF SUPERELEMENTS RAMANOLLA Vasu - MEITZNER Robert - GAJDACZ Robert - ARIANE GROUP - DE	179 THERMAL CONDUCTIVITY CHARACTERIZATION OF A CFRP SINGLE-LAP JOINT LANGE Michael - BATURKIN Volodymyr - HÜHNE Christian - MIERHEIM Olaf - DLR - DE	017 NUMERICAL METHOD FOR ENERGY ABSORPTION MAXIMIZATION IN LATTICE STRUCTURES AND EXPERIMENTAL VALIDATION LISENI Stefania - COLUCCIA Antonio - Technical Univ. of Turin - IT MEYER Guillaume - MITTELSTEDT Christian - Technical Univ. of Darmstadt - DE DE PASQUALE Giorgio - Technical Univ. of Turin - IT	194 PARAMETRIC EXPERIMENTAL STUDY OF HYPERVELOCITY IMPACT AGAINST ALUMINIUM WHIPPLE SHIELDS FÆRGESTAD Rannveig Marie - NTNU Trondheim - NO OLIVIERI Lorenzo - GIACOMUZZO Cinzia - LOPRESTI Stefano - FR SCONI Alessandro - CISAS "G. Colombo", Univ. of Padova-IT CARDONE Tiziana - European Space Agency (ESA), ESTEC - NL FORD Kevin A. - National Aeronautics and Space Administration - US HOLMEN Jens K. - Enodo AS - NO HOPPERSTAD Odd S. - BØRVIK Tore - Structural Impact Laboratory (SIMLab), NTNU - NO
09h45	173 DETERMINATION OF BUCKLING STRENGTH OF AN INTERSTAGE WITH IMPERFECT ISOGRID STIFFENER RIBS YETGIN Ali - ACAR Bülent - FENERCIOGLU Tevfik Ozan - REPKON - TR	153 CFRP STRUTS WITH ALUMINIUM SLEEVES USING CMT-PINS: RESULTS OF MECHANICAL AND THERMO-STABILITY TESTS UNGER Michael - UCSNIK Stephan - LKR Leichtmetallkompetenzzentrum Ranshofen GmbH - AT PIETTE Thierry - Sonaca Group - BE JOSTEN Joel - UHL Albert - GMT Gummi-Metall-Technik GmbH - DE RODRIGUES Gonçalo - ESA/ESTEC - NL	025 STRAIN-BASED METHOD FOR FATIGUE FAILURE ANALYSIS OF TRUSS LATTICE STRUCTURES: MODELING AND EXPERIMENTAL SETUP COLUCCIA Antonio - DE PASQUALE Giorgio - Technical Univ. of Turin - IT	091 ON-GROUND HYPERVELOCITY IMPACT ON A NANOSATELLITE. NEW FRAGMENTS CHARACTERIZATION AND UPDATED IMPACT SIMULATIONS PUILLET Christian - CNES - FR BABOURI Karim - R.TECH - FR COLLÉ Anthony - LIMIDO Jérôme - IMPETUS AFEA - FR MIDANI Iko - R.TECH - FR OMALY Pierre - CNES - FR SPEL Martin - R.TECH - FR UNFER Thomas - IMPETUS AFEA - FR
10h10	145 SPACECRAFT STRUCTURES WITH ALUMINUM PANELS ELIOT Fabienne - BRUNET Remi BARDET Valentine - AIRBUS D&S - FR	089 DEVELOPMENT OF ADHESIVE JOINTS FOR CRYOGENIC GLASS OPTICS MOUNTING TO BE USED IN ARIEL FGS MOCHOL Aleksandra - TRZEPALKA Radoslaw - BIALEK Agata - SRC PAS - PL CZUPALLA Markus - FH Aachen, Univ. of Applied Sciences - DE FULARA Marianna - KURYLOWICZ Lukasz - RATAJ Mirosław - SRC PAS - PL ROCKSTEIN Steve - ESE-Consulting - DE SOBIECKI Mateusz - SRC PAS - PL JANIK Premysl - ESA - NL LEITWIEN Marco - KRP Mechatec GmbH - DE		244 A METHODOLOGY FOR STUDYING THE STRUCTURAL RESPONSE OF A SC SUBJECTED TO HYPER VELOCITY IMPACTS CARDONE Tiziana - ESA - NL HARAZIM Mateusz - BISAGNI Chiara - TU Delft - NL
10h35	Coffee break / Poster session / Exhibition			

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	Environmental testing - New approaches	Dynamics analyses - 1/2	Isolation & Damping	Microvibrations
	CHAIRS: PUILLET Christian - CNES - FR RIVA Nicola - OHB System - DE	CHAIRS: DUPUIS Paul-Eric - AIRBUS D&S - FR EROGLU Baris - OHB AG - DE	CHAIRS: CORBERAND Philippe - AIRBUS D&S - FR FRANSEN Sebastiaan - ESA - NL	CHAIRS: BRICOUT Lucie - ESA - NL CARTE Gilles - THALES ALENIA SPACE - FR
11h00	130 QUANTITATIVE COMPARISON OF SINGLE, THREE AND SIX DEGREE OF FREEDOM SPACE STRUCTURES VIBRATION TESTING NATH Narendra - YOTOV Vladimir - Univ. of Auckland - NZ AGLIETTI Guglielmo - Director - NZ	080 NSTF SHAKER COMMISSIONING USING RESONANT MASS DUMMY KNIGHT Charly - FIEDLDING Thomas - OXBORROW Matt - HORSFALL Ian - RAL Space - STFC - GB	068 RETRO-FIT PARTICLE DAMPERS FOR PANELS IN SPACE STRUCTURES LORD Charles - RONGONG Jem - Univ. of Sheffield - GB KILEY Andy - AIRBUS D&S - GB TERZIOGLU Furkan - Univ. of Sheffield - GB	186 ASSESSMENT OF THE X-IFU SUSCEPTIBILITY TO MICROVIBRATION GANT Florent - MARELLI Lorenzo - PUILLET Christian - ANDRE Jérôme - MAUSSANG Irwin - PEILLE Philippe - CNES - FR JACKSON Brian - VAN WEERS Henk - SRON NL Institute for Space Research - NL VARGALUI Alexandru - FRANSEN Sebastiaan - ESA - NL
11h25	191 DEVELOPMENT AND IMPLEMENTATION OF A NEW 4 SHAKER VIBRATION SYSTEM AT IABGMBH BAUMGARTL Ralf - IABG - DE	254 DYNAMIC BEHAVIOUR STUDY OF A SATELLITE PROPELLANT TANK USING NUMERICAL AND EXPERIMENTAL VIBRATORY TESTS PIERROT Thomas - Dynas+ Group - FR CHAMBE Jean-Emmanuel - Institut Clément Ader - FR CHARLOTTE Miguel - GOURINAT Yves - ISAE-SUPAERO - FR GUILPIN Antoine - LAPOUJADE Vincent - LEGAUD Tess - Dynas+ Group - FR	239 DAMPED SUPPORT STRUTS FOR OPTOMECHANICAL INSTRUMENTS ENABLED BY ADDITIVE MANUFACTURING VAN KEMPEN Floris - DE VREUGD Jan - MISIUN Grzegorz - VAN SCHREVEN Eleonie - CROWCOMBE Will - VAN DER TOGT Oana - TNO - NL MAASKANT Arjen - DISTELBRINK Marcel - PRONK Hans - ERIKS - NL SMETS Jarn - SKA Robin - 3D Systems - BE	128 MICROVIBRATION INTERFACE REQUIREMENT DERIVATION FOR THE ATHENA 2K CORE VARGALUI Alexandru - FRANSEN Sebastiaan - ESA - NL GANT Florent - MAUSSANG Irwin - CNES - French Space Agency - FR JACKSON Brian D. - VAN WEERS Henk J. - SRON NL Institute for Space Research - NL
11h50	256 MULTIAXIS RANDOM VIBRATION TEST - A NEW VERIFICATION APPROACH FOR SPACE INSTRUMENT PART I – THE TEST CAMPAIGN NGAN Ivan - ESA / ESTEC - NL	108 AEROELASTIC STABILITY AND RESPONSE OF AN UNCONTROLLED LAUNCH VEHICLE WITH NOZZLE DYNAMICS MASTRODDI Franco - PASQUALI Michele - SALTARI FRsco - PIANO Matteo - Sapienza Univ. - IT BARBAGALLO Daniele - ESRIN, European Space Agency - IT	192 DESIGN OF VIBRATION ATTENUATORS BASED ON VIBRO-IMPACTED ACOUSTIC BLACK HOLE ADAPTED TO PYROTECHNIC SHOCKS LI Haiqin - O'DONOGHUE Patrick - PELAT Adrien - GAUTIER François - Lab of Acoustics of the Univ. of Le Mans, LAU - FR TOUZE Cyril - Institute of Mech. Sciences & Indust. Applications - FR MASSON Florent - ACOEM FR SAS - FR	026 IMPROVEMENT OF MICRO VIBRATION MEASUREMENT BY FRF SYNTHESIS CAVRO Etienne - DUPUIS Paul-Eric - AIRBUS D&S - FR GANT Florent - HOT Aurélien - CNES - FR

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
12h15	141 I SPACECRAFT PROPELLANT TANK CONFIGURATION AND FEM CORRELATION DUBANCHET David - LABORDE Sébastien - AIRBUS D&S Toulouse - FR - HOFMANN Martin - AIRBUS D&S Toulouse - FR	044 I DEVELOPMENT OF DISCRETE VIBRATION ABSORBERS FOR ARIANE6 BREVIERE Frédéric - PETITJEAN Benoit - ARIANE GROUP - FR	054 I VIBRO-ACOUSTIC META-MATERIALS FOR VIBRATION ATTENUATION IN SATELLITES DE VIVO Alessio - HELORET Pierrick - SAMOIL Moritz - OHB System AG - DE MANUSHYNA Daria - Fraunhofer Institute for Structural Durability - DE KUISL Alexander - OHB System AG - DE ATZRODT Heiko - Fraunhofer Institute for Structural Durability - DE RAPP Stephan - OHB System AG - DE HÜLSEBROCK Moritz - Fraunhofer Institute for Structural Durability - DE	190 I MICROVIBRATION TESTS AT IABG - INFLUENCES FROM TEST EQUIPMENT AND TEST SETUP LECHELMAYR Thomas - IABG mbH - DE
12h40	135 I WATER AS SIMULANT FLUID FOR SPACECRAFT VIBRATION TEST MATOS Francisca - OHB Czechspace s.r.o - CZ EROGLU Baris - SEGELKE Harald - OHB System AG - DE HAMPL Timothy - OHB System AG - CZ	154 I STRAIN ENERGY PROPORTIONAL DAMPING FOR MODAL FREQUENCY RESPONSE MODELS CASTEL Alexis - GARDNER Bryce - ESI Group - US CALLONI Massimiliano - ESI Group - IT	092 I EXPERIMENTAL DYNAMIC ANALYSIS OF AEROSPACE EQUIPMENT ATTACHED USING RECLOSABLE FASTENERS FOURNIER Lisa - SANCHES Leonardo - ISAE-SUPAERO - FR FOUCAUD Simon - CNES - FR MICHON Guilhem - ISAE-SUPAERO - FR	099 I NUMERICAL AND ANALYTIC CHARACTERIZATION OF SATELLITE MICROVIBRATION PRODUCED BY BALL BEARINGS LONGATO Mattia - HUGHES Thomas - VLADIMIR Yotov - AGLIETTI Guglielmo - Auckland Univ. - NZ
13h05	Lunch / Poster session / Exhibition			
Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Material properties	Dynamics analyses - 2/2	Thermo-Elastics - 1/2	Shock - 1/2
	CHAIRS: SCHMIDT Jan-Uwe Reinhard - DLR e.V. - DE SINNEMA Gerben - ESA-ESTEC -NL	CHAIRS: MOUREY Patrick - CNES - FR DI MAIO Dario - Univ. of Twente - NL	CHAIRS: PUILLET Christian - CNES - FR ROHEL Daniel - OHB Czechspace - CZ	CHAIRS: VARGALUI Alexandru - ESA - NL BREVART Bertrand - THALES ALENIA SPACE - FR
14h15	007 I DEVELOPMENT OF ADDITIVE MANUFACTURING WITH SCALMALLOY, A HIGH STRENGTH ALUMINIUM ALLOY VANDEVELDE Simon - CNES - FR CHOUTEAU Estelle - MONTREDON Florence - THALES ALENIA SPACE - FR EYRIGNOUX Sébastien - LISI AEROSPACE ADDITIVE MANUFACTURING - FR FIORE Giuseppe - CNES - FR	140 I USE OF AN ACCELERATED BEM METHOD (H-MATRIX) TO IMPROVE PERFORMANCE OF COUPLED STRUCTURAL BEM-FEM RESPONSE PREDICTIONS FOR SPACE APPLICATIONS MUSSER Chadwyck - ESI Group - US GUAN Yi - LEFEBVRE Johnny - MEBAREK Lassen - ESI Group - FR CALLONI MASSIMILIANO - ESI Group - IT PALACIOS DOMINGO Juan Pedro - ESI Group - ES GARDNER Bryce - ESI Group - US	078 I EUROPEAN GUIDELINES FOR THERMO ELASTIC VERIFICATION DE CILLIA Mathieu - THALES ALENIA SPACE - FR VAN OOSTRUM Alexander - PEMAN Alberto - GONZALEZ-LLANA Arturo - ATG Europe BV - NL RAPP Stephan - MESCHENMOSER Matthias - OHB system AG - DE MARESCHI Vincenzo - DE PALO Savino - PERACHINO Luca - THALES ALENIA SPACE - IT APPEL Simon - ESA - NL	073 I SHOCK TEST DATABASE AND PREDICTIVE TOOL PERRIQUET MAXIME - HOFMANN Martin - CAMARASA Patrick - LE MOIGNE Julien - AIRBUS D&S Toulouse - FR PERRIQUET Maxime - Defence and space - FR
14h40	050 I NANO-MODIFICATION OF LIGHT ALLOYS FOR ADDITIVE MANUFACTURING BOJAREVICS Andris - NIKOLAS Alexey - TATARINOV Alexey - KALVANS Matiss - 2AM Ltd. - LV	102 I NON-LINEAR DYNAMIC COUPLING BETWEEN A SATELLITE STRUCTURE AND THE ELECTRICAL HARNESS CADIOT Xavier - AIRBUS D&S - FR SANCHES Leonardo - ISAE-Supaéro - FR HOT Aurélien - CNES - FR MOUYSSSET Alexandre - AIRBUS D&S - FR MICHON Guilhem - ISAE-Supaéro - FR	171 I THE EFFECTS OF LOCAL THERMAL GRADIENTS TO THE POINTING PERFORMANCE OF THE COPERNICUS CO2M MAP INSTRUMENT LAMACCHIA Ettore - HILLIER Fiona - SAAD Andrea - DELMAS Anthony - SPILLING David - TAS-UK - GB APPEL Simon - ESA/ESTEC - NL	075 I INSTRUMENT SHOCK CRITICALITY ASSESSMENT & RISK MITIGATION HOFMANN Martin - CAMARASA Patrick - LE MOIGNE Julien - BRUNO Simon - AIRBUS D&S Toulouse - FR

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
15h05	248 I SURFACE FEATURES OF AS-BUILT METAL ADITIVE ALSI7MG0.6 BUCHENAU Theresa - Fraunhofer IFAM - DE THOMPSON Adam - Univ. of Nottingham - GB BRÜNING Hauke - AMKREUTZ Marc - Fraunhofer IFAM - DE MAYER Bernd - Univ. of Bremen - DE PIANO Samanta - Univ. of Nottingham - GB	159 I EFFICIENT COMPUTATION OF SOUND ABSORPTION IN PANEL STRUCTURES WITH POROUS CAVITIES ROY Nicolas - TOP MODAL - FR GERMES Sylvain - Saint-Gobain Research Compiègne - FR	104 I PRACTICAL EXAMPLE OF A THERMO-ELASTIC CLASSIFICATION SYSTEM GONZALEZ-LLANA Arturo - VAN OOSTRUM Alexander - PEMAN Alberto - ATG Engineering BV - NL DE CILLIA Mathieu - THALES ALENIA SPACE - FR - RAPP Stephan - MESCHENMOSER Matthias - OHB system AG - DE - MARESCHI Vincenzo - DE PALO Savino - PERACHINO Luca - THALES ALENIA SPACE - IT - APPEL Simon - ESA - NL	095 I NUMERICAL SIMULATION OF THE GENERATION AND PROPAGATION OF PYROTECHNIC SHOCKS FOR SHOCK TEST PREDICTION LEMAY Simon - DOULSIER Geoffrey - RAYNAL Estelle - GALLET Rémy - CNES - FR LEGAUD Tess - VAN DORSSELAER Nicolas - DynaS+ - FR
15h30	214 I FATIGUE AND SURFACE TEXTURE OF POST-PROCESSED METAL ADDITIVE TI-6AL-4V BUCHENAU Theresa - Fraunhofer IFAM - DE CERSULLO Nicola - AIRBUS OPERATIONS GmbH - DE MARDARAS Jon - EMILE Philippe - LAFUE Victor - AIRBUS OPERATIONS SAS - FR BRÜNING Hauke - AMKREUTZ Marc - Fraunhofer IFAM - DE HÜHNE Christian - DLR - DE	116 I ASSESSMENT OF A NUMERICAL SEA FRAMEWORK FOR ADVANCED AEROSPACE STRUCTURES ALIMONTI Luca - ESI Group - US PARRINELLO Andrea - ESI Group - IT MEJDI Abderrazak - GARDNER Bryce - ESI Group - US	225 I TED PERFORMANCE OF AN ALUMINUM SATELLITE STRUCTURE: TEST AND CORRELATION ASMOLOVSKIY Nikolay - Space Structures - DE CORRADINO Ivan - TORRESANI Irma - GIACOMAZZO Matteo - VETTORE Christian - OHB Italia - IT KIGHTLEY Glenn - TOMKINS Kevin - VALLE Mario - AIRBUS UK - GB KIRYENKO Stefan - RITTER Heiko - ESA - NL	155 I FAIRING SEPARATION SHOCK SOURCE EVALUATION AND PROPAGATION CASTEL Alexis - ESI Group - US TRAMECON Alain - HUET LANDRY - ESI Group - FR
15h55	004 I MECHANICAL MATERIAL PROPERTIES OF COATINGS AND ADDITIVELY MANUFACTURED PARTS WHILE USING COLD SPRAY TECHNOLOGY BROTSACK Markus - Impact Innovations - DE		222 I SYSTEMATIC THERMO-ELASTIC ANALYSIS FOR ANTENNA POINTING AND SIZING FABRIES Christophe - RASPIILLER Thibault - LABOUILLE Stéphane - LECLERC Céline - BESANCON Richard - MONTEILLET Benjamin - THALES ALENIA SPACE - FR	252 I HOW TO PREVENT FLIGHT HARDWARE FAILURES DURING SHOCK QUALIFICATIONS TEST? KOLAINI Ali - PHAM Sean - JPL/ CalTech - US
16h20	Coffee break / Poster session / Exhibition			
Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
	ALM - Qualification	Composites - Failure analysis & Numerical methods - 2/2	Thermo-Elastics - 2/2 Lattice structures - 3/3	Shock - 2/2
	CHAIRS: LEBRUN Florent - Thales Alenia Space - FR SINNEMA Gerben - ESA-ESTEC -NL	CHAIRS: DI CARLO Antonio - BEYOND GRAVITY - CH OBST Andreas - ESA/ESTEC - NL	CHAIRS: HOLZ Matthias - AIRBUS D&S - DE VANDEVELDE Simon - CNES - FR	CHAIRS: LEMAY Simon - CNES - FR HOFMANN Martin - AIRBUS D&S Toulouse - FR
16h45	174 I SPACE QUALIFICATION AND PERFORMANCE VERIFICATION OF A GPS PATCH ANTENNA FABRICATED THROUGH HYBRID MANUFACTURING DEL ROSARIO Manuel Jr. - RODRIGUEZ Joash - MABINI Gabriel Kevin - LABRADOR John Leur - CARRIDO Jozal - TALAMPAS Marc Caesar - PhilSA - PH BALLESTEROS Laureen Ida - BUISON Alvin - CHAN Ramcis Allen - YU Marc Adrian - DOST MIRDC - PH	042 I DESIGN, MANUFACTURING, AND TESTING OF A COMPOSITE SELF-DEPLOYABLE ELASTIC-HINGE BOOM FERNANDES Pedro Nuno - MOUTINHO Mário - INEGI - PT	034 I ROSE-L TED SAMPLE TEST AND MODEL CORRELATION OLYMPIO Raymond - AIRBUS D&S GmbH - DE	083 I VERIFICATION OF DIGITAL IMAGE CORRELATION FOR PYROSHOCK TESTING OXBORROW Matthew - BILBY Hannah - FIELDING Thomas - HORSFALL Ian - RAL Space - GB

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
17h10	023 NASA'S CERTIFICATION AND QUALIFICATION CHALLENGES FOR ADDITIVELY MANUFACTURED HARDWARE – WHAT IS NEXT? SINNEMA Gerben - WELLS Douglas - PARK Alison - RUSSELL Richard - WEST Brian - NASA - US MCENERNEY Bryan - Jet Propulsion Laboratory - US GLENDENING Andrew - LANIGAN Erin - TILSON William - NASA - US	251 COMPOSITE STRENGTH ANALYSES UNDER RANDOM LOADING THELEMANN Sebastian - JENTSCH Michael - AIRBUS D&S - DE SCHATZ Markus - DHBW Ravensburg - DE KOMMER Andreas - AIRBUS D&S - DE DUDDECK Fabian - TU Munich - DE	193 UNCERTAINTY BASED METHOD FOR ASSESSING CRITICAL THERMO-ELASTIC PARAMETERS FOR SPACE TELESCOPES PERFORMANCE GARCIA-LUIS Uxia - GOMEZ-SAN-JUAN Alejandro - NAVARRO-MEDINA Fermin - AGUADO-AGELET Fernando - ULLOA-SANDE Carlos - REY-GONZALEZ Guillermo - ORGEIRA-CRESPO Pedro - CAMANZO-MARIÑO Alejandro - DRAGOS-DARAU Vlad - Univ. of Vigo - ES PELAEZ-SANTOS Alba Eva - GONZALEZ-DE-CHAVES-FERNANDEZ Pablo - YNIGO-RIVERA Alfonso - Instituto de Astrofísica de Canarias - ES	163 PYROVALVE SHOCK ATTENUATION IN SATELLITE STRUCTURE FROM MTG TEST SANZ CASADO Alvaro - RIVA Nicola - OHB System AG - DE
17h35		006 DEVELOPMENT AND IMPLEMENTATION OF A PARAMETER ESTIMATION AND POST-PROCESSING TOOL FOR THE FAILURE ANALYSIS OF COMPOSITE MATERIALS FINDEISEN Claudio - SCHOBER Michael - Fraunhofer IWM - DE APPEL Simon - European Space Agency ESA/ESTEC - NL WEISS Klaus-Peter - Karlsruhe Institute of Technology - DE HOHE Jörg - Fraunhofer IWM - DE	085 VALIDATION OF DIFFERENT MODELLING APPROACHES OF LATTICE STRUCTURES WITHIN ADDITIVE MANUFACTURED PARTS SCHREZENMEIER Johannes - WILD Dominik - CZUPALLA Markus - FH Aachen - DE ROCKSTEIN Steve - DLR Institut für Optische Sensorsysteme - DE	139 OPTIMAL DESIGN AND EXPERIMENTAL VALIDATION OF A 3D-PRINTED CRASH ABSORBER BARRIERE Ludovic - KERVELLA Theo - AUBRY Julien - JAULENT Aude - IRT Saint Exupéry - FR NAVARRO Pablo - MARGUET Steven - Institut Clément Ader - FR
18h00	227 ENABLING ONLINE QUALITY CONTROL OF POWDER DEPOSITION FOR 3D PRINTING IN MICROGRAVITY KOLSCH Nico - MEYER Lena - ZOCCA Andrea - WILBIG Janka - GÜNSTER Jens - Bundesanstalt für Materialforschung und -prüfung - DE		195 TESTING INTERFACES OF LATTICE SPACECRAFT STRUCTURES MURRAY Brendan - MATTHEWS Kelly - TELFORD Robert - ATG Innovation - IE	
Room	CASSIOPEE			
18h30	Closing Ceremony			

FRIDAY 31 MARCH

Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
08h30	Mini-workshop Thermoelastics		Mini-workshop Non linear dynamics of jointed structures	
	CHAIRS: LAINE Benoit - ESA - NL COE Graham - ESA - NL APPEL Simon - ATG on behalf of ESA - NL		CHAIRS: DI MAIO Dario - Univ. of Twente - NL ELLENBROEK Marcel - AIRBUS D&S - NL DE BEKKER Sjoerd - ADSN - NL VAN TIGGELEN Jip - Univ. of Twente - NL	
10h30	Coffee break			
Room	CASSIOPEE	SPOT	GUILLAUMET 1	GUILLAUMET 2
11h00	Extension possible if needed		Extension possible if needed	Mini-workshop Metrology
				CHAIRS: ROOSE Stéphane - CSL - BL CASAROSA Gianluca - ESA - NL

POSTER SESSION

008 | A NEW 7M THERMAL VACUUM TEST CHAMBER IN THE UK

OMUR Cem - [GAVUZ Emre](#) - RAL Space - GB

009 | TENSILE SPECIMEN FOR TRUSS-BASED LATTICE STRUCTURES: MANUFACTURING AND EXPERIMENTAL VALIDATION

[MEYER Guillaume](#) - PFEFFER Robin - ECKERT Zoé - KLuB - MITTELSTEDT Christian - KLuB - TU Darmstadt - DE

016 | SIMULATION OF FORCED VIBRATIONS IN ASSEMBLED SYSTEMS FOR QUALIFICATION TESTS: ARE WE THERE YET?

[VAN TIGGELEN Jip](#) - Univ. of Twente - NL

021 | SPATIAL STRUCTURE DESIGN BY SIMULATION

[LEQUOY Marie](#) - MARCHESINI Jacques - INTES FR - FR
HELFRICH Reinhard - INTES GmbH - DE

057 | SIMPLIFIED CRITERION TO ASSESS THE OVERSTRESS RISK OF A QUALIFIED EQUIPMENT UNDER RANDOM VIBRATIONS

[FICHANT Alexandre](#) - SAFRAN - FR

060 | EARLY STAGE CHARACTERISATION AND VALIDATION OF A NEW BACKPLANE CONCEPT FOR ELECTRONIC MODULAR EQUIPMENTS

[GARNIER Jérôme](#) - VANDEPLASSCHE Philippe - DE METS François - THALES ALENIA SPACE - BE

066 | EXPLORATION, DESIGN AND MANUFACTURE OF POLYMER BASED TMD FOR ENERGY ABSORPTION

BHAT Krishnaraj Vilasraj - GARCIA-MARTINEZ Juan - [MARTINEZ TERES Ignacio](#)
BALADO MARGELI Ana Belen - CANCHAL MORENO M. Rosario - COLOMBO BUENO Maria - GORDILLO PINTOR Cecilia - RODRIGUEZ PRIETO Jose Antonio - SAN MILLAN FIEL Francisco Javier - SANTAMARIA BAEZA M. Pilar - SANTIAGO PE Amaia - INTA - ES

072 | ADEO – COMPLETE AUTONOMOUS AND RELIABLE DEORBITING DRAGSAIL MODULE

STELZL Daniel - [KILLIAN Matthias](#) - HOFMANN LEONARD - PUTTICH Germar - LOPEZ-CORRALEZ Xenia - GARCIA MORA Carlos - PIMPI Jannik - SCHUHBAUR Manuel - STOLZ Olaf - LINDENMAIER Peter - HPS GmbH - DE
SEEFELDT Patric - SPROEWITZ Tom - DLR - DE
CARDONE Tiziana - ESA - European Space Agency - NL
PFEIFFER Ernst K. - HPS GmbH - DE

109 | 3D FDM PRINTING AND ELECTRIC POLING FOR A SMART ANISOTROPIC PIEZOELECTRIC PVDF

[PONS Nelly](#) - INAL Karim - LAIRINANDRASANA Lucien - Mines Paris PSL - FR
BOYER Séverine A.E. - CNRS - FR
BURR Alain - CNRS - FR
OVALLE Cristian - Mines Paris PSL - FR

112 | LONG TERM STORAGE: SURFACE ALTERATION OF CFRP/EPOXY STRUCTURES DUE TO CLEANROOM LIGHTS

[HENRY Théo](#) - BUTENKO Yuriy - LAFONT Ugo - MARTINS Ricardo - RODRIGUEZ CASTILLO Sarah - SCHMEITZKY Olivier - ESA - NL
PIGLIARU Lucia - ESA - ITALY
HOLYNSKA Malgorzata - ESA - NL

123 | THE COMPLEX IRRADIATION FACILITY (CIF) AT DLR BREMEN

RENGER Thomas - SZNAJDER Maciej - SPIETZ Peter - [SEEFELDT Patric](#) - KLEIN Erik M. - WITZKE Andreas - DLR - DE

124 | POLYURETHANE STRUCTURAL CRYOGENIC INSULATION FOR SPACE LAUNCHERS PRODUCED WITH THE NEXT GENERATION SUSTAINABLE BLOWING AGENTS

[CABULIS Ugis](#) - YAKUSHIN Vladimir - RUNDANS Maris - LSIWC - LV
HOLYNSKA Malgorzata - ESA/ESTEC - NL

131 | VIBES: MANAGING MICROVIBRATION FOR THE FUTURE OF SPACEFLIGHT

[GARCIA MARIN Antonio](#) - BASATA Enes - GERSTING Tim - GUST Tim - DEKA Michal - THIELE Sven - SALAH Mohammad - IAT Bremen - DE
BESTARD KOERNER Matias - DLR Bremen - DE
GONZALEZ FELICIO Miguel - RUNTE Torben - OHB System AG - DE

137 | SIMULATION-BASED CERTIFICATION OF AEROSPACE STRUCTURES: CURRENT CHALLENGES AND INVESTIGATIONS

[BARRIERE Ludovic](#) - MIOT Stephanie - IRT Saint Exupery - FR
SWIERGIEL Nicolas - BALLERE Ludovic - ARIANE GROUP - FR

156 | INVESTIGATION ON TESTING OF POTTING PHASE EFFECT ON INSERT STRENGTH AND DEVELOPMENT OF REPAIR PROCESS

[ABAY Muhammet Mustafa](#) - AKÇE Hasan - ÇEKİÇ Abdulkadir - TURAN Seda - Turkish Aerospace - TR

158 | FINALIZING THE IMPLEMENTATION OF IABG'S COMPETENCE CENTER OPTICS - STATUS OF THE OPTICAL GROUND SUPPORT EQUIPMENT

[FRIEMEL Matthias](#) - STANGNER Tim - BRACHMANN Johannes - IABG mbH - DE

162 | IMPROVING THE THERMAL BALANCE PERFORMANCE OF THE ESA ESTEC LARGE SPACE SIMULATOR

[MOEYS Remko](#) - APPOLLONI Matteo - ETCHHELLS James - ESA - NL

165 | HERA CENTRAL TUBE STATIC TEST CAMPAIGN

[GROSJEAN Valentin](#) - GURY Lionel - URBINATI Fabrizio - Beyond Gravity - CH
EROGLU Baris - SEGELKE Harald - OHB - DE
ROHEL Daniel - OHB Czechspace - CZ

166 | MECHANICAL PERFORMANCES AND CORRESPONDING MICROSTRUCTURE OF 316L STAINLESS STEEL SPECIMENS PREPARED BY WIRE ARC ADDITIVE MANUFACTURING

[QUENARD Olivier](#) - GUY Philippe - ICAM - FR

ABAD ROLDAN Manuel - IQS - ES

DOMERGUE Anais - MICHAUD Pierre - ESTIA - FR

178 | ASSESSMENT OF LASER POWDER BED FUSION AND A GENETIC ALGORITHM FOR STRUCTURAL SATELLITE ATTITUDE WHEEL DESIGN

[GOOSSENS Nils](#) - MOUSTAFA Heisam A. - Univ. Bremen - DE

182 | MAKING SATELLITE COMPONENTS MORE SUSTAINABLE

[GOOSSENS Nils](#) - IMHÜLSE Thomas - PESTOTNIK Svenja - REUTER Nicole -

RÖDDER Annika - ZARM Technik AG - DE

203 | LONG FIBER THERMOPLASTIC USE FOR SMALL SIZED SATELLITE REFLECTORS

ARNAUD Eric - CALAS Daniel - [FABRIES Christophe](#) - THALES ALENIA SPACE - FR

224 | DFAN TESTING FOR ANTENNA PRODUCTION LINE

[FABRIES Christophe](#) - PECHEVIS Mathieu - FERRIE Luc -

ARNAUD Eric - THALES ALENIA SPACE - FR

229 | ON THE DESIGN OF THE SUPPORTING STRUCTURE OF THE PARTICLE PHYSICS SILICON CHARGE DETECTOR

[MANCINI Edoardo](#) - MUSSOLIN Lorenzo - MORETTINI Giulia - AMBROSI Giovanni - INFN section of Perugia - IT

CIANETTI Filippo - Univ. of Perugia - Department of Engineering - IT

SCOLIERI Gianluca - IONICA Maria - INFN section of Perugia - IT



AUTHOR INSTRUCTIONS

ORAL SESSION

The duration of the communication is 20min + 5min for questions/answers from the floor.
For the good organization of the session, no overtime will be accepted.
Please check in advance that your presentation does not exceed the time limit.

PowerPoint slides should be prepared in landscape 16/9 format.

PREVIEW

Speakers have to go to the Preview room level 1 to test and upload their PowerPoint or PDF files via USB stick at least half a day before their presentation.

Please note that it will not be possible to display the presentation directly from your own laptop in the meeting rooms. Nor will it be possible for you to connect your own USB stick to the PC in the meeting rooms. This is for efficiency and security reasons, thank you for your understanding.
Every author is ultimately responsible to check that his/her presentation works onsite at the conference, with the available technician.

You must arrive 15 minutes before your session to « check-in » with the chairman of the session.
Please provide before your presentation a brief text (2 or 3 lines) for the chair to introduce you to the audience.

POSTER SESSION

You are in charge of printing your poster in A0 portrait format (0.84m × 1.19m).

You must display your poster as soon as you arrive. You will find your reserved place by referring to the number on your paper.

The boards are made of PVC, and we recommend using blu tack or easily removable double-sided tape, available on site.

Make sure your documents are not too heavy and avoid laminated plastic or cardboard-backed sheets.
You will not be able to use pins or drawing pins.

The title of your poster must appear at the top, in 25mm-high capital letters. Make sure that the authors and their corresponding organisations are clearly visible.



SOCIAL EVENTS



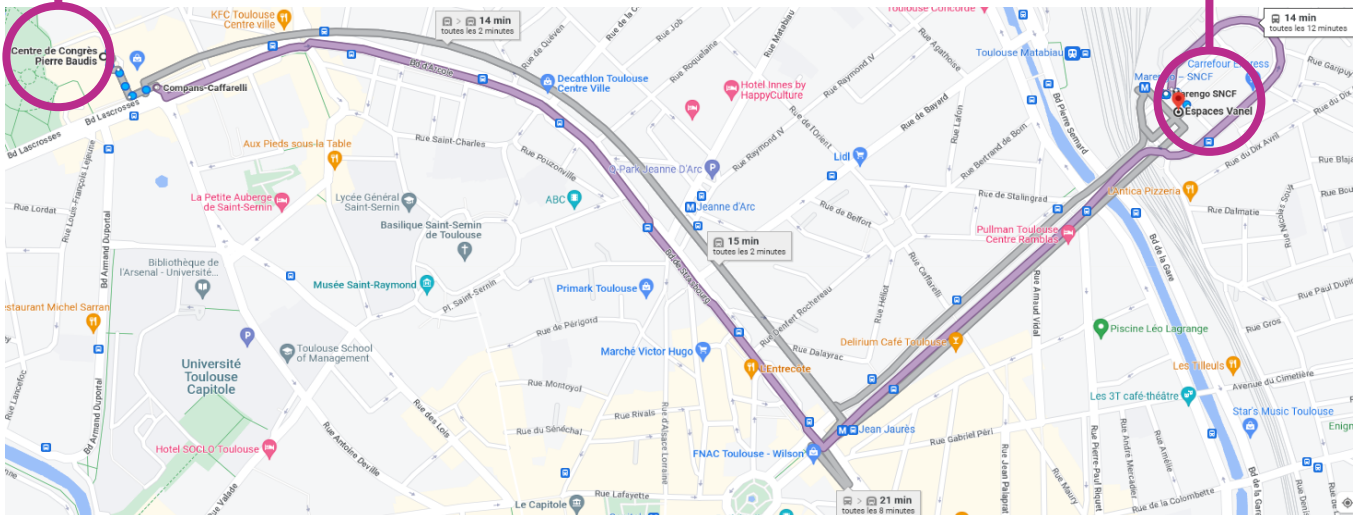
WELCOME COCKTAIL

Tuesday 28 March 2023, 18:45
Pierre Baudis Congress Centre
11 Esplanade Compans Cafarelli | Toulouse
Foyer Ariane, in the exhibition area - 2th floor



GALA DINNER

Wednesday 29 March 2023, 19:30
Espaces Vanel, Arche Marengo
1 All. Jacques Chaban-Delmas | Toulouse
6th floor



For more information click [HERE](#)



VENUE

PIERRE BAUDIS CONGRESS CENTRE

11 Esplanade Compans Caffarelli | Toulouse

The Conference will take place in Toulouse at the Pierre Baudis Congress Centre located in the city center on the edge of the Compans-Caffarelli park.

Situated at 15mn from the airport and 10mn by walk from the Capitole square.

Can be easily reached by car or on foot with public transport.

BY PLANE

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[Link to Toulouse-Blagnac airport](#)

BY TRAIN

Toulouse-Matabiau train station

[Link to Toulouse-Matabiau train station](#)

BY CAR

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43°35'12" degrees North-

1°29'38" degrees East latitude

BY METRO

Metro: Line B

Compans Caffarelli Stop

[Link to TISSEO](#)

BY BUS

Lines: 31, 45, 63, L1

and Airport Shuttles

Stop close to the Congress Centre

[Link to TISSEO](#)

CAR PARK

Underground parking

Compans Caffarelli

Near the Palais des Congrès

1000 spaces



PRACTICAL INFORMATION

WELCOME DESK

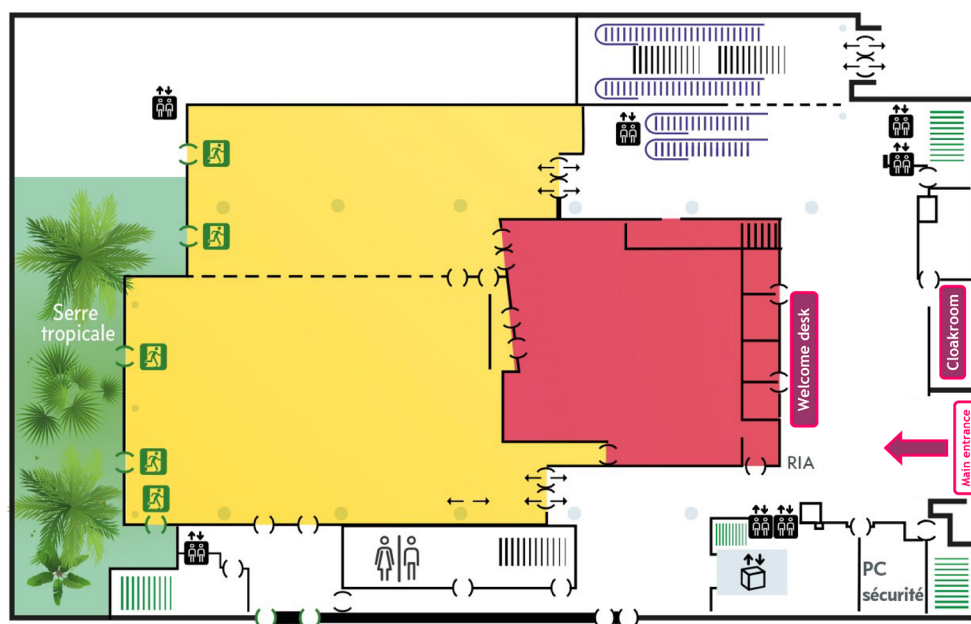
OPENING HOURS:

- Tuesday 28 March: 08h00 > 19h00
- Wednesday 29 March: 08h00 > 18h30
- Thursday 30 March: 08h00 > 18h30
- Friday 31 March: 08h00 > 13h00

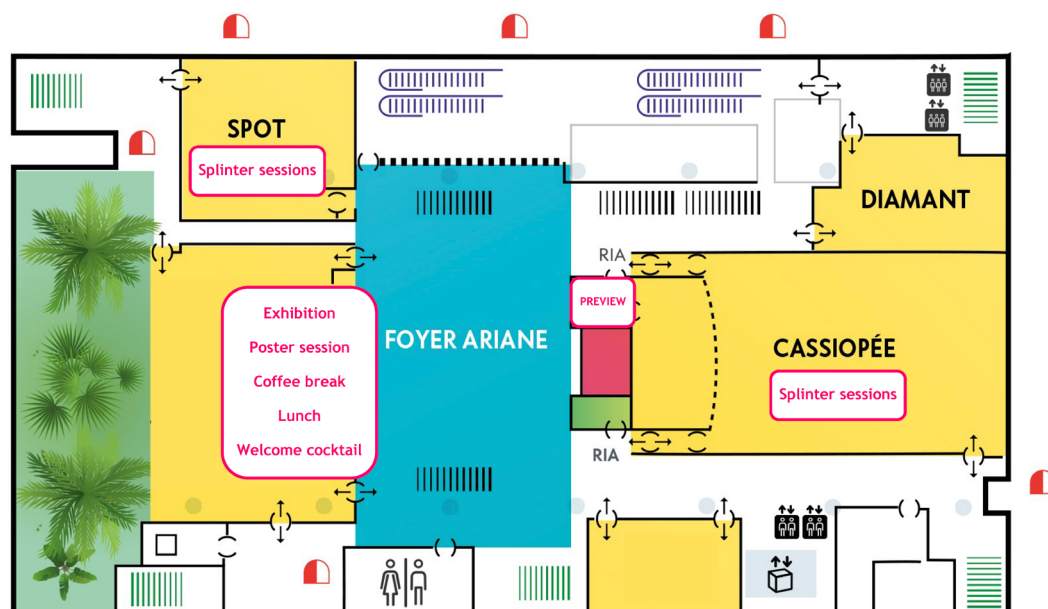
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- Network: ECSSMET2023
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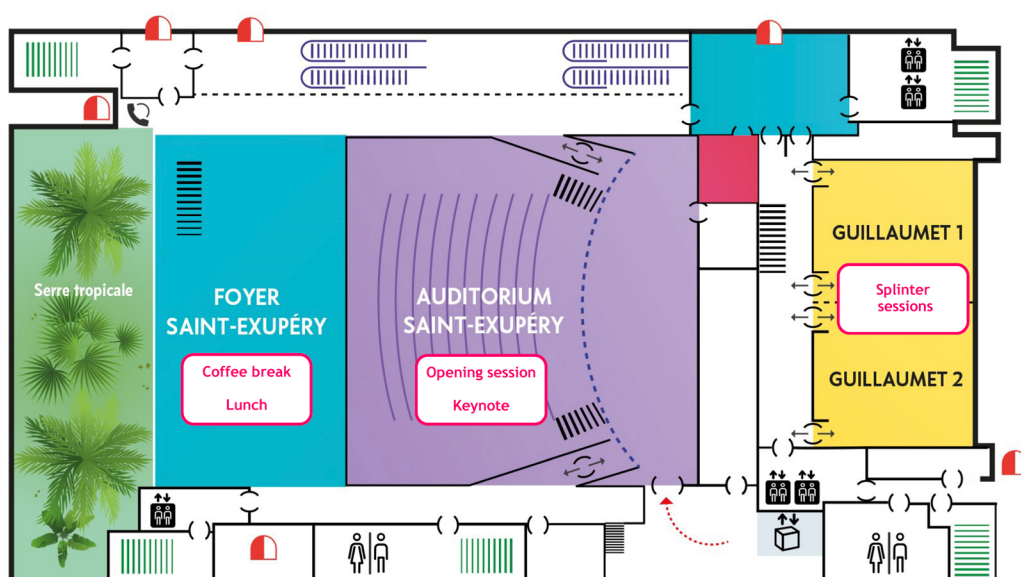
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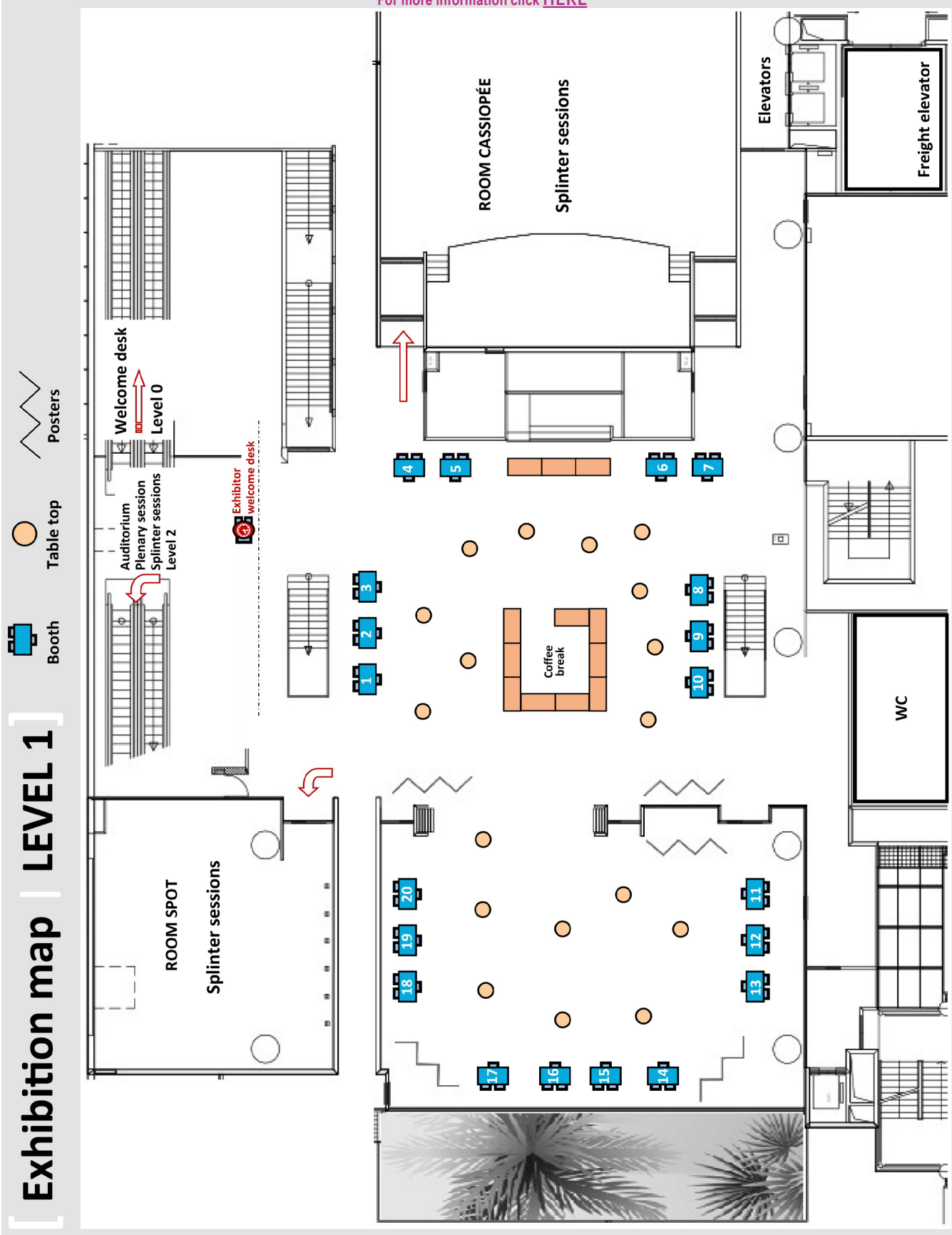


LEVEL 2



EXHIBITION

For more information click [HERE](#)

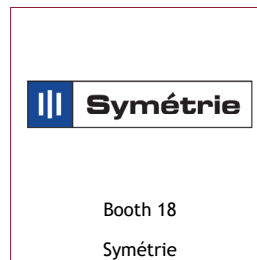
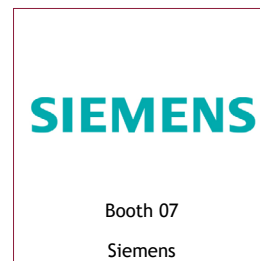
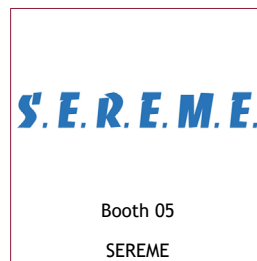
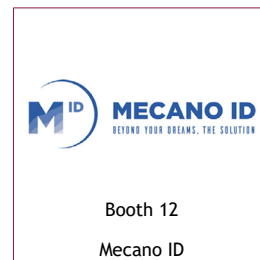
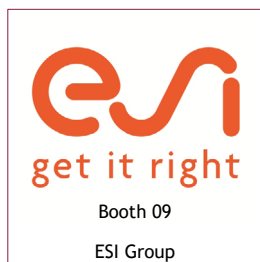
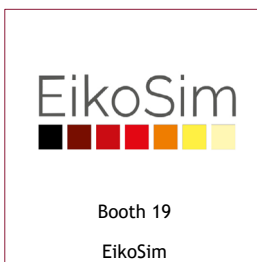


EXHIBITORS

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 Booth 02 | Acoustic Research Systems
 Booth 03 | Dassault Systèmes
 Booth 04 | DEWESoft France
 Booth 05 | SEREME
 Booth 06 | Plug In
 Booth 07 | Siemens
 Booth 08 | SMAC
 Booth 09 | ESI Group
 Booth 10 | RHP Technology

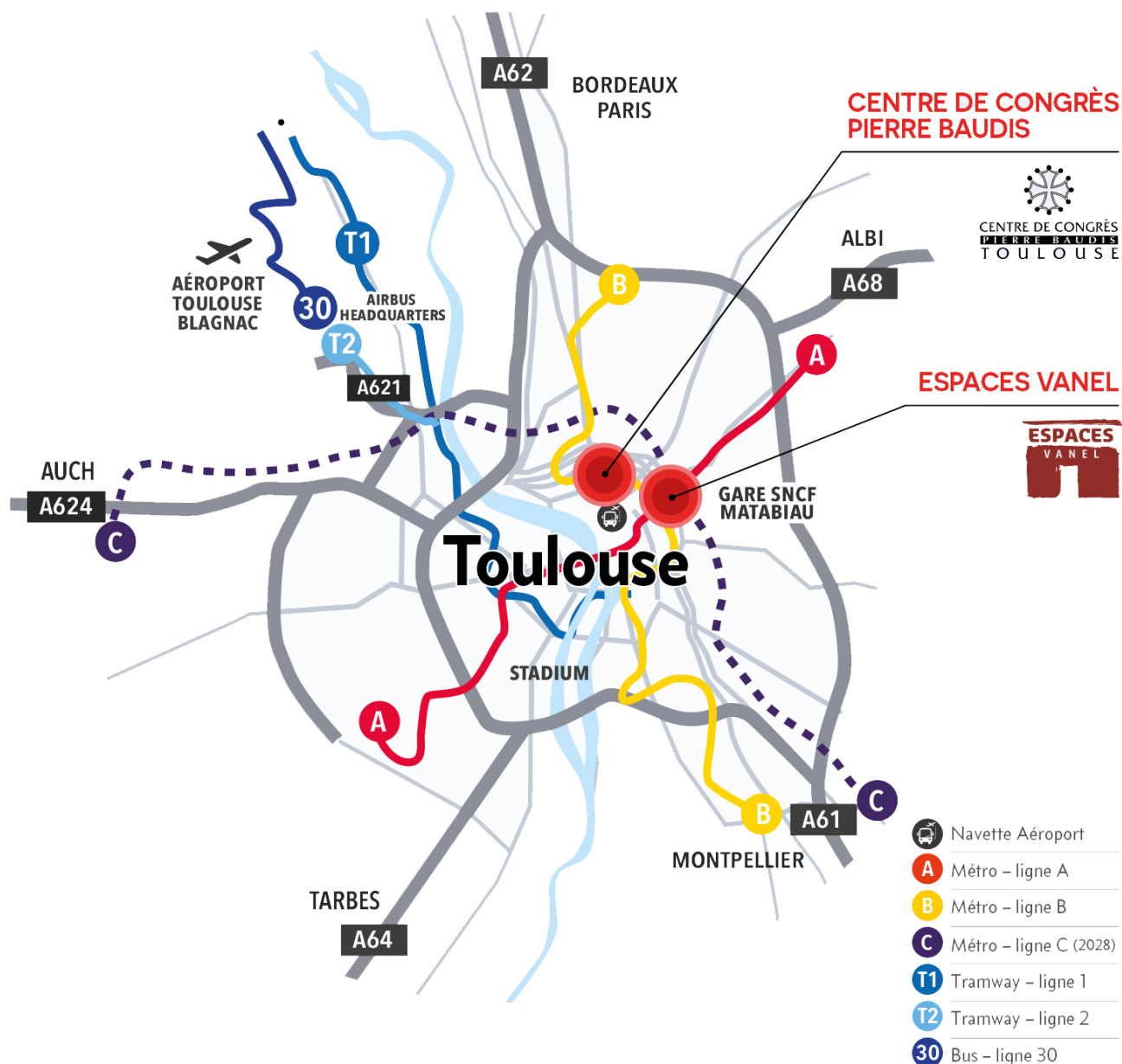
Booth 11 | European Test Services
 Booth 12 | Mecano ID
 Booth 13 | INTES France
 Booth 14 | LISI AEROSPACE Additive Manufacturing
 Booth 15 | Space Structures
 Booth 16 | CSEM
 Booth 17 | Weiss Technik
 Booth 18 | Symétrie
 Booth 19 | EikoSim
 Booth 20 | Kistler

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17th ECSSMET | 28 > 30 March 2023 | Toulouse

TUESDAY 28 MARCH				WEDNESDAY 29 MARCH				THURSDAY 30 MARCH				FRIDAY 31 MARCH						
08:00	Registration			08:00	Cassiope	Spot	Guillaumet 1	Guillaumet 2	08:00	Cassiope	Spot	Guillaumet 1	Guillaumet 2	08:00	Cassiope	Spot	Guillaumet 1	Guillaumet 2
Room	Auditorium St-Exupéry			Room	ALM - Products & Applications - 1/2			Analysis & Design - Architecture & Product development	Room	Analysis & Design - Structural Analysis & Design			Joints & Inserts (including ALM)	Lattice structures - 2/3	Space Sustainability	Room	Mini-Workshop Non linear dynamics of jointed structures	
09:30	Opening session			08:30	Composites - Innovative matrices			Acoustics / Environmental testing - Launchers	08:30	Composites - Failure analysis & Numerical methods - 1/2			Thermo-Elastics - 2/2	Shock - 2/2	Mini-Workshop Thermoelastics			
10:30	Coffee break / Posters session / Exhibition			10:30	Coffee break / Posters session / Exhibition			Analysis & Design - Payload design, development & verification	10:35	Coffee break / Posters session / Exhibition			Dynamics analyses - 1/2	Isolation & Damping	Microvibrations	Coffee break		
11:00	Keynote 1: The wave of micro/mini launchers in Europe - Vila Jérôme - MAIASPACE			11:00	ALM - Products & Applications - 2/2			Environmental testing - Mechanical tests campaign	11:00	Environmental testing - New approaches			Dynamics analyses - 1/2	Isolation & Damping	Microvibrations	Extension possible if needed		
	Keynote 2: The Artemis program - Berthe Philippe - ESA				Composites - Launchers			Environmental testing - Mechanical tests campaign		Environmental testing - New approaches			Dynamics analyses - 1/2	Isolation & Damping	Microvibrations	Extension possible if needed		
	Keynote 3: The Mars program and the Search for traces of life - Maurice Sylvestre - IRAP				ALM - Products & Applications - 2/2			Environmental testing - Mechanical tests campaign		Environmental testing - New approaches			Dynamics analyses - 1/2	Isolation & Damping	Microvibrations	Extension possible if needed		
12:30	Lunch / Posters session / Exhibition			13:05	Lunch / Posters session / Exhibition			Analysis & Design - Payload design, development & verification	13:05	Lunch / Posters session / Exhibition			Dynamics analyses - 1/2	Isolation & Damping	Microvibrations	Extension possible if needed		
Room	Cassiope	Spot	Guillaumet 1	Room	Cassiope	Spot	Guillaumet 1	Guillaumet 2	Room	Cassiope	Spot	Guillaumet 1	Guillaumet 2	Room	Cassiope	Spot	Guillaumet 1	Guillaumet 2
14:00	ALM - Process - 1/2	Composites - Design, Manufacturing & Testing - 1/2	Environmental testing - Acoustics & DFAT	Deployable Structures - Antenna	ALM - Non metallic - 1/2	Composites - Tanks	Environmental testing - Thermal test Means	Deployable Structures - Solar Array	14:15	ALM - Material properties	Dynamics analyses - 2/2	Thermo-Elastics - 1/2	Shock - 1/2	Room	ALM - Material properties	Dynamics analyses - 2/2	Thermo-Elastics - 1/2	Shock - 1/2
16:05	Coffee break / Posters session / Exhibition			16:20	Coffee break / Posters session / Exhibition			Analysis & Design - Payload design, development & verification	16:20	Coffee break / Posters session / Exhibition			Dynamics analyses - 2/2	Isolation & Damping	Microvibrations	Coffee break		
16:30	ALM - Process - 2/2	Composites - Design, Manufacturing & Testing - 2/2	Acoustics / Environmental testing / Thermal	Deployable Structures - Booms & Mechanisms	ALM - Non metallic - 2/2	Composites - Failure analysis & Numerical methods - 1/2	Lattice structures - 1/3	Deployable Structures - Solar Array & Other deployable sub-systems	16:45	ALM - Qualification	Composites - Failure analysis & Numerical methods - 2/2	Thermo-Elastics - 2/2	Shock - 2/2	Room	ALM - Qualification	Composites - Failure analysis & Numerical methods - 2/2	Thermo-Elastics - 2/2	Shock - 2/2
18:35	Welcome cocktail			18:25	Coffee break / Posters session / Exhibition			Analysis & Design - Payload design, development & verification	18:25	Coffee break / Posters session / Exhibition			Dynamics analyses - 2/2	Isolation & Damping	Microvibrations	Coffee break		
19:00	Welcome cocktail			19:30	Conference Gala dinner			Analysis & Design - Payload design, development & verification	19:30	Conference Gala dinner			Dynamics analyses - 2/2	Isolation & Damping	Microvibrations	Coffee break		



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