PRELIMINARY PROGRAMME

HiSST 2025

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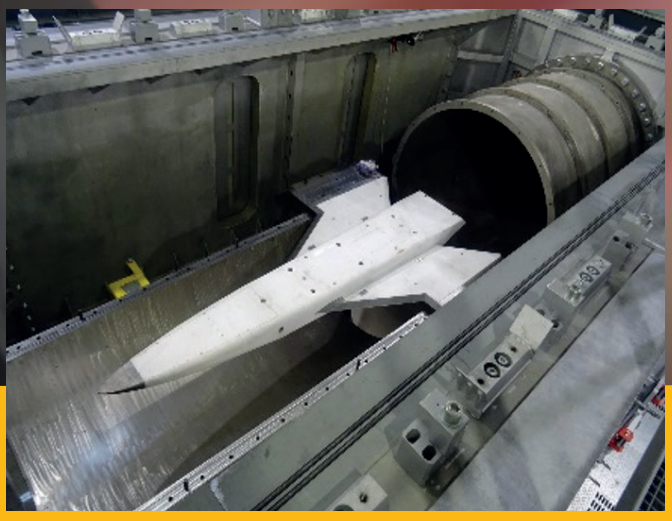
THE 4TH INTERNATIONAL CONFERENCE ON HIGH-SPEED VEHICLE SCIENCE & TECHNOLOGY

SEPTEMBER 22ND – 26TH 2025, TOURS - FRANCE



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Monday, September 22nd, 2025 - Afternoon

13:00	**registration & welcome coffee**	**Exhibition & Posters**
	Plenary room	
14:30	**Opening** **Welcome Address** Dr Adam Siebenharr, Chairman HiSST International Technical Committee, USA **Host Speech** Francois Falempin, Host of HiSST 2025, France **Congratulatory Remarks** Bruno Berthet, 3AF Chairman and CEAS representative **DOI and CEAS Special Issue** Prof. Johan Steelant, ESA, The Netherlands	
15:30	**Global Review** Chair: Dr. Adam Siebenharr, Chairman HiSST International Technical Committee France, Australia, Brazil, China, ESA, Germany	
16:30	**Coffee Break**	
17:00	**Global Review** Chair: Dr. Adam Siebenharr, Chairman HiSST International Technical Committee Italy, India, Japan, Korea, United Kingdom, USA	
18:00	**Keynote Speech 1** Chair: Prof. J. Steelant - ESA, the Netherlands Recent progress in plasma-based control of duct-driven flow and combustion relevant to hypersonic systems Prof. Sergey Leonov - University of Notre Dame, IN, USA	
19:00	**Welcome Reception at Conference center** **Posters and Exhibition Opening**	

Tuesday, September 23rd, 2025 - morning

Plenary room

08:30

Keynote Speech 2
Chair: Prof. X. Luo - Institute of Mechanics, Chinese Academy of Sciences

Physics-Informed AI for Next-Generation Hypersonic Aerodynamic Design
Dr Chen-An Zhang - Institute of Mechanics, Chinese Academy of Science

09:20 — intersession

	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
	session 11	session 12	session 13	session 14	session 15	session 16	session 17	session 18
	HSA1	HSA2	HSA3	HSM1	PSC1	PSC2	M&S1	T&E1
	Chairs: Marco Marini - CIRA, Italy Su-Wan Choi - Pusan National University, South Korea	Chairs: Luke Doherty - Oxford University, United Kingdom Marius Franze - DLR, Germany	Chairs: Viola Wartemann - DLR, Germany Ioannis Nikolos - Technical University of Crete, Greece	Chairs: Gennaro Russo - DAC Distretto Aerospaziale Campania, Italy Cedric Monjaret - ONERA, France	Chairs: Bruno Le Naour - MBDA France Sijia GAO - Xiamen University, China	Chairs: Dominique Scherrer - ONERA, France Zezhong Wang - Institute of Mechanics, Chinese Academy of Sciences	Chairs: Prof. J. Y. Choi - Pusan University, Korea Alexander Wagner - DLR, Germany	Chairs: Jan Martinez-Schramm - DLR, Germany Bruno Van Ootegem - Ariane Group, France
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Exhibition & Posters

Tuesday, September 23rd, 2025 - Afternoon

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17:00	297 DrEAM Science Objectives and Status Post Dragonfly Critical Design Review Aaron BRANDIS(1), Helen HWANG(1), Jose SANTOS(1), Eric STERN(1), Thomas THIELE(2), Chris NAUGHTON(1), Chris JOHNSTON(1), Ruth MILLER(1), Chris KARLGAARD(1), Tomo OISHI(1), Joseph SCHULZ(1), Frank SIEBE(2), Niklas WENDEL(2), Dominic NEEB(2), Pascal ZUR NIEDEN(2), Ali GULHAN(2) (1) NASA Ames, USA (2) DLR, Germany (3) NASA LARC, USA	345 Development of a physics-based radiative model for anisotropic scattering and absorbing medium Savio POOVATHINGAL, Ahmed YASSIN University of Kentucky, USA	253 Structural Analysis and Application of Adaptive Control Laws for Unmanned Spaceplanes You-Jeong LEE, Dain YOON, Chang-Hun LEE Korea Advanced Institute of Science & Technology, Daejeon, South Korea	192 Flight Stability Analysis and Flap Size Optimization along a Trajectory of a Waverider Concept Marius FRANZE, Fynn BARZ DLR, Germany	313 Numerical simulation of the supersonic mixing mechanisms in scramjets Sasi Kiran PALATEERDHAM(1), Han SEOEUM(2), Park YOONSIK(2), Antonella INGENITO(1), Jeung IN SEUCH(2), Lee BOK(2) (1) Sapienza, Italy (2) Seoul National University, South Korea	66 Applying Uncertainty Quantification to Thermal Protection System Design for a Hypersonic Point-to-Point Passenger Vehicle Jascha WILKEN, Aaron D. KOCH DLR, Germany	310 A specific TPS for an innovative actively cooled combustor Thomas LE PICHON(1) Fabien BARRIER(2), Kevin HARAS(2), Guillaume PELLETIER(1), Isabel DA COSTA(1), (1) ONERA, France (2) ArianeGroup, France	320 CFD-Based Design of a Supersonic Blow-Down Wind Tunnel Antonella INGENITO(1), Margani FRANCESCO(2), Riccardo NICOLETTI(1), Lua ARMANI(2), Seoeum HAN(3), (1) Sapienza, Italy (2) GAUSS, Italy (3) Seoul National University, South Korea
17:30	Intersession							
	Plenary room							
17:40	**Keynote Speech 3** Chair: Dr David Glass - NASA, USA - NASA, USA Composite materials for intermediate temperatures (800°-1300°C) Guillaume Fischer - MBDA France							

Exhibition & Posters

Wednesday, September 24th, 2025 - morning

Plenary room

08:30

Keynote Speech 4
Chair: Dr. M. Minucci - Institute for Advanced Studies, Brazil

From ground based Environmental testing to Hypersonic flights – A Challenge for Laboratories
Alice Jacob - MBDA France

09:20 — intersession

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	session 31	session 32	session 33	session 34	session 35	session 36	session 37	session 38
	HSA6	**HSA7**	**HSA8**	**HSM3**	**PSC4**	**PSC5**	**M&S3**	**T&E3**
	Chairs: **Prof. A. Pudsey - RMIT University, Australia** **Leo Basov - DLR, Germany**	**Chairs:** **Moritz Ertl - DLR, Germany** **Zhenwu Yuan - Nanjing University of Science and Technology,China**	**Chairs:** **Prof. X. Luo - Institute of Mechanics, Chinese Academy of Sciences** **Bodo Reimann - DLR, Germany**	**Chairs:** **Sara Di Benedetto - CIRA, Italy** **Dr. Frank Scheuerpflug - DLR, Germany**	**Chairs:** **Dr. J. Van den Eynde - ESA, the Netherlands** **Christer Fureby - Lund University, Sweden**	**Chairs:** **Pierre Vidal - Pprime, CNRS, France** **Prof Xu Jinglei - Nanjing University of Aeronautics and Astronautics, China**	**Chairs:** **Prof. J. Steelant - ESA, the Netherlands** **Antoine Rosso - MBDA France**	**Chairs:** **Luke Doherty - Oxford University, United Kinodom** **Thierry Andre - MBDA France**
09:30	274 Induced Transition to Turbulence in a Hypersonic Flow Over a Two-Dimensional Wedge Vamsi Krishna TALLURI(1), Jacob COHEN(1), Soumya R. NANDA(2) (1) Technion- Israel Institute of Technology, Israel (2) Indian Institute of Technology Kanpur, India	29 Metric-based mesh adaptation for hypersonic flows: capturing wall heat flux with anisotropic triangles and tetrahedrons Guillaume PUIGT(1,2), Valentin GOLLIET(2), Frédéric ALAUZET(1) (1) INRIA, Palaiseau, France (2) ONERA, Toulouse, France	95 Multi-fidelity aerodynamic database construction for atmospheric entry spacecrafts Arda OZUZUN, Michele CAPRIATI, Domenico MASSARI, Pierre SCHROOYEN, Guillaume GROSSIR Von Karman Institute, Belgium	142 Conceptual Configuration Design and Layout Optimization of an Supersonic Civil Aircraft Saeed HOSSEINI, Mohammad Ali VAZIRY-ZNAJANY Amirkabir University of Technology , Iran	334 Ramjet to Scramjet Transition – A Large Eddy Simulation Study Christer FUREBY Lund University,Sweden	252 Numerical Analysis of the Initial Flow-Field Characteristics of a Disk-Shaped RDE Using a Non-Premixed Ethylene/Oxygen Mixture Mohammedniyasdeen NEJAAMTHEEN, Jeong-Yeol CHOI PUSAN NATIONAL UNIVRESITY, South Korea	281 Development of UHTC materials and high temperature characterizations using CO2 laser beam Aurélie JULIAN-JANKOWIAK, Jean-François JUSTIN, Antoine DÉBARRE, Damien BAUTISTA ONERA, France	5 Investigation of Heat flux and Stagnation Pressure Integrated Measurement Probe using Gardon Gauge Jeongwoo KIM(3), Seonghyun SO(3), Kyungsoo PARK(3), Jungmin LEE(3), Jaejeong NA(3), Minwook KIM(2), Dongki HYUN(2), Gisu PARK(4), Christian DUERNHOFER(1), Stefan LOEHLE(1) (1) IRS, Germany (2) Vitzro nextech, South Korea (3) Agency for Defense Development, South Korea (4) KAIST, South Korea
10:00	136 Global Analysis of Transitional Flow Over a Cone-Flare at Mach 14 Stuart LAURENCE(2), Cole SOUSA(2), Guillaume GROSSIR(1), Olivier CHAZOT(1) (1) Von Karman Institute, Belgium (2) University of Maryland, USA	74 Validation of an automated toolset for mesh adapted Navier-Stokes simulation of high speed vehicles using DNS and experiment Mathieu LUGRIN, Bruno MAUGARS, Cedric CONTENT ONERA, France	200 Computational analysis of plasma jet flow over a wedge geometry in the plasmatronX ICP facility Abhyudaya SINGH, Alessandro MUNAFO, Daniel BODONY, Kelly STEPHANY, Marco PANESI University of Illinois, USA	173 MACH 5 BUSINESS JET FOR MULTIPLE MISSIONS Gennaro RUSSO DAC, Campania Aerospace District, Italy	338 Numerical Investigation on the Optimization of a Detonation-Assisted Fuel Injection System for Scramjet Engines under Mach 8 Flight Conditions Moeno MIYASHITA(1), Akiko MATSUO(1), Eiji SHIMA(1), Noboru ITOUYAMA(2), Akira KAWASAKI(3), Ken MATSUOKA(2), Jiro KASAHARA(2) (1) Keio University,Japan (2) Nagoya University, Japan (3) Shizuoka University, Japan	352 Numerical Simulations of a Continuous Detonation Ramjet Fueled by Ethylene Li RUI, Xu JINGLEI, Zhang KUNYUAN Nanjing University of Aeronautics and Astronautics, China	326 Ultra-high temperature ceramic coatings – manufacturing and testing at temperatures higher than 2000 K Aurélie QUET(1), Arthur CHARRUE(1), Marianne BALAT-PICHELIN(2), Charlotte GREGIS(3), Vincent GÉNISSEL(1) (1) CEA, France (2) PROMES-CNRS, France (3) ArianeGroup, France	25 Development of In-House Coaxial Thermocouples and Their Calibration Daniel Gabor KOVACS, Guillaume GROSSIR Von Karman Institute, Belgium
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12:00	31 EDF SILENT project: towards a European hypersonic quiet tunnel Mathieu LUGRIN(5), Jose CARDESA(5), Guillaume GROSSIR(2), Pierre SCHROOYEN(2), Alexander THEISS(1), Lorenzo TARCHI(6), Julien LEFIEUX(3), Lauren DELAGE(4) (1) DLR, Göttingen, Germany (2) von Karman Institute, Belgium (3) MBDA France (4) ABGI France (5) ONERA, France (6) ERGON research SARL, Italy	289 Nonlinear Coupled Constitutive Relations Model for Hypersonic Flows from Continuum Regime to Rarefied Regime Zhenyu YUAN Nanjing University of Science and Technology, China	348 Numerical investigation on prediction of the flow field transition of counterflow jet on hypersonic flow over hemisphere at various flight condition Hee YOON(1), Kojiro SUZUKI(2) (1) TU Braunschweig, Germany (2) University of Tokyo, Japan	341 Detached eddy simulation of Callisto vehicle during subsonic retro-propulsion descent Tobias ECKER DLR, Germany	179 Fundamental research on electric propulsion system in supersonic aircraft Yuteng HU, Takuto ASAI, Kazuki MANABE, Koichi MORI Osaka Metropolitan University, Japan	332 Evolution and control of oblique detonation waves via wedge angle variations in confined space Tai JIN, Xianglong YUAN, , Jianren FAN Zhejiang University, China	307 Investigation of spallation and volumetric ablation products in TPS materials during plasma facility experiments Kate RHOADS(1), Kristen PRICE(1), Stefan LOEHLE(2), Savio POOVATHINGAL(1), Alexandre MARTIN(1) (1) University of Kentucky, USA (2) University of Stuttgart, Germany	314 Impact on the measure of an unsteady pressure sensor mounting in a severe environment for ramjet/scramjet applications Victor VERNOUX, Quentin CHANZY, Thierry ANDRE MBDA, France
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12:30	**Lunch Break**							

Exhibition & Posters

Wednesday, September 24th, 2025 - Afternoon

	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	
14:00	**WS1**	**WS2**	**WS3**						Exhibition & Posters
	Chairs: **Dr. Chen-An Zhang - Institute of Mechanics, Chinese Academy of** **Antoine Rosso - MBDA France** **Impact of AI on high-speed vehicles design**	**Chairs:** **Guillaume Fischer - MBDA France** **Dr. Bryan Kubitschek - NASA, USA** **Composite materials for intermediate temperatures (800°-1300°C)**	**Chairs:** **Dr. Matthew Blenis - Wichita State University, USA** **Dr. Andrew Brune - NASA, USA** **round-robin arc-jet testing campaign**		**Virtual visit CEA et ONERA**				
16:00	**Coffee Break**								
	Plenary room								
16:30	**Keynote Speech 5** **Chair: F. Falempin - 3AF - Host of HiSST2025** **Space Flight Experiments of Detonation Engine System by Using Sounding Rockets S-520-31 and S-520-34 and Detonation Engine Basic Studies** **Prof. Jiro Kasahara - Nagoya University, Japan**								
17:30	**KH Lifetime Achievement Award Lecture** **Chair: Dr. A. Siebenhaar - Chairman HiSST International Technical Committee**								
18:30	transfer								
19:00	**Gala Dinner**								
22:00	transfer								

Thursday, September 25th, 2025 - morning

Plenary room

08:30 — **Keynote Speech 6**

Chair: Prof. V. Wheatley - University of Queensland, Australia

TBD

TBD -

09:20 — intersession

	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
	session 41	session 42	session 43	session 44	session 45	session 46	session 47	session 48
	HSA9	HSA10	HFH1	T&E4	PSC6	PSC7	M&S4	T&E5
	Chairs: **Daniel Banuti - Karlsruhe Institute of Technology, Germany** **Michael Kroells - University of Minnesota, USA**	**Chairs:** **Dr. Desikan. S. L. N - ISRO, India** **Hoste Jimmy-John - Destinus, Germany**	**Chairs:** **Prof. M. Ibrahim - IIT Kanpur, India** **Pierre-Henri Maire - CEA, France**	**Chairs:** **Prof. M. McGilvray - University of Oxford, United Kingdom** **Christopher Grunbok - Texas A&M University, USA**	**Chairs:** **Antonella Ingenito - University of Rome "La Sapienza", Italy** **Nicholas Gibbons - University of Queensland, Australia**	**Chairs:** **Prof Guillermo Paniagua - Purdue University, USA** **Antoine Durant - MBDA France**	**Chairs:** **Dr. A. Siebenhaar - Chairman HiSST International Technical Committee** **Jean-Francois Justin - ONERA, France**	**Chairs:** **Dr. H. Lian - Institute of Mechanics** **Sarah Balland - MBDA France**
09:30	302 Consistent diffusion and chemistry models for DSMC and CFD hypersonic modeling Michael KROELLS,Thomas SCHWARTZENTRUBER University of Minnesota, USA	288 Current Status and Applications of CoNF²aS² - Coupled Numerical Fluid-Flight Mechanics and Structural Simulation Viola WARTEMANN, Marius FRANZE, Sebastian JACK, Fynn BARZ, Bodo REIMANN DLR, Germany	318 Experimental and Numerical Investigations of Magnetohydrodynamic Hypersonic Interactions for High-Altitude Flight Benjamin KHIAR(1), Viviana LAGO(2), Olivier DE BOUËT DU PORTAL(2), Matthieu MAZALLON(1) (1) ONERA, France (2) ICARE/CNRS, France	57 Advancing Nozzle Contour Design: A Numerical-Experimental Comparison and Optimization of Hypersonic Flow Characteristics Daniel MAURAT(1), Gabriel AXTMANN(1), Uwe GAISBAUER(1), Robert HRUSCHKA(2), Friedrich LEOPOLD(2) (1) University of Stuttgart, Germany (2) French-German Research Institute of Saint-Louis, France	335 Experiments on High Speed Air-Breathing Propulsion with Different Fuels for Sustainable Supersonic Flight Friedolin STRAUSS, Luca BAUER, Nico FISCHER, Samuel MICHELFELDER, Christoph KIRCHBERGER DLR, Germany	9 Two-dimensional numerical analysis of the effect of turbo-ramjet nozzle geometry on scramjet thrust performance in a TBCC engine Mika EDAHIRO(1), Akiko MATSUO(1), Tatsushi ISONO(2), Masahiro TAKAHASHI(2), Sadatake TOMIOKA(2) (1) Keio University, Japan (2) JAXA, Japan	6 Impact of the carbon fiber type on the properties and performances of a CMC for hypersonic applications Marina FRADIN(1), Félix BAN(1), Manikanda Priya PRAKASAN(2), Tobias SCHNEIDER(3) (1) MBDA France (2) Institute of Materials Resource Management, Germany (3) ArianeGroup GmbH, Germany	33 Characterization of the plasma jet of Tekna's new PlasmaSonic ICPT15 induction plasma wind tunnel for small scale TPS material testing Jochen ALTENBEREND(2), Eric BOUCHARD(1), Yazid LAKAF(1), Romain VERT(2) (1) Tekna Plasma Systems, Canada (2) Tekna Plasma Europe, France
10:00	294 A dynamic CFD mesh algorithm with joint resolution to compute relative motion and efforts on body parts Margot GUIHO(2), Philippe GRENARD(1) (1) ONERA, France (2) MBDA, France	239 Application of the unified gas-kinetic scheme to ES-BGK models Celine BARANGER(1), Alexis COEPEAU(1-2), Luc MIEUSSENS(2) (1) CEA, France (2) University Bordeaux, France	263 Analytical Solutions for Vibrational and Chemical Nonequilibrium Flows behind Normal Shockwaves Wei FANG, Zhi-Hui WANG University of Chinese Academy of Sciences, China	73 Resolvent and sensitivity analysis for investigating and delaying linear instabilities in quiet hypersonic wind tunnel nozzles Hugo LEMARQUAND(2), Mathieu LUGRIN(2), Cédric CONTENT(2), Clément CAILLAUD(1), Sébastien ESQUIEU(1), Denis SIPP(2) (1) CEA CESTA, France (2) Onera, France	276 Design testing and thermal management of the Scramjet Hypersonic Experimental Vehicle Pietro RONCIONI(1) Oreste RUSSO(1), Antonio FILOSA(1), Marco MARINI(1), Vincenzo PAOLELLA(1), Sara DI BENEDETTO(1), Pasquale NATALE(1), Giovanni COPPOLA(1), Francesco BATTISTA(1), Giuliano RANUZZI(2), Marta ALBANO(2), Friedolin STRAUSS(3) (1) CIRA, Italy (2) ASI, Italy (3) DLR, Germany	42 Sound generation by entropy inhomogeneity within thermally-choked-flow nozzle Frédéric OLIVON, Antoine CHÉDIN, Jean-Etienne DURAND, Aurélien GENOT, Estelle PIOT ONERA, France	146 Investigating the Effects of Porosity on the Dielectric and Mechanical Properties of Additively Manufactured Ceramics Louise SÉVIN, Wael IDRISSI, Céline LE SINQ, Johan PETIT ONERA, France	17 Numerical Analysis on Radiation Effects in Shock Tunnel Experiments Chiara AMATO, Tim HORCHLER, Divek SURUJHLAL, Tobias ECKER, Giannino PONCHIO CAMILLO DLR , Germany
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11:30	151 Mesh Regularization for Hypersonic Flow and Fluid-Structure Coupling in Atmospheric Reentry Jérôme BREIL, Vivien LORIDAN, Laurent MUSCAT CEA, France	203 Stabilization strategies for high order discontinuous Galerkin simulations of hypersonic turbulent flows David HENNEAUX(4), Maxime BORBOUSE(1-2-3), Amaury BILOCQ(1), Nayan LEVAUX(1), Philippe CHATELAIN(3), Pierre SCHROOYEN(2), Koen HILLEWAERT(1-4-2) (1) Université de Liège, Belgium (2) Von Karman Institue, Belgium (3) Université Catholique de Louvain, Belgium (4) Cenaero, Belgium	58 On shock layer linear instabilities Vassilis THEOFILIS Technion - Israel Institute of Technilogy, Israel	278 Total Temperature Measurement in High-speed Flows with Fiber Bragg Grating Sensors Eric BACH(1), Ignacio LASALA(1), Avidh S. BAVKAR(1), Guillermo PANIAGUA(1), Etienne CHOQUET(2), Thierry ANDRE(2) (1) Zucrow Labs, Purdue University, USA (2) MBDA France	267 Shape Optimization of an Air Turbo Rocket Hydrogen Turbine for Off-Design Performance Assessments Karel VAN DEN BORRE, Samuele GATTO, Bayindir H. SARACOGLU Von Karman Institute, Belgium	284 Flow Structures of Liquid Jets in Crossflow Revealed by Spectral and Multiscale Modal Decomposition Ignacio LASALA(2), Eric BACH(2), Guillermo PANIAGUA(2), Etienne CHOQUET(1), Thierry ANDRE(1) (1) MBDA, France (2) Purdue University, USA	296 New Insights into The Temperature Jump Of C/Sic Composites under Extreme Aerothermal Conditions Yifan FU(1-2), Xin LIN(1), Junjie PAN(1), Zezhong WANG(1), Xilong YU(1-2) (1) Institute of Mechanics, Chinese Academy of Sciences, China (2) University of Chinese Academy of Sciences, China	70 Towards free-flight controlled experiment in a supersonic wind-tunnel facility Lucien MALLARD, Jeremy MORAN, Ingo JAHN, David BUTTSWORTH University of Southern Queensland, Australia
12:00	134 Automatic Shock Adaptation in Structured Meshes for Supersonic and Hypersonic Applications Francesco CASCONE, Luigi CUTRONE, Antonio SCHETTINO Centro Italiano Ricerche Aerospaziali, Italy	174 Parametric study of classical instabilities in three-dimensional hypersonic flows Thomas ZIELINSKI(2), José CARDESA(2), Guillaume BEGOU(2), Jean-Philippe BRAZIER(2), Laurent MUSCAT(1), Marina OLAZABAL-LOUMÉ(1) (1)CEA CESTA, France (2) ONERA, France	194 Investigation of different skin friction coefficient calculation methods applicable to the design of hypersonic vehicles using MDAO approaches Paul Russell LANCRY ONERA, France	175 Validation of a Coupled Multiphysics Numerical Framework for ICPs using Plasmatron X Experiments Sanjeev KUMAR, Alessandro MUNAFO, Sean KERNEY, Jason M MEYERS, Gregory ELLIOTT, Kelly STEPHANI, Daniel J BODONY, Marco PANESI University of Illinois at Urbana-Champaign, USA	300 Holistic Modeling of European Reusable Staged-Combustion Rocket Engine SLME Theunis DU TOIT(2), Valentyn BARANNIK(2), Viktor YEVLAKHOV(2), Leonid MOROZ(1), Vasileios PASTRIKAKIS(3), Clement JOLY(1) (1) SoftInWay Inc, USA (2) SoftInWay Switzerland GmbH, Switzerland (3) SoftInWay UK Ltd, United Kingdom	201 Numerical Analysis on Spray Characteristics of a Preheated Liquid Fuel Jet in Supersonic Crossflow Donggyu YUN, Hyunwoo KIM, Hong-Gye SUNG Korea Aerospace UniversitySouth Korea	308 Infiltration of C/C materials by CVI process: from experimental to simulation results Jonathan RAYNAUD MBDA France	108 Outflow characterization of a transpiration cooled fin for the sounding rocket experiment HIFLIER 1 Jonas PEICHL, Giuseppe DI MARTINO, Markus SELZER DLR, Germany
12:30	Lunch							

Exhibition & Posters

Thursday, September 25th, 2025 - Afternoon

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	Chairs: **Pietro Roncioni - CIRA, Italy** **Julien Lefieux - MBDA France**	**Chairs:** **Viviana Lago - ICARE, CNRS, France** **Haoran Yan - Xiamen University, China**	**Chairs:** **Prof. V. Wheatley - University of Queensland, Australia** **Chiara Amato - DLR, Germany**	**Chairs:** **Martin Sippel - DLR, Germany** **Sem De Maag - TNO, The Netherlands**	**Chairs:** **Prof. Bok Jik Lee - Seoul National University, Korea** **Bayindir Saracoglu - Von Karman Institute, Belgium**	**Chairs:** **Tobias Ecker - DLR, Germany** **Seung-Min Jeong - Korea Aerospace Research Institute, South Korea**	**Chairs:** **Laurent Serre - ONERA, France** **Yuchen Han - Harbin Institute of Technology, China**	**Chairs:** **Maxime Lechevalier - MBDA France** **Giang Nguyen - Viettel Aerospace Institute, Vietnam**
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14:30	256 Laminar-to-Turbulent Transition on the BOLT geometry at Mach 7 Loïc SOMBAERT(1), Mathieu LUGRIN(1), Sébastien ESQUIEU(2), Reynald BUR(1) (1) ONERA, France (2) CEA/Cesta, France	258 Coupled Fluid-Structure Simulations of a Clamped Panel at High Speed Bodo REIMANN, Marius FRANZE, Sebastian JACK, Fynn BARZ DLR , Germany	126 Exploring the Transition Reversal Mechanism in Hypersonic Boundary Layers with Consideration of Leading-Edge Receptivity Ming DONG(1), Lei ZHAO(2) (1) Institute of Mechanics, Chinese Academy of Sciences, China (2) Tianjin University, China	262 AMBER rocket - a test bed for hypersonic research Tomasz NOGA, Michał PAKOSZ, Piotr UMIŃSKI, Krzysztof MATYSEK Institute Of Aviation, Poland	80 Design and Experimental Characterisation of a 2D Mach 7 Mixed-Compression Intake Andrew HYSLOP(1), Rowland PENTY GERAETS(1), Sebastien WYLIE(1), Jim MERRIFIELD(1), Matthew MCGILVRAY(2) (1) Fluid Gravity Engineering, United Kingdom (2) University of Oxford, United Kingdom	55 Numerical Investigation of Scramjet Combustor Using Hydrogen Fuel: Comparison of Combustion Models Siyoon KANG, Jae-Eun KIM, Jeong-Yeol CHOI Pusan National University, South Korea	243 Mid-Course Trajectory Optimization for Variable-Flow Ducted Rocket Missile under Radar Detection Angle Constraint Heun-Jae LEE, Boseok KIM, Min-Jea TAHK, Chang-Hun LEE Korea Advanced Institute of Science and Technology, Dajeon, South Korea	357 Experimental verification of PIV-based aerodynamic load reconstruction measurement method for supersonic nozzle Jie TIAN, Kunyuan ZHANG, Jinglei XU Nanjing University of Aeronautics and Astronautics, China
15:00	206 Resolvent Analysis of Nose Bluntness Effects on Hypersonic Boundary-Layer Stability over a Cone Thomas LESCOP(2), Julien LEFIEUX(1), Guillaume BÉGOU(2), Cédric CONTENT(2), Nicolo FABBIANE(2), Pierre NIBOUREL(2), Reynald BUR(2) (1) MBDA France (2) ONERA, France	210 The Influence of Inhomogeneous Mach Number on the Planar Reflection Structure of Oblique Detonation Waves Haoran YAN Xiamen University, China	204 Leading-Edge Shape Effects on Hypersonic Crossflow Receptivity to Slow Acoustic Waves in Swept Flat Plates Caihong SU, Lin HAN Tianjin University, China	190 A Summary of Hypersonic Flight Missions and recent Developments by Mobile Rocket Base Frank SCHEUERPFLUG, Thomas ROEHR Mobile Rocket Base, DLR, Germany	153 Design and Analysis of Hypersonic Intakes for Dual-Mode Scramjet Engines Bayindir H SARACOGLU, Luigi BELLOMO Von Karman Institute, Belgium	184 Numerical Study on Two-phase Flow Combustion in a Supersonic Combustor Using a Nonpremixed Flamelet Model Kim HYUNWOO, Yun DONGGYU, Sung HONG-GYE Korea Aerospace University, South Korea	254 Optimized Multi-Interceptor Deployment Strategy for Hypersonic Targets Using Predictive Reachability Analysis Yuchen HAN, Ming YANG, Ping MA, Tao CHAO Control and Simulation Center, Harbin Institute of Technology, Harbin, China	299 Numerical analysis of utilizing the given blast basket exhaust cluster for small size ramjet testing Giang NGUYEN, Huy NGHIEM, Quyet NGUYEN, Phi-Minh NGUYEN Viettel Aerospace Institute,Viet Nam
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17:30	**Intersession**							
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18:30	**Conference Closing**							

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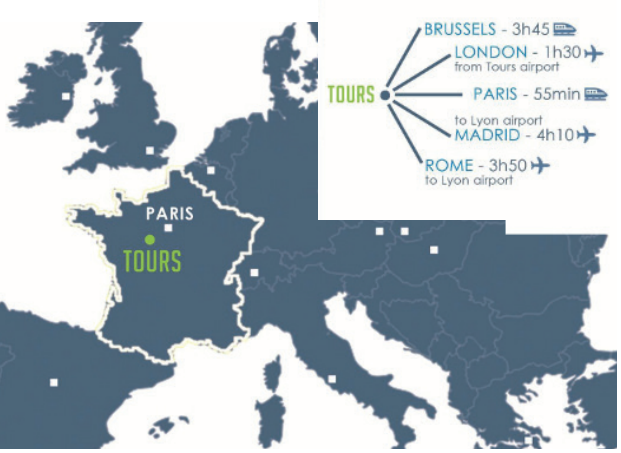

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