Offline AIAA schedule that is actually useful.

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Tuesday, 13 June

09:30 | Technical Paper Session

ATS-06 | In Person - Harbor D

Contingency Planning Toolkit for Emerging Air Mobility Ecosystems

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Alicia Fernandes, Stuart Wilson (Mosaic ATM), Martijn Ijtsma, Abhinay Paladugu (The Ohio State University Department of Integrated Systems Engineering), Tom Davis, Jarrod Lichty (Aerial Vantage)

Impact of VFR traffic uncertainty on Uncrewed Aircraft operational capacity at regional airports

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Vishwanath Bulusu, Heather Arneson, David P Thipphavong, Todd A Lauderdale, Husni R Idris (NASA Ames Research Center)

Agent-Based Modeling of Uncrewed Aircraft System Flight Planning for Airspace Fairness

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Rebekah Yang, Simone Walker, Matthew Prebble, Mark Lesko, Glen Landry, Shaelynn Hales (CNA Corp)

Estimation of Pilot-Controller Communication Congestion and Impacts on Multi-Vehicle Supervisory Operations

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Nadezhda Dimitrova, Husni R Idris (NASA Ames Research Center)

TP-05 | In Person - Golden Hill A

On the Fluid Dynamics Boundary Condition in Ablating or Blowing Flows

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Brett A Cruden (AMA Inc at NASA Ames)

Quantification of Spalling Particles for Carbon Thermal Protection System Materials in Supersonic and Subsonic Flow

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Benjamin M Ringel, Lorenzo Capponi, Laura Villafañe Roca, Francesco Panerai (University of Illinois Urbana-Champaign)

Microstructure and Oxidation Behavior of Fibers and Binders in Charring Ablators

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Sam Chen, Victoria Arias, Kelly Stephani, Francesco Panerai (University of Illinois Urbana-Champaign), Brody K Bessire (NASA Ames Research Center)

In-situ imaging of RTV silicone pyrolysis

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Collin Foster, Sreevishnu Oruganti, Francesco Panerai (University of Illinois Urbana-Champaign)

GA-03/TF-07 | In Person - Harbor E

MROPort for Airworthiness Checks of VTOLs in a Future-Proof Environment

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Jil Eltgen, Thorsten Schüppstuhl (Institute of Aircraft Production Technology)

Optimized capacity allocation in a UAM vertiport network utilizing efficient ride matching

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Majed Swaid, Malte Niklaß (Deutsches Zentrum fur Luft- und Raumfahrt DLR Standort Hamburg)

Rotorcraft takeoff analysis and classification to detect outlier operations that could present a safety risk

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Gabriel Achour, Ricardo F Silva, Alexia P. Payan (Georgia Institute of Technology), Charles C Johnson (Federal Aviation Administration), Dimitri N Mavris (Georgia Institute of Technology)

Ranking Model for Identifying Critical Blockage of Airspace Leading to Significant Airfield Inefficiency

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Huang Feng, Yu Zhang (University of South Florida)

MDO-04 | In Person - Old Town A

Aero-Structural-Acoustic Optimization of Ducted Propellers
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Judd A Mehr, Andrew Ning (Brigham Young University), Eduardo J Alvarez, Andy Le (Whisper Aero Inc.)

RANS-Based Multipoint Aeropropulsive Design Optimization of an Over-Wing Nacelle Configuration
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Mohamed Arshath Saja Abdul Kaiyoom, Anil Yildirim, Joaquim R. R. A. Martins (University of Michigan)

Aerostructural Wing Optimization Using a Surrogate Model of the Structure in a Coupled-Adjoint Formulation
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Joshua Edward Fontana, Pat Piperni (Clarkson University), Zhi Yang, Dimitri J Mavriplis (University of Wyoming)

Combined systems packaging and aerodynamic shape optimization of a full aircraft configuration
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Hannah Hajdik, Bernardo Pacini, Anil Yildirim, Joaquim R. R. A. Martins (University of Michigan)

Multi-fidelity Multi-Objective Optimization of a High-Altitude Propeller
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Nikolaos Mourousias, Ahmed Malim, Benoit G Marinus (Ecole Royale Militaire), Mark Runacres (Vrije Universiteit Brussel)

Multipoint Aeropropulsive Design Optimization of a High-Bypass Turbofan Engine
Tuesday, 13 June 11:10 - 11:30 (UTC-7) | Start:</strong
Andrew H Lamkin, Anil Yildirim, Joaquim R. R. A. Martins (University of Michigan)

APA-18 | In Person - Hillcrest B

Six Degrees of Freedom Free-flight Measurement in the VKI Longshot Wind Tunnel
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Dániel G. Kovács (von Karman Institue for Fluid Dynamics / University of Liege), Guillaume Grossir, Olivier Chazot (Von Karman Institute for Fluid Dynamics Aeronautics and Aerospace Department)

Design and integration of an internal balance prototype for wind tunnel tests of a scaled helicopter model
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Juan Carlos Matias-Garcia, Rafael Bardera (Instituto Nacional de Tecnica Aerospacial), Sebastián Franchini (Universidad Politecnica de Madrid), Estela Barroso Barderas, Suthyvann Sor (Instituto Nacional de Tecnica Aerospacial)

DMD Analysis of Simultaneous Pressure and Deformation Data of a Deformed Wing Measured by Random-dot PSP
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Masato Imai (Tokyo University of Agriculture and Technology), Kazuyuki Nakakita (Japan Aerospace Exploration Agency), Masaharu Kameda (Tokyo University of Agriculture and Technology)

APA-19 | In Person - Hillcrest D

Comparison of Two Aerodynamic Mid-Fidelity Approaches on a Distributed Propulsion Wing
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Nikolai Herzog (Rolls-Royce Deutschland Ltd und Co KG), Dennis Keller (Deutsches Zentrum fur Luft- und Raumfahrt eV), Christian Breitsamter (Technische Universitat Munchen)

Experimental Propeller Placement Analysis for a Distributed Propulsion Wing Section in High Lift Configuration
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Till K Lindner, Jonas Oldeweme, Peter Scholz, Jens Friedrichs (Technische Universitat Braunschweig Institut fur Stromungsmechanik)

Hybrid RANS-LES Overset Grid Simulations of a Contra-Rotating Open Rotor
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Andrew C Kirby, Zhi Yang, Enrico Fabiano, Dimitri J Mavriplis (Scientific Simulations LLC)

Sensitivity Analysis and Surrogate Modeling of CFD Data of Propeller-Wing Interactions
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Maximilian Kern, Mário Firnhaber Beckers, Michael Schollenberger, Thorsten Lutz (Universitat Stuttgart)

Experimental Parameter Study of Distributed Electric Propulsion on a 2D Wing Model in High-Lift Configuration
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Alex Gothow, Julien Weiss, Andreas Bardenhagen (Technische Universitat Berlin), Dominique Paul Bergmann, Jan Denzel, Andreas Strohmayer (Universitat Stuttgart)

APA-53 | In Person - Harbor C

AA-13 | In Person - Cortez Hill B

Effect of Deflection Angle on the Noise and Aerodynamic Loads Generated by a Wall-Mounted Flat Plate
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Owen Parnis, David Angland (University of Southampton)

Reduction of tonal noise of a NACA 0012 airfoil by roughness elements
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Roy E Alva (Instituto Tecnologico de Aeronautica), Zhenyang Yuan (Kungliga Tekniska Hogskolan), Tiago Araujo (Instituto Tecnologico de Aeronautica), Filipe Ramos Amaral (Universite de Poitiers), Ardeshir Hanifi (Kungliga Tekniska Hogskolan), André Valdetaro Gomes Cavalieri (Instituto Tecnologico de Aeronautica)

Study of the Inflow Turbulence Distortion for Airfoils and Cylinders
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Fernanda Leticia dos Santos, Cornelis H. venner (Universiteit Twente), Leandro D. de Santana (DNW)

Experimental Investigation of Tonal Noise Radiation from Trapezoidal Cylinders in Cross-Flow
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Thomas F Geyer (German Aerospace Center (DLR) Cottbus, Institute of Electrified Aero Engines), Rishi V Velpula, Sparsh Sharma (Brandenburgische Technische Universitat Cottbus-Senftenberg)

Interdependencies of Aerodynamic Test Conditions and High Lift System Noise Generation and Measurement
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Meike Jansen, Michael Pott-Pollenske (Deutsches Zentrum fur Luft- und Raumfahrt eV)

CFD-09 | In Person - Solana Beach A

A Projection-based Reduced Order Modeling Approach with SU2
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jessica T Lauzon, Juan J Alonso (Stanford University)

On the Dynamic Mode Decomposition of the Flow Over an Idealized Ground Vehicle at High Reynolds Number
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Adit Misar, Mesbah Uddin (UNC Charlotte)

A Globally Convergent Method to Accelerate PDE-constrained Optimization Using On-the-fly Model Hyperreduction
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Tianshu Wen, Matthew Joseph Zahr (University of Notre Dame)

APA-16 | In Person - Hillcrest C

Comparison of Steady and Unsteady RANS with experimental data for a Thrust Reverser Unit
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Houda Bdeiwi (Aircraft Research Association Ltd)

Modelling of Transonic Buffet Alleviation via Spoilers
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Andrea Petrocchi, George N Barakos (University of Glasgow)

Numerical Analysis of Aerodynamic Flap Hinge Moment under Unsteady Flow Conditions considering Laminar-Turbulent Transition
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Carlos Sebastia, Mirko Hornung (Technische Universitat Munchen)

Investigation of High-Speed Cavity Flow with Comparison to Experiment
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Laura Holifield (Air Force Research Laboratory), Jonathan Poggie, Gregory A Blaisdell (Purdue University)

Aerodynamic Analysis of Hybrid Aerial Vehicle for Venus Exploration
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Addison D Miller, Jesus G Rosales, Edgar Nunez, Andreas Gross, Nancy Chanover (New Mexico State University)

UAS-03 | In Person - Gaslamp B

Risk Identification and Mitigations in Advanced Air Mobility Operations
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Antoni Kopyt (Warsaw University of Technology, Politechnika Warszawska, Warszawa, PL, academic)

Real-Time Optimal Route Planning by Deep Reinforcement Learning and Validation with Flight Test
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Junki Shim, Jaejun Jang, Nicholas Chaehoon Song (Gwangju Institute of Science and Technology), Jae-Young Choi (Virginia Polytechnic Institute and State University), Gwonyeol Lee (Gwangju Institute of Science and Technology), Rachit Prasad (Virginia Polytechnic Institute and State University), Seongim Choi (Gwangju Institute of Science and Technology)

(continued) UAS-03 | In Person - Gaslamp B

Determination of a Probabilistic Collision Risk Model for joint VLL Operations of Manned and small Unmanned Aircraft at an Uncontrolled Airfield
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Svenja Huschbeck, Maarten Uijt de Haag (Technische Universitat Berlin)

Heuristic Approach for Aircraft Assignment and Maintenance Scheduling of On-demand Urban Air Mobility Vehicles
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Patrick Sieb (Deutsches Zentrum fur Luft- und Raumfahrt DLR Standort Hamburg)

Precision Landing Techniques for Drones Deployed from an Unmanned Ground Vehicles in Underground Spaces
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
John Racette, Chase Dunaway, James Montoya, Chris Dinelli, Mario A Escarcega, Hassan Khaniani, Sihua Shao, Pedram Roghanchi, Mostafa Hassanalian (New Mexico Institute of Mining and Technology)

CFD-10 | In Person - Ocean Beach

Direct Numerical Simulation of Acoustically-Driven Transition in a Hypersonic Wind Tunnel
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Geoffrey Andrews (Massachusetts Institute of Technology Lincoln Laboratory), Jonathan Poggie (Purdue University)

Extending One-Equation Local Correlation-Based Transition Model for Spalart-Allmaras Turbulence Model
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Subramanian Vallinayagam Pillai, Sylvain Lardeau (Siemens AG)

Direct Numerical Simulations of the Nonlinear Boundary Layer Transition Regime on a Blunt Swept Flat Plate at Mach 6
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Madlen Leinemann (The University of Arizona), Anthony P Haas (Los Alamos National Laboratory), Christoph Hader, Hermann F Fasel (The University of Arizona)

Comparison and Possible Improvements for Transition Models in Reynolds-Averaged Navier-Stokes Simulations for Three-Dimensional Flows
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Arturo Cajal, Alejandra Uranga (University of Southern California)

APA-17 | In Person - Torrey Hills B

Implementation and Verification of the SST-γ and SA-AFT Transition Models in FUN3D
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Nathaniel J Hildebrand, Meelan M Choudhari (NASA Langley Research Center), Balaji S. Venkatachari (National Institute of Aerospace)

Evaluation of Transport-Equation-Based Transition Models for High-Speed Boundary Layers Using OVERFLOW
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Ethan Vogel, Balaji S. Venkatachari (National Institute of Aerospace), Meelan M Choudhari (NASA Langley Research Center)

Transition Modeling based on the Dual N-factor Method for the CRM-NLF Wind Tunnel Configuration
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Pedro Paredes, Balaji S. Venkatachari (National Institute of Aerospace), Meelan M Choudhari, Fei Li (NASA Langley Research Center)

Implementation and Assessment of Menter's Galilean-Invariant γ Transition Model in OVERFLOW
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Balaji Shankar Venkatachari (National Institute of Aerospace), Samuel A Gosin (The Pennsylvania State University), Meelan M Choudhari (NASA Langley Research Center)

Airfoil Stall modeling via Roughness Amplification Model Coupled to Correlation-Based Transition Model
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Charles Bilodeau-Bérubé, Eric Laurendeau (Polytechnique Montreal)

AA-14 | In Person - Cortez Hill C

A Computational and Experimental Investigation into Jet Aeroacoustics for Improved Ground Test Design
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Stephen Arnold, Christopher Romanoski, Stephen Guimond (AEDC)

Validation of the Fast Random Particle-Mesh Method for Broadband CAA of a Forward-Facing Step and its prediction sensitivity for geometrical modifications
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Philipp Alexander Uhl, Alexander Schell (Mercedes-Benz Group AG Group Research & MBC Development Sindelfingen), Roland Ewert, Jan Delfs (Deutsches Zentrum fur Luft- und Raumfahrt eV)

(continued) AA-14 | In Person - Cortez Hill C

Reformulated Flow-Acoustics Splitting for RANS/CAA based Acoustic Metrics: Tip Leakage Flow Problem
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Stanislav Proskurov, Roland Ewert (Deutsches Zentrum fur Luft- und Raumfahrt eV)

DGE-02/DE-03 | In Person - Gaslamp A

Geometry Modeling to Support the Digital Thread - Panel Review
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
John Dannenhoffer (Syracuse University), Nigel Taylor (MBDA UK Ltd)

Aircraft Design and Supply Chain Co-optimization Using Multi-commodity Network Flow Analysis
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Elwyn Sirieys, Daniel C Gochenaur, Olivier L De Weck (Massachusetts Institute of Technology)

Using fmdtools Models as Low-fidelity Digital Twins for Operational Support and In-time Decision Making
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Lukman Irshad (KBR Inc), Daniel Hulse (NASA Ames Research Center)

Extended Kalman Filter for Aircraft State Estimation in Microsoft AirSim Reducing the Simulation-Reality Gap
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Suman Subedi, Lukas Höhndorf (Industrieanlagen-Betriebsgesellschaft mbH), Jun Shi, Xiang Fang (Technische Universitat Munchen), Zardosht Hodaie (Industrieanlagen-Betriebsgesellschaft mbH), Florian Holzapfel (Technische Universitat Munchen)

Sensor Fusion Considering Probabilistic Object Detection Results for Aircraft State Estimation
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Suman Subedi, Lukas Höhndorf, Rafal Kulaga, Zardosht Hodaie (Industrieanlagen-Betriebsgesellschaft mbH), Jun Shi, Xiang Fang, Florian Holzapfel (Technische Universitat Munchen)

AA-15 | In Person - Torrey Hills A

Acoustic Liner Drag: Measurement Uncertainty Reduction and Application to Novel Perforate Geometries
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Brian M Howerton, Michael G Jones (NASA Langley Research Center Structural Acoustics Branch)

Assessment of Nonlocally Reacting Effects of Large Diameters on the Acoustic Impedance of Perforate-Over-Honeycomb Liners
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Martha C Brown, Chelsea Dodge, Michael G Jones (NASA Langley Research Center)

Validation of Noise Propagation for Lined Inlets
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Alexander A Svetgoff, David Stephens (NASA)

Validation of High-Fidelity Numerical Simulations of Acoustic Liners Under Grazing Flow
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Lucas Meirelles Pereira, Lucas A Bonomo, Andrey Ricardo da Silva, Julio A. Cordioli (Universidade Federal de Santa Catarina), Francesco Avallone (Technische Universiteit Delft)

Acoustic modelling of Over-the-Rotor liners
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Ramesh Raja Subramanyam, Suresh Palani, Chaitanya Paruchuri, Sergi Palleja-Cabre (University of Southampton)

Optimization of a Dielectric Elastomer Acoustic Liner
Tuesday, 13 June 11:10 - 11:30 (UTC-7) | Start:</strong
Chelsea Dodge (NASA Langley Research Center Structural Acoustics Branch), Louis N Cattafesta (Illinois Institute of Technology)

ACD-07 | In Person - Balboa B

Propulsion System Structural Response to Variation in Aircraft Architecture
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Stephen Colbert, D. Quinn, Declan Nolan (Queen's University Belfast), Jillian Gaskell, Rob Fox (Rolls-Royce plc)

Flying Wing and Blended Wing-Body Aircraft Landing Gear Design Considerations
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Phillip W Richards (SDI Engineering Inc.)

Scenario-based implications of liquid hydrogen storage tank insulation quality for a short-range aircraft concept
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Tim Burschyk, Daniel Silberhorn, Jennifer Wehrspohn, Thomas Zill (Deutsches Zentrum fur Luft- und Raumfahrt eV)

(continued) ACD-07 | In Person - Balboa B

A modeling approach for trailing edge flap forces and moments in the preliminary aircraft design stage

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Ralph Stephan, Cedric Heyen, Eike Stumpf (Institute of Aerospace Systems - RWTH Aachen University), Johannes Ruhland, Christian Breitsamter (Chair of Aerodynamics and Fluid Mechanics - Technical University Munich)

FD-09 | In Person - Mission Beach A

On the performance of small-sized venturi flowmeters in cavitating and non-cavitating flow regimes

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Max Kandula (KBR), Brian M Nufer (NASA)

Design and testing of an acoustic-to-flow energy conversion device

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Kelvin M Figueroa-Ibrahim (University of Notre Dame), Eoghan P. Ross, Gareth J Bennett (The University of Dublin Trinity College), Scott Morris (University of Notre Dame)

Estimating Coanda Valve Control Authority Using a Tailless Subscale UCAS Aircraft

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Sai Simon, David R Williams (Illinois Institute of Technology), Steven Brandt, Ryan Osteroos, Matthew J Munson (US Air Force Academy)

Investigations of Switched Vortex Valves with Helium

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Jack Proudfoot, Brian Tang, Marko Bacic (University of Oxford)

AA-16 | In Person - Cortez Hill A

Controlled Diffusion airfoil self-noise, an acoustic far-field prediction

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Andrea Arroyo Ramo, Stéphane Moreau (Universite de Sherbrooke Faculte de Genie), Richard D. Sandberg (The University of Melbourne), Michaël Bauerheim (ISAE-SUPAERO), Marc C Jacob (Ecole Centrale de Lyon)

The impact of airfoil thickness on airfoil stalling behavior and airfoil self-noise: an experimental investigation of two NACA series cambered airfoils

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

John Branch, Bin Zang, Mahdi Azarpeyvand (University of Bristol)

Noise generated from two flat plates in tandem configuration in turbulent mean flow

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Sergi Palleja-Cabre, Chaitanya Choudary Paruchuri, Phillip Joseph (University of Southampton)

Data-driven Empirical Wall pressure Spectrum Models for Fan Noise Prediction

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Shubham Shubham (The University of Melbourne), Saurabh Pargal, Stéphane Moreau (Universite de Sherbrooke Faculte de Genie), Richard D. Sandberg (The University of Melbourne), Junlin Yuan (Michigan State University), Abhijit Kushari (Indian Institute of Technology Kanpur), Marlene Sanjose (Ecole de technologie superieure)

Acoustics of turbulent eddies impinging on a semi-infinite rigid wedge

Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong

Marios I Spiropoulos, Florent Margnat, Vincent Valeau, Peter Jordan (Universite de Poitiers)

Improved numerical stability of the boundary loss factor in ground-reflection corrections

Tuesday, 13 June 11:10 - 11:30 (UTC-7) | Start:</strong

Martin Doherty (ESDU, S&P Global Engineering Solutions)

MVCE-01 | In Person - Pier

On Managing Geometric Models for Multi-component, Multi-disciplinary Analysis and Design

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

John Dannenhoffer (Syracuse University, Syracuse University, Syracuse, NY, US, academic), Nitin D. Bhagat (University of Dayton Research Institute)

CAPS and M4 Structures Studio Interfacing and Integration

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Thomas Nascenzi, Timothy Cuatt, Shaadi Sabeti, Tyler F Winter (M4 Engineering, Inc.), Ryan J Durscher, Joshua D Deaton (Air Force Research Laboratory)

Free-Form Deformation of Parametric CAD Geometry via B-Spline Transformations

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Marlena Gomez, Marshall C Galbraith, Robert Haimes (Massachusetts Institute of Technology)

(continued) MVCE-01 | In Person - Pier

Towards Distributed Speculative Adaptive Anisotropic Parallel Mesh Generation
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Kevin M Garner, Christos Tsolakis, Polykarpos Thomadakis, Nikos Chrisochoides (Old Dominion University)

TF-08/GA-04 | In Person - Harbor F

Revisiting "Critical-Engine-Inoperative" Conditions for Distributed Hybrid-Electric Aircraft
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jiacheng Xie, Mayank V. Bendarkar, Yu Cai, Dimitri N Mavris (Georgia Institute of Technology)

Investigation of Energy Reserve Requirements for eCTOL and eVTOL using a Trajectory Energy Management Simulation
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Johannes Verberne, Yoonjae Lee, Cedric Y Justin, Dimitri N Mavris (Georgia Institute of Technology)

Automated Identification of Phase of Flight via Probabilistic Clustering for General Aviation Operations
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Georgios Georgalis (Tufts University), Nicoletta Fala (Oklahoma State University)

An Extended MBSE Framework for Regulatory Analysis of Aircraft Architectures
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Archana Tikayat Ray, Mayank V. Bendarkar, Evan Harrison, Taylor M Fields, Stephen Glinski, Elena Garcia, Dimitri N Mavris (Georgia Institute of Technology)

Designing eVTOL and UAM Aircraft for Flight Safety, EMP, EMI and HIRF Resistance, FAA Certification, Insurability, Ground Safety and Community Acceptance
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Ronald M Barrett-Gonzalez, Mason Denneler, Zach Schwab, Micaela Crispin (University of Kansas School of Engineering)

Safety Implications of Pilot Incapacitation Occurrences for Future Single Pilot Operations
Tuesday, 13 June 11:10 - 11:30 (UTC-7) | Start:</strong
Alexander Somerville, Timothy Lynar, Graham Wild (Australian Defence Force Academy)

AA-17 | In Person - Harbor B

The Role of Non-linear Azimuthal-mode Interactions in Sound Radiation of Turbulent Jets
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Ravee Pathya, Daniel M Edgington-Mitchell (Monash University), Peter Jordan (Universite de Poitiers), Petrônio A. S. Nogueira (Monash University)

Examination of the acoustic spectrum in the generalized acoustic analogy for heated flows - temperature coupling effects vs direct enthalpy flux generated noise
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Sarah A Stirrat (University of Strathclyde), Mohammad Z.A Koshuriyan (University of York), Adrian Sescu (Mississippi State University)

Linear Interaction Approximation for the Prediction of Noise Generated by Turbulence/Shock Interaction
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Stewart J Leib (HX5, LLC/ NASA Glenn Research Center)

Prediction wavepackets in elliptical jets using 3D one-way Navier-Stokes equations
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Petrônio A. S. Nogueira, Joel Weightman, Daniel M Edgington-Mitchell (Monash University)

Modeling self-noise in turbulent jets using one-dimensional turbulence and Lighthill's equation
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Sparsh Sharma, Marten Klein (Brandenburgische Technische Universitat Cottbus-Senftenberg), Thomas F Geyer (Deutsches Zentrum fur Luft- und Raumfahrt eV), Juan A. Medina Méndez, Heiko Schmidt (Brandenburgische Technische Universitat Cottbus-Senftenberg)

MDO-05 | In Person - Old Town B

Convolutional Neural Network for Non-Linear Transonic Flow-Field Prediction
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Sanjeeth Sureshbabu, Fernando Tejero, Francisco Sanchez-Moreno, David G MacManus (Cranfield University Cranfield School of Aerospace Transport and Manufacturing), Christopher Sheaf (Rolls-Royce plc)

Design Space Reduction using Multi-Fidelity Model-Based Active Subspaces
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Bilal Mufti, Christian Perron, Raphaël Gautier, Dimitri N Mavris (Georgia Institute of Technology)

Inverse Machine Learning Prediction for Optimal Tilt-Wing eVTOL Takeoff Trajectory
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Shuan-Tai Yeh (University of Michigan), Guirong Yan, Xiaosong Du (Missouri University of Science and Technology)

(continued) MDO-05 | In Person - Old Town B

Surrogate-based Optimal Multidisciplinary Takeoff Trajectory Design for Electric Drones
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Xiaosong Du, Guirong Yan (Missouri University of Science and Technology)

ACD-06 | In Person - Balboa A

DLR Project Diabolo: An Approach for the Design and Technology Assessment for Future Fighter Configurations
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Carsten M Liersch, Andreas Schuette, Erwin Moerland (Deutsches Zentrum fur Luft- und Raumfahrt eV), Mario Kalanja (Airbus Defence and Space GmbH)

Tactical Electric Missile Design
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Ronald M Barrett-Gonzalez, Nathan Wolf, Joseph Coldiron (University of Kansas School of Engineering)

Conceptual Design and Analysis of a Combat Aircraft with Folding Vertical Tails
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
D. Felix Finger, Julius W. Quitter, Matthias Strack (Airbus Defence and Space GmbH)

Flying with Eyes Wide Shut - A Reflection on the Hollywood View of Real World Aircraft Performance
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Timothy T Takahashi (Arizona State University Ira A Fulton Schools of Engineering)

Fighter Design and Fleet Effectiveness Evaluation via System of Systems Battlespace Simulation
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Tobias Dietl, Prajwal Shiva Prakasha, Matthias Schmitz, Thomas Zill, Björn Nagel (Deutsches Zentrum fur Luft- und Raumfahrt DLR Standort Hamburg), Nick Pinson (Battlespace Simulations, Inc.)

System of Systems Architecture Framework for Combat Effectiveness Evaluation using Battlespace Simulations
Tuesday, 13 June 11:10 - 11:30 (UTC-7) | Start:</strong
Prajwal Shiva Prakasha (Deutsches Zentrum fur Luft- und Raumfahrt eV)

TP-06 | In Person - Golden Hill B

Modeling of Electronic Excitation in Weakly Ionized Nitrogen Mixtures
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Timothy T Aiken, Iain D Boyd (University of Colorado Boulder)

Collisional Radiative Model to Estimate Nitric Oxide Vibrational Level Populations in High Mach Number Flows
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Shubham Thirani, Irmak Taylan Karpuzcu, Deborah A Levin (University of Illinois Urbana-Champaign)

Analysis of communication blackout mitigation in Martian atmospheric entry with active MHD flow control systems
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Vatsalya Sharma, Vincent Giangaspero (Katholieke Universiteit Leuven), Alessandro Munafò (University of Illinois Urbana-Champaign), Andrea Lani, Steafaan Poedts (Katholieke Universiteit Leuven)

Investigation into the Discrepancy Between Shock Tube Radiation Data and Simulations at Low Speed Conditions
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Alex Benjamin Glenn, Justin Clarke, Joseph Steer, Peter L Collen, Matthew McGilvray (University of Oxford)

GT-03 | In Person - Promenade A

Development of Compact LWIR Borescope Sensor for Non-contact 2D Engine Component Surface Temperature Measurement
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Awnik Roy (Miami Valley School), Paul S Hsu, Andy Zhang, Trevor Chen (Spectral Energies), Bibik Oleksandr, Subodh Adhikari, Benjamin L Emerson, Timothy Lieuwen (Georgia Institute of Technology)

System Identification and Compensation for Pressure Transducers with Short Pneumatic Tubing
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Emma W Farnan, Thomas J Juliano (University of Notre Dame)

Development and Characterization of High-Temperature Dynamic Pressure-Sensitive Paint
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Chase Jenquin, Ethan Johnson (NC State University), Autumn Garner, Christopher Clifford, Scott J Peltier (Air Force Research Laboratory Aerospace Systems Directorate)

(continued) GT-03 | In Person - Promenade A

Limitations of Bergh and Tijdeman Approach in Modeling the Dynamic Response of Tubing Systems in Remote Pressure Senor Installations

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Pourya Nikoueeyan, Michael Hind, Benjamin Wimpenny, Marvin Perry, William Schutz, John Strike (Resono Pressure Systems, INC.), Jonathan W Naughton (University of Wyoming)

A Field-Deployable Wireless Data Acquisition System for Ground-Test Arrays

Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong

Chip Patterson, James R Underbrink, Rachel Collins, Austin Kee, Alan Gurlaskie, Dan D'Andrea, David A Mills (IC2 (Interdisciplinary Consulting Corp))

Characterizing Jet Impingement with Wall Shear Sensors

Tuesday, 13 June 11:10 - 11:30 (UTC-7) | Start:</strong

Daniel Simmons, Ryan J Meritt, Nicholas J Molinaro (Ahmic Aerospace)

ASE-01 | In Person - Cove

Stratospheric Turbulence Measurements using Meteorological Balloons and FiSH

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Wenbo Zhu, Shaun Skinner, Stuart J Laurence (University of Maryland at College Park), Sonia Wharton, Alan Hidy, Thomas Ehrmann (Lawrence Livermore National Laboratory)

In-situ Measurements of SAF Emissions and Young Contrails

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Anthony P Brown (NRC Canada)

Optical Flight Research of SAF Effects upon Contrail Generation

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Anthony P Brown (NRC Canada)

High Altitude Impacts on Solar Cell Operation

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Meghana Fathepure, Nicco Wang, John Clemmons, Jamey D Jacob (Oklahoma State University)

PDL-03 | In Person - Promenade B

Simultaneous Laser Ignition and Laser-Induced Breakdown Spectroscopy of a Hydrocarbon Flame

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Parneeth Lokini, Ciprian Dumitrache, Bret C Windom, Azer P Yalin (Colorado State University)

Comparison of Nanosecond and Direct Current Discharges for Scramjet Flame Anchoring

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Bernard Parent, Spencer LaFoley (University of Arizona), Igor V Adamovich (The Ohio State University)

Scramjet Engine Ignition by NS Aperiodic Discharge

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Andrey Starikovskiy, Yiguang Ju (Princeton University), Michael Klassen (Combustion Science & Engineering)

Towards Plasma-Assisted Combustion Using a Continuous Optical Discharge

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Mozhdeh Hooshyar, Azer P Yalin, Ciprian Dumitrache (Colorado State University)

Pulsed Spark Plasma Reactor for Co-Production of Hydrogen and Solid Carbons from Methane

Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong

Andrey Starikovskiy, Yiguang Ju (Princeton University)

AA-18 | In Person - Harbor A

Aeroacoustic investigation of a ducted tail rotor

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Prateek Jaiswal, Jose Rendon, Yann Pasco (Universite de Sherbrooke), Marlène Sanjosé (Ecole de technologie superieure), Stephane Moreau (Universite de Sherbrooke)

Numerical Aeroacoustic Study of Small Ducted Coaxial Counter-rotating UAV Propellers

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Muwanika Jdiobe, Takao Suzuki (The Boeing Company), Richard Gaeta, Kurt P Rouser (Oklahoma State University)

Advances in Modeling of Aft-Emitted Tonal Noise from a Ducted Fan

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Dimitri Papamoschou (University of California Irvine)

(continued) AA-18 | In Person - Harbor A

Interaction noise for a rotor-stator assembly in a short duct

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Arnaud Le Floc'h, Marlene Sanjose (Ecole de technologie superieure)

Investigation of the Near Acoustic Field of a Ducted Fan

Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong

Kyle Miller, David Morata, Dimitri Papamoschou (University of California Irvine)

ATS-05 | In Person - Balboa C

Safe Trajectory Planning for Safety Critical Drone Delivery

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Amin Almozel, Eric M Feron, Safa I Saber (King Abdullah University of Science and Technology), Christian Cloiseau (Thales SA), Karen Vanderventer (Thales Underwater Systems Neuilly-sur-Seine)

Capturing Complex Multivariate Time Series Interactions to Detect High-Risk Adverse Events During Flight

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Ezequiel Juarez Garcia, Markus L. Mulvihill, Mark S. Kharab (University of Florida), Chad L. Stephens (NASA Langley Research Center), Nicholas J Napoli (University of Florida)

Implementing a Sequential Monte Carlo Sampler for Subset Simulation

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Marco Pfahler, Florian Holzapfel (Technische Universitat Munchen)

Investigation of Degradation Modeling for Aircraft Structures: A Systematic Literature Review

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Lukas Jilke, Florian Raddatz, Gerko Wende (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Safety Assured Trajectory Planning Based on Data-driven Probabilistic Reachable Set

Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong

Pengcheng Wu, Jun Chen (San Diego State University)

HSABP-03 | In Person - Gaslamp D

Analysis and Optimization of an Ejector Ramjet using CFD and a 1D Control Volume Solver

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Derek Lastiwka, Artem Korobenko, Craig T Johansen (University of Calgary)

Pre sizing and study of a hybrid rocket based combined cycle

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Laurine Hillon (HyPr SPACE), Jean-Denis Parisse (Ecole de l'air), Alexandre Mangeot (HyPr SPACE)

The Inverse Design of Scramjet Configurations with Optimal Thrust

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Dehua Feng, Yang Gao, Frederick Ferguson (North Carolina Agricultural and Technical State University)

FD-11 | In Person - Mission Beach B

Unsteadiness of Mach 5 Ramp-Induced Shock-Wave/Boundary-Layer Interaction using high-speed PIV and fast-response PSP

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Yoo-Jin Ahn, Marc A Eitner, Jayant Sirohi, Noel T Clemens (The University of Texas at Austin)

Surface Time-Space investigation of a Mach 2 Turbulent SBLI by Means of a PVDF Piezo-Film Sensor Array.

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Cosimo Corsi, Julien Weiss (Technische Universitat Berlin), Bei Wang, Ha-Duong Ngo (Hochschule fur Technik und Wirtschaft Berlin)

Optical Analysis of Cylinder-Induced Shockwave-Boundary Layer Interactions on a Flat Plate with Varying Angle of Attack

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Lauren E Lester, Zane M Shoppell, Shelby Y Ledbetter, Farhan Siddiqui, Mark Gragston, Phillip A Kreth, John D Schmisseur (The University of Tennessee Space Institute)

Three-Dimensional Mean Flow Characteristics of a Double-Fin Generated Shock-Wave/Boundary-Layer Interactions From Scanning Stereoscopic PIV

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Serdar Seckin, MyungJun Song (Florida State University), Fernando Zigunov (Los Alamos National Laboratory), Farrukh S Alvi (Florida State University)

FD-10 | In Person - Mission Beach C

RBF-FD-based global resolvent analysis: the Blasius boundary layer
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Tianyi Chu, Oliver Thomas Schmidt (University of California San Diego)

Linear and non-linear mechanisms of streak growth in a Blasius boundary layer
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Diego C. P. Blanco, André Valdetaro Gomes Cavalieri (Instituto Tecnologico de Aeronautica), Dan Henningson, Ardeshir Hanifi (Kungliga Tekniska Hogskolan)

Local stability analysis of annular swirling jets
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Bernardo Vasconcellos, Eduardo Martini, Vincent Jaunet, Eric Foucault, Peter Jordan (Institut Pprime-CNRS)

Receptivity analysis of transversal and oblique modes in unstably stratified horizontal boundary layers under mixed convection
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Gabriel Y R Hamada, William Wolf (University of Campinas), Diogo Pitz (Universidade Federal do Parana), Leonardo Santos de Brito Alves (Fluminense Federal University)

Using Linear-Stability Theory to Build Transition Models
Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong
Anthony P Haas, Daniel M Israel (Los Alamos National Laboratory)

Resolvent Analysis of Laminar Separation Bubble on Eppler 387 Airfoil
Tuesday, 13 June 11:10 - 11:30 (UTC-7) | Start:</strong
Andreas Gross (New Mexico State University), Christopher R Marks, Rolf Sondergaard (Air Force Research Laboratory)

FD-08 | In Person - Solana Beach B

Lagrangian analysis of high intensity shock–turbulence interaction
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Pranav B. Thakare, C. P. Premchand, Krishnendu Sinha, Vineeth Nair (Indian Institute of Technology Bombay)

Direct Numerical Simulation of High-Speed Boundary-Layer Separation due to Backward Facing Curvature
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Gary Lloyd Nicholson, Logan Szajnecki, Lian Duan (The Ohio State University), Nicholas J Bisek (Air Force Research Laboratory)

Hypersonic Boundary-Layer Transition over a Blunt Circular Cone in a Mach 8 Digital Wind Tunnel
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Mateus Schuabb, Lian Duan (The Ohio State University), Anton Scholten (NC State University), Pedro Paredes (National Institute of Aerospace), Meelan M Choudhari (NASA Langley Research Center)

On the Relevance of Atmospheric Particles for Hypersonic Transition in Free-Flight
Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong
Christoph Brehm (University of Maryland at College Park), Vincenzo Russo (University of Kentucky), Sayed Mohammad Abdullah Al Hasnine, Bijaylakshmi Saikia (University of Maryland at College Park)

SPSN-02 | In Person - Gaslamp C

Measuring fluid structure interaction in a cantilevered panel using optical fiber Bragg Gratings
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Luke Pollock, Harald Kleine, Andrew Neely, Graham Wild (Australian Defence Force Academy)

Enhancing Supersonic Rudder Control Surface Using Co-flow Jet Active Flow Control
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Zhijin Lei, Gecheng Zha (University of Miami)

Concluding the Development of C/C-SiC with Random Microstructure as Ultrasonically Absorptive Thermal Protection Material for Hypersonic Transition Suppression
Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong
Alexander Wagner, Giannino Ponchio Camillo, Divek Surujhlal, Jan Martinez Schramm, Viola Wartemann, Christian Dittert, Carolin Rauh (Deutsches Zentrum fur Luft- und Raumfahrt eV)

MST-03 | In Person - La Jolla A

A Strategy for Efficient and Automated Validation and Verification of Maneuverability Requirements - Draft -
Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong
Maximilian A. J. Wechner, Michael Maria Marb, Florian Holzapfel (Technische Universitat Munchen)

Bayesian Safety Validation for Black-Box Systems
Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong
Robert J Moss, Mykel J Kochenderfer (Stanford University), Maxime Gariel, Arthur Dubois (Xwing)

(continued) MST-03 | In Person - La Jolla A

An integrated heterogeneous computing framework for ensemble simulations of laser-induced ignition

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Kazuki Maeda, Thiago Teixeira, Jonathan M Wang (Stanford University School of Engineering), Jeffrey Hokanson (University of Colorado Boulder), Caetano Melone (Stanford University School of Engineering), Mario Di Renzo (CERFACS), Steve Jones, Javier Urzay, Gianluca Iaccarino (Stanford University School of Engineering)

Development of an AFCS SIL Twin for Autopilot Software Design and Integration

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Serkan Demirer (Tusas-Turk Havacilik ve Uzay Sanayii AS)

INPSI-04 | In Person - Bankers Hill

Evaluation of a subsonic fluidic thrust vectoring concept - Part 1: Numerical investigation of the steady and transient behaviour

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Nils Schwagerus, Jonas Remiger, Marcel Stößel, Dragan Kozulovic (Universitat der Bundeswehr Munchen Fakultat fur Luft- und Raumfahrttechnik), Michael Krummenauer (Bundeswehr Technical Center for Aircraft and Aeronautical Equipment)

Evaluation of a subsonic fluidic thrust vectoring concept - Part II: Impact on Propulsion System and Mission Performance

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Jonas Remiger, Nils Schwagerus, Marcel Stößel, Dragan Kozulovic (Universitat der Bundeswehr Munchen), Michael Krummenauer (Bundeswehr Technical Center for Aircraft and Aeronautical Equipment)

Influence of the Engine Exhaust on the Wing Pressure Distribution, Computed with an Integrated Simulation of Airframe and Running Engine

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Jan Mueller, Kazuhisa Chiba (Denki Tsushin Daigaku), Yoshinori Oba (IHI Co.)

Traversing Nozzle Probe in Small Gas Turbine Engines

Tuesday, 13 June 10:30 - 10:50 (UTC-7) | Start:</strong

Kaitlyn Brendlinger, Mason Stocke, Jordan Taylor (Innovative Scientific Solutions, Inc.), Nicholas Grannan, Mark Fernelius (Air Force Research Laboratory)

NUMERICAL OPTIMIZATION OF HIGH CONVOLUTED SERPENTINE AIR INLET DUCT USING RESPONSE SURFACE METHODOLOGY

Tuesday, 13 June 10:50 - 11:10 (UTC-7) | Start:</strong

Omer Faruk YAHSI, Mehmet Halil YILMAZ, Erkan Gunaydinoglu (Tusas-Turk Havacilik ve Uzay Sanayii AS), Yusuf OZYORUK (Orta Dogu Teknik Universitesi)

APA-15 | In Person - Hillcrest A

An Experimental Study to Characterize the Effects of Ice Accretion on the Aerodynamic Performance of an Offshore Wind Turbine Blade Model

Tuesday, 13 June 09:30 - 09:50 (UTC-7) | Start:</strong

Haisha Sista, Jincheng Wang, Haiyang Hu, Hui Hu (Iowa State University)

Aerodynamic Rotor Design for a 25 MW Offshore Downwind Turbine

Tuesday, 13 June 09:50 - 10:10 (UTC-7) | Start:</strong

Michael W Jeong, Eric Loth (University of Virginia), Chao (Chris) Qin (Washington State University), Michael Selig (University of Illinois Urbana-Champaign), Nick Johnson (Sandia National Laboratories)

Flow Control with Synthetic Jets on a Wind Turbine Airfoil

Tuesday, 13 June 10:10 - 10:30 (UTC-7) | Start:</strong

Andrea Matiz-Chicacausa, Sebastian Molano, Omar D Lopez (Universidad de los Andes)

13:00 | Technical Lecture

FT-05 | In Person - Harbor C

PDL-07 | In Person - Hillcrest C

13:00 | Technical Paper Session

ATS-07 | In Person - Harbor D

Distributed Decision Contextualization via Machine Learning based Reverse Parametrization

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong

Stanley Dillon Hicks, Aditya N Das, Husni R Idris (NASA Ames Research Center)

(continued) ATS-07 | In Person - Harbor D

Quantitative Assessment of Grid Requirements for Electric Urban Air Mobility Operations
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Seejay R Patel, Nick Gunady, Austin Lu, Keshav Iyengar, Daniel A DeLaurentis (Purdue University)

Comprehensive Risk Assessment and Utilization for Contingency Management of Future AAM System
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Arinc Tutku Altun, Yan Xu, Gokhan Inalhan (Cranfield University), Michael W. Hardt (Boeing Research & Technology - Europe)

Model Predictive Guidance for Unmanned Traffic Management and 4D Operational Volumes
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Ruechuda Kallaka, Dimitrios Panagiotakopoulos, Yan Xu, Zsombor Öreg (Cranfield University Cranfield School of Aerospace Transport and Manufacturing)

AA-19 | In Person - Cortez Hill B

Turbulence distortion analysis for leading-edge noise prediction enhancement
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Andrea Piccolo, Riccardo Zamponi, Francesco Avallone, Daniele Ragni (Technische Universiteit Delft)

A Revisit of Amiet's Trailing-edge Noise Theory through Large-Eddy Simulations
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Dong Hun Kang, Seongkyu Lee (University of California Davis)

Wall-modelled LES of a high subsonic cavity flow at large Reynolds number
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Igor Maia, Romain Gojon, Michaël Bauerheim, Maxime Fiore (ISAE-SUPAERO), Thomas Node-Langlois (Airbus SAS)

Comparison of Linearized Navier-Stokes Formulations Applied to a Whistling Helmholtz Resonator
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Luigi Criscuolo, Hervé Denayer, Wim De Roeck, Wim Desmet (Katholieke Universiteit Leuven)

APA-22 | In Person - Hillcrest B

In-flight measurements on the Influence of Freestream Turbulence on a NLF Airfoil
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Ulrich Deck, Werner Würz (Universitat Stuttgart Fakultat 6 Luft- und Raumfahrttechnik und Geodasie)

Effect of dynamic wind direction changes on aerodynamics of a square inclined flat plate in ground effect
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Supun Pieris, Serhiy V Yarusevych, Sean D Peterson (University of Waterloo Faculty of Engineering)

Surface Pressure Measurements on an Axisymmetric Body with Fins Using Pressure Sensitive Paint
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Royce C Pokela, Jonas Gustavsson, Rajan Kumar (Florida State University Florida Center for Advanced Aero Propulsion)

The Development of Pressure Gloves for Unsteady Pressure Measurements on Varying Airfoil Geometry
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Bradley Vandervoort, Jonathan W Naughton (Univesity of Wyoming), Pourya Nikoueeyan (Resono Pressure Systems Inc.)

APA-23 | In Person - Hillcrest D

High-Fidelity Simulations of Propeller-Wing\\Interactions in High-Lift Conditions
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Andre FP Ribeiro (Dassault Systemes Deutschland GmbH), Ramon Duivenvoorden (Technische Universiteit Delft)

Wind Tunnel Measurements of Propeller-Wing Interactional Aerodynamics
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Shreyas Srivathsan, Juergen Rauleder (Georgia Institute of Technology)

Contribution of Swirl Recovery to the Induced Drag of a Propeller-Wing System – A Parametric Study
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Robert Nederlof, Robert Kooij, Leo L Veldhuis, Tomas Sinnige (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Experimental Analysis of the Integrated High-Lift Propuslor
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Abdelmalek Saadi Drissi, Shreyas Narsipur (Mississippi State University), Byron Ward (Wayfarer Aircraft Research & Development), Robert W Deters (Embry-Riddle Aeronautical University)

Performance Analysis of an Adaptive Duct for eVTOL Aircraft
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Tan Kin Jon Benjamin, Peng Cheng Wang (Singapore Institute of Technology), Henrik Hesse (University of Glasgow College of Science and Engineering)

TP-07 | In Person - Golden Hill A

Chemical Kinetics and Thermal Properties of Ablator Pyrolysis Products during Atmospheric Entry
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Mitchell Gosma (University of Illinois Urbana-Champaign), Caleb Harper, Lincoln Collins (Sandia National Laboratories), Kelly Stephani (University of Illinois Urbana-Champaign), Jeffrey Engerer (Sandia National Laboratories)

Parameterization of Thermal Accommodation Coefficients Individualized for Energy Modes
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Ethan H Huff, Savio James Poovathingal (University of Kentucky), Maninder S Grover, Ashley M Verhoff (Air Force Research Laboratory Aerospace Systems Directorate)

Development of a custom supervised learning network to model ablation of TPS materials.
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Vijay B Mohan Ramu, Qiang (Shawn) Cheng, Savio James Poovathingal (University of Kentucky)

Experimental Aerothermodynamics: Recent NASA Langley Capabilities and Contributions
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Michelle L Mason, Shann J Rufer (NASA Langley Research Center)

Parametric Comparison of the Park and MMT Chemical Kinetics Models with Multiple Freestream Speeds
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Ross S Chaudhry, Iain D Boyd (University of Colorado Boulder)

Numerical Evaluation of Entry System Trajectory Control via Development of Active Porosity Control of Transpiration Cooled Thermal Protection System Model
Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Caroline Anderson, Michael P Kinzel (University of Central Florida College of Engineering and Computer Science)

UAS-04 | In Person - Gaslamp B

Evaluating and Certifying Autonomy in Aviation
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Anuja Verma, David R Maroney (The MITRE Corporation)

Non-Communicative Negotiation-Free Angular Impulse-based Collision Avoidance
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Anahita Jain, John-Paul Clarke (The University of Texas at Austin Cockrell School of Engineering), Fanruiqi Zeng (Georgia Institute of Technology College of Engineering)

Autonomous UAV navigation in GPS denied environments using Lidar Point Clouds
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Michael Briggs, Lina Castano, Eric Morgan (Axient)

APA-21 | In Person - Torrey Hills B

Boundary-Layer Stability Analysis of a Swept Wing accounting for Fuselage and Tip Effects in Transonic Flight
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Koen J. Groot (Texas A&M University), James G Coder (The Pennsylvania State University), Guy Antony Jameson (Texas A&M University)

Flight Performance Modeling of the Boundary Layer Transition 1B (BOLT-1B) Experiment
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Prasad Kutty, Cameron Butler, Bradley M Wheaton (Johns Hopkins University Applied Physics Laboratory)

Effect of Transpiration Cooling on High-Speed Boundary Layer Stability
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Bijaylakshmi Saikia, Christoph Brehm (University of Maryland at College Park)

Low-Temperature Ablation Effects on Transition for 13-degree Straight Cone
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Sean D Dungan, Joel A McQuaid (University of Maryland at College Park), Aleksander Zibitsker, Alexandre Martin (University of Kentucky), Christoph Brehm (University of Maryland at College Park)

Numerical and Experimental Study of Laminar-Turbulent Transition on a Laminar Airfoil at Low Reynolds Number
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Matija Avirovic, Carlo Brunelli, Benoit G Marinus (Ecole Royale Militaire), Joris Degroote (Universiteit Gent), Jeroen Van Beeck (Von Karman Institute For Fluid Dynamics)

TP-08 | In Person - Golden Hill B

A 1-D Unsteady Lagrangian Model for Expansion Tube Test Flow Reconstruction
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Joseph Steer, Justin Clarke, Matthew McGilvray, Luca Di Mare (University of Oxford)

(continued) TP-08 | In Person - Golden Hill B

Modeling of Unsteady 1D Shocks Using the DSMC Approach to Estimate Emission Spectra

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong

Shubham Thirani, Irmak Taylan Karpuzcu, Deborah A Levin (University of Illinois Urbana-Champaign)

First principle simulation of CUBRC double cone experiments

Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong

Maninder S Grover, Paolo Valentini, Nicholas J Bisek, Ashley M Verhoff (Air Force Research Laboratory Aerospace Systems Directorate)

Nonequilibrium Effects on Aero-Optics in Hypersonic Flows

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong

Kyle M. Hanquist, Ozgur Tumuklu, Martin Liza (The University of Arizona)

CFD-12 | In Person - Solana Beach A

Assessment of Numerical Methods for Ship Airwake Simulations with Unsteady Atmospheric Boundary-Layer Effects

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong

Desirae Major, Sven Schmitz (The Pennsylvania State University), Jeremy D Shipman, Jonghoon Bin (Combustion Research and Flow Technology Inc), Susan Polsky (Naval Air Systems Command)

Modeling of Spray-Induced Wall Stress on a Hot Surface Ignition Device

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong

Sayop Kim, Je Ir Ryu (New York University - Abu Dhabi Campus Engineering Division)

High-Fidelity Simulations of Human-Scale Mars Lander Descent Trajectories

Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong

Jan-Renee Carlson, Soumyo Dutta, zachary ernst, Kevin Jacobson, William T Jones, Ashley M Korzun, Rafael A Lugo, Gabriel Nastac, Eric J Nielsen, aaron walden, Li Wang, anthony williams (NASA Langley Research Center), patrick moran (NASA Ames Research Center), hayden dean, alexandra hickey, Bradford E Robertson (Georgia Institute of Technology), justin luitjens, marc nienhaus, dragos tatulea, rajko yasui-schoeffel (NVIDIA Corp), Boris Diskin (National Institute of Aerospace), mohammad zubair (Old Dominion University)

Exploring the Accuracy of RANS Simulations for Mars Entry Vehicles

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong

Clark Pederson, Mark Schoenenberger, William L Kleb, Kelly Murphy (NASA Langley Research Center)

AA-20 | In Person - Cortez Hill C

Development of URANS and Fast Multipole Boundary Element Method Workflow for Installed Propeller Noise

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong

Stanislav Proskurov, Roland Ewert, Jürgen Dierke, Jan Delfs, Arne W Stuermer, Reginald Chellam (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Direct Noise Predictions of Several Airfoil Configurations using an Immersed Boundary Wall-Modeled Large-Eddy Simulation Approach

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong

Sparsh Ganju, Christoph Brehm (University of Maryland at College Park)

Numerical Simulation of Turbulence Interaction of a NACA0012 Airfoil at Different Angles of Attack

Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong

Leone Trascinelli, Luke Bowen (University of Bristol), Andrea Piccolo, Francesco Avallone, Riccardo Zamponi, Daniele Ragni (Technische Universiteit Delft), Bin Zang, Beckett Yx Zhou (University of Bristol)

Computational Aeroacoustic Predictions of the 30P30N High-Lift Airfoil

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong

Dominic Guillaume Geneau, Marinus K. Okoronkwo, Philippe Lavoie (University of Toronto), Oksana Stalnov (Technion Israel Institute of Technology), Stephane Moreau (Universite de Sherbrooke)

Broadband Noise of the Transonic RAE 2822 Airfoil

Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong

Antonio Alguacil, Lorenzo Becherucci (Universite de Sherbrooke), Marlène Sanjosé (Ecole de technologie superieure), Stéphane Moreau (Universite de Sherbrooke)

ACD-08 | In Person - Balboa A

Aerospace Engineering and the Entrepreneurial Mindset: Educating Students to Create Value for Clients and Communities Through Curiosity and Connections

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong

Julia M Williams (Rose Hulman Institute of Technology), Timothy T Takahashi (Arizona State University Ira A Fulton Schools of Engineering)

(continued) ACD-08 | In Person - Balboa A

Integration of EML Curriculum Changes - From First Year to Capstone
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Krista M Kecskemety, Meagan E Ita, Bob B Rhoads (The Ohio State University)

Adapting the Aerospace Engineering Curriculum to Cultivate the Whole Engineer
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Claudio DiLeo, Kelly Griendling, Kali Morgan, Mayuresh Patil, Jerry M Seitzman (Georgia Institute of Technology)

Introducing the "Entrepreneurial Mindset" into Arizona State University's Aerospace Engineering Capstone Design
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Timothy T Takahashi (Arizona State University Ira A Fulton Schools of Engineering), Gary Lichtenstein (Quality Evaluation Designs)

Experiences in Aircraft Design Projects in a year-long Senior Design/Capstone Project in Aerospace Engineering
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Srikanth Gururajan, Raymond P LeBeau, Sanjay Jayaram (Saint Louis University)

AA-21 | In Person - Torrey Hills A

Performance Analysis of Acoustic Liner with Fine-Perforated-Film by Numerical Simulation Using Impulse Response Method
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Shunji Enomoto, Hideshi OINUMA, Kenichiro NAGAI, Junichi OKI, Gai KUBO, Tatsuya Ishii (Uchu Koku Kenkyu Kaihatsu Kiko Honsha Chofu Kuko Uchu Center), Yo Murata (Tokyo Daigaku Daigakuin Kogakukei Kenkyuka Kogakubu)

Comparisons of Impedance Prediction Models for Perforate-over-Honeycomb Liners
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Michael G Jones, Douglas M Nark (NASA Langley Research Center Structural Acoustics Branch)

Preliminary Design of a Distributed Facesheet Acoustic Liner for Broadband Acoustic Attenuation
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Martha C Brown, Matthew B Galles, Douglas M Nark, Michael G Jones (NASA Langley Research Center)

Design Optimization of Variable Depth Liners with Grazing Flow for Ducted Proprotor Applications
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Matthew B Galles, Michael G Jones, Douglas M Nark (NASA Langley Research Center Structural Acoustics Branch)

Modeling of a 3D Plate Resonator Liner and Comparison to Numerical and Experimental Investigations
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Vincent Radmann, Fleming Kohlenberg, Ennes Sarradj (Technische Universitat Berlin)

Effects of Layer Spacing for a Multilayered Facesheet Acoustic Liner
Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Chelsea Dodge, Brian M Howerton, Michael G Jones (NASA Langley Research Center Structural Acoustics Branch)

ATM-02 | In Person - Balboa C

A Pilot-in-the-Loop Evaluation of ACAS Xr
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Casey L Smith, Robert C Rorie, Meghan Chandarana, Terence L. Tyson (NASA), Vivian Tran (California State University Long Beach)

Adapting the GEARS conflict resolution algorithm to meet real-world requirements
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Richard Irvine, Claude Barret (EUROCONTROL Innovation Hub)

Visual Approach and Pilot-Applied Visual Separation: Measurement of Use and Impact
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Daniel W Howell, Lynn Tran, Jennifer King (Regulus Group LLC)

Implementation of a Kinetic Trajectory Model for an Operational Air Traffic Control System
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Sergio Torres, Eric R Griffin (Leidos Inc)

ACD-09 | In Person - Balboa B

Sizing and Optimization of an Urban Air Mobility Aircraft Using Parametric Aero-Propulsive Model
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Bikash Kunwar , Rajan Bhandari, Imon Chakraborty (Auburn University)

Physics-Based Lifting Surface Weight Estimation for Conceptual Design of Vertical Takeoff and Landing Aircraft
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Nogib Anwar Zafi, Imon Chakraborty (Auburn University)

(continued) ACD-09 | In Person - Balboa B

Integrated Vehicle and Subsystems Sizing for Electrified Urban Air Mobility Aircraft
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Stefanus H Putra, Imon Chakraborty (Auburn University)

Object-Oriented Multi Fidelity Aircraft Design Tool for Fixed Wing eVTOL UAVs
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Thomas Seren, Mirko Hornung (Technische Universitat Munchen)

Electric Aircraft Performance Analysis Utilizing Simplified Aproaches for Airfoil and Propulsion Chain Design
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Stephan Diecke (Universitat der Bundeswehr Munchen)

FD-12 | In Person - Mission Beach A

Evolution of a Synthetic Jet with Triangular Orifice Geometry at Varying Skew Angles in a Laminar Boundary Layer
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Tufan Kumar Guha (Indian Institute of Technology Kanpur), Michael Amitay (Rensselaer Polytechnic Institute)

Impact of Asymmetric Orifice Lip Radius on Pitched Synthetic Jets in Quiescent Conditions
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Matthew Knickerbocker, Joseph C Straccia, John A Farnsworth (University of Colorado Boulder)

AA-22 | In Person - Cortez Hill A

Numerical investigation of aerodynamics and aeroacoustics of Darrieus wind turbines
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Kartik Venkatraman (Von Karman Institute For Fluid Dynamics), Stephane Moreau (Universite de Sherbrooke Faculte de Genie), Julien Christophe, Christophe F Schram (Von Karman Institute For Fluid Dynamics)

Effect of number of blades on aerodynamic and aeroacoustic characteristics of low Reynolds number vertical axis wind turbines
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Shubham Shubham, Anton Ianakiev, Nigel Wright (Nottingham Trent University)

Wind turbine noise synthesis from numerical simulations
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Andrea C Bresciani, Julien Maillard (Centre scientifique et technique du batiment Grenoble), Sophie Le Bras (Siemens Industry Software SAS), Leandro D de Santana (German-Dutch Wind Tunnels DNW)

Design of trailing-edge serrations along the radius of a wind-turbine blade for broadband noise reduction
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Lourenco Tercio Lima Pereira, Francesco Avallone, Daniele Ragni (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek), Steven Buck, Stefan Oerlemans (Siemens Gamesa Renewable Energy AS)

Far-field propagation of wind turbine noise using the Harmonoise model
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Lennart Bouma (Universiteit Twente), Maxime Malbois (Institut National des Sciences Appliquees de Rouen), Andrea C Bresciani, Julien Maillard (Centre scientifique et technique du batiment Grenoble), Stéphane Moreau (Universite de Sherbrooke), Leandro D. de Santana (German-Dutch Wind Tunnels DNW)

Darrieus wind turbine noise propagation in urban environment
Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Kartik Venkatraman (Universite de Sherbrooke Faculte de Genie), Andrea C Bresciani, Julien Maillard (Centre Scientifique et Technique du Batiment), Stéphane Moreau (Universite de Sherbrooke Faculte de Genie), Julien Christophe, Christophe F Schram (Von Karman Institute For Fluid Dynamics)

MVCE-02 | In Person - Pier

Optimizing Triangular and Quadrilateral Mesh Connectivity through Reinforcement Learning
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Arjun Narayanan, Lewis Pan, Per-Olof Persson (University of California Berkeley)

Aerodynamic Simulations for Complex Geometries Using Automatically Generated Structured Overset Meshes
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Andrew M Chuen, Seyedeh Sheida Hosseini, James C Jensen, William M Chan (NASA Ames Research Center)

Warped-Element Refinement Method for Fluid Simulations with Moving or Deforming Domains
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Luc Roger Lipcius, Devina Pribadi Sanjaya (The University of Tennessee Knoxville Tickle College of Engineering)

(continued) MVCE-02 | In Person - Pier

High-Resolution Unstructured Mesh Refinement Framework for Aircraft Icing Predictions

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Robert E Harris (CFD Research Corporation)

Requirements for Robust and Fast Parallelized Finite-Element Based Mesh Morphing

Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Mohammed S Kamel, Rongguang Jia (Ansys Inc)

CFD-11 | In Person - Ocean Beach

Nonlinear Nonmodal Analysis of Hypersonic Flow over Blunt Cones

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Anton Scholten (NC State University), Pedro Paredes (National Institute of Aerospace), Meelan M Choudhari, Fei Li, Mark Carpenter (NASA Langley Research Center)

High-Order Upwind Multi-Layer Compact Scheme (MLC) with Shock-Fitting Method for Two-Dimensional Supersonic Flows

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Yung-Tien Lin, Xiaolin Zhong (University of California Los Angeles)

Modal Representation of Isotropic Decaying Turbulence, Taylor-Green Vortex, and Channel Flows in Discontinuous Spectral Element Method

Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Mohammadmahdi Ranjbar, Daniel A. Belknap Fernandez, Ali Mostafavi, Farzad Mashayek (University of Arizona Department of Aerospace and Mechanical Engineering), Jonathan Komperda (University of Illinois Chicago College of Engineering)

High-order unstructured finite difference methods for flow problems

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Yulong Pan, Per-Olof Persson (University of California Berkeley)

Conservative and Robust Compact Finite Difference Approach for Simulations of Dense Gas Flows

Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Hang Song, Aditya S Ghate, Steven Dai, Anjini Chandra, Sanjiva K Lele (Stanford University)

Performance and Efficiency of HPC by High Accuracy Compact Scheme: Direct Numerical Simulation of Rayleigh-Taylor Instability

Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Prasannabalaji Sundaram (Indian Institute of Technology Kanpur), Julio C Mendez (Corrdesa), Aditi Sengupta, Tapan K Sengupta (Indian Institute of Technology)

AA-23 | In Person - Harbor B

The guided-jet mode in compressible jets

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Daniel M Edgington-Mitchell, Petrônio A. S. Nogueira (Monash University)

Study of the cut-on frequency of the guided jet mode in round twin jets

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Michael Stavropoulos (Monash University), Eduardo Martini (CNRS-Université de Poitiers-ENSMA), Daniel M Edgington-Mitchell (Monash University), Peter Jordan (CNRS-Université de Poitiers-ENSMA), Petrônio A. S. Nogueira (Monash University)

Pressure fluctuation spectral peaks due to 'guided waves' in the upstream direction of a jet

Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Khairul Q Zaman, Amy F Fagan, Puja Upadhyay (NASA John H Glenn Research Center)

Quasi-self-similarity of resolvent modes of a turbulent jet

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Benshuai Lyu (Peking University)

Bispectral mode decomposition of axisymmetrically and non-axisymmetrically forced turbulent jets

Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Akhil Nekkanti, Oliver Thomas Schmidt (University of California San Diego), Igor Maia, Peter Jordan (Institut Pprime-CNRS-Universit\'e de Poitiers-ENSMA), Liam Heidt, Tim Colonius (California Institute of Technology)

Cyclostationary analysis of forced turbulent jets

Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Liam Heidt, Tim Colonius (California Institute of Technology), Akhil Nekkanti, Oliver Thomas Schmidt (University of California San Diego), Igor Maia, Peter Jordan (Institut Pprime-CNRS)

MDO-06 | In Person - Old Town B

Reduced Order Model for Steady Aerodynamics Applications Based on Navier-Stokes Residual Vector Minimization
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Cedric Fallet, Andrea Garbo, Anna Kiener, Philipp Bekemeyer (Deutsches Zentrum fur Luft- und Raumfahrt DLR Standort Braunschweig)

Optimal Experimental Design-based Reduced Order Modeling for Learning Optimal Aerodynamic Designs
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Lydia Wang (Johns Hopkins University), Joaquim R. R. A. Martins (University of Michigan), Xiaosong Du (Missouri University of Science and Technology)

Model reduction for hypersonic flows in thermochemical non-equilibrium.
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Susmit S Joshi, Seongim Choi (Virginia Polytechnic Institute and State University)

Learning Trajectory-Following Flight of an Avian-Inspired Flapping Mechanism using Invertible Neural Networks
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Mikel Aghachi, Manaswin Oddiraju (University at Buffalo), Haidar Alsalih (Clemson University), Souma Chowdhury (University at Buffalo)

Batch Bayesian Optimization for Hypersonic Vehicle Design and Analysis
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Jacob T Needels, Juan J Alonso (Stanford University)

MST-04 | In Person - La Jolla A

Modeling and Simulation of Real-Time Rotorcraft Brownout for a Flight Simulator
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Christopher Emory Cordell, Oliver Pierson, Douglas Hope, John Stewart, Josh Gaston, Eric Grigorian (Georgia Tech Research Institute)

Mechanical Real-Time Landing Skid Model for Flight Dynamic Simulation of Ground Forces during Take-Off and Landing
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Simon P Scherer, Si Zhe Jeremy Ng, Felix Bos, Florian Holzapfel (Technische Universitat Munchen)

An Aerodynamic Reinvestigation of the Hydroplaning Phenomenon
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
T. Wan (Tamkang University)

Secondary Injection for Thrust Vectoring of Hybrid Rockets
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Noreen Abdelwahab, Craig T Johansen (University of Calgary Schulich School of Engineering)

MDO-07 | In Person - Old Town A

Optimal Design of eVTOLs for Urban Mobility using Analytical Target Cascading (ATC)
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Prajwal Chinthoju (University of Illinois Urbana-Champaign), Yong Hoon Lee (The University of Memphis), Ghanendra Kumar Das, Kai A. James (Georgia Institute of Technology College of Engineering), James T Allison (University of Illinois Urbana-Champaign)

Reduced-Order Modeling of Isogeometric Shell Structures For Large-Scale Design Optimization
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Sebastiaan PC van Schie, John T Hwang, David Kamensky (University of California San Diego)

Adjoint-based Jacobian accumulation for computational graphs with implicit functions
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Mark Sperry, John T Hwang (University of California San Diego)

Machine learning for airfoil shape parameterization and aerodynamic modeling
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Marius L Ruh (University of California San Diego), Xiangbei Liu (Dartmouth College), Rose Yu, John T Hwang (University of California San Diego)

GT-04 | In Person - Promenade A

Imaging Boundary Layer Separation in a Mach 6 Quiet Tunnel Using High-Speed Self-Aligned Focusing Schlieren
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Emma Nicotra, Sally PM Bane, Joseph S Jewell (Purdue University)

Evaluation of Methods for Recovering Unsteady Forces from Free-Flight Optical Measurements in Hypersonic Facilities
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Wenbo Zhu, Stuart J Laurence (University of Maryland at College Park)

Innovation for Hypersonic Ground Testing Window by Thermal Conditioning Coupled with Matched Index of Refraction Technique
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Joseph R Herdy (CFD Research Corporation), Gary Kamerman (FastMetrix Industries, LLC)

(continued) GT-04 | In Person - Promenade A

Aerodynamic testing of a hypersonic test bed for high-speed airbreathing propulsion systems
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Bora O Cakir, Sebastian Paris, Guillaume Grossir, Bayindir H Saracoglu (Von Karman Institute For Fluid Dynamics)

Free-Flight Optical Tracking using Artificial Image Generation
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Ryan S de Silva, Thomas J Whalen, Stuart J Laurence (University of Maryland at College Park)

Hypersonic Aerodynamics from Mach 7 Free-Flight Tests: Initial Experiments and Simulations with Rotating and Non-Rotating Cubes
Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Andrew Lock, Flynn Hack, Gerard Armstrong, Ingo Jahn, Fabian Zander, David Buttsworth (University of Southern Queensland)

APA-20 | In Person - Hillcrest A

Twist Optimization of a Helicopter Rotor Blade Using Support Vector Regression
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Emin Burak Ozyilmaz, Mustafa Kaya, Munir Ali Elfarra (Ankara Yildirim Beyazit Universitesi)

Computations of Multicopter Aerodynamics in Vertical Flight with Overset Grids in OpenFOAM
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Young Min Park, Sol Keun Jee (Gwangju Institute of Science and Technology)

Analysis of Mid-Fidelity Methods for Propeller Modeling - Application to ONERA's HAD-1 Light Propeller
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Hugues Pantel, Fabrice Falissard (ONERA Mecanique des fluides et energetique), Guillaume Dufour (Universite Federale Toulouse Midi-Pyrenees)

Multi-Fidelity Computational Analysis of a Quiet Single-Main Rotor Helicopter for Air Taxi Operations
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Patricia Ventura Diaz, David Garcia Perez, Steven Yoon (NASA Ames Research Center)

Comparison of Aircraft Loads Using URANS and Actuator Disk Modelling of Propellers at High Incidence
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Christopher Wales, Dorian Jones, Ann Gaitonde (University of Bristol), Peter Risley-Settle, Andrew Peace (Aircraft Research Association Ltd)

High-fidelity Analysis of Lift+Cruise VTOL Urban Air Mobility Concept Aircraft
Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Yi Liu (National Institute of Aerospace), Cameron T Druyor, Li Wang (NASA Langley Research Center)

AA-24 | In Person - Harbor A

Development of a Deterministic Disturbance Generator for Ingestion into an Open Rotor in a Wall Boundary Layer
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Jarrod T Banks, Szu-Fu Huang, Shaheen Thimmaiah Palanganda, Daji Chen, William N Alexander, William J Devenport (Virginia Polytechnic Institute and State University)

Prediction of Ground Noise Footprint using Reduced Order Model
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Kwon Soonmoung, Yoonpyo Hong, Kwanjung Yee (Seoul National University)

Characterisation and prediction of propeller tip vortex interaction broadband noise
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Amin Karimian, Chaitanya Paruchuri, Phillip Joseph (University of Southampton Institute of Sound and Vibration Research)

Interactions of Propellers in Edgewise Flight with Turbulence
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Liam P Hanson, Luke Bowen, Bin Zang, Mahdi Azarpeyvand (University of Bristol)

Effects of Rotor Blade Wavy Leading Edge Wavelength on Turbulence Ingestion Sound
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Jason M Anderson, Christopher Hickling, Field Manar (Naval Surface Warfare Center Carderock Division)

Computational Analysis of Sound from a Rotor Ingesting a Non-Axisymmetric Turbulent Boundary Layer
Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong
Di Zhou (California Institute of Technology), Meng Wang (University of Notre Dame)

FD-13 | In Person - Mission Beach B

Tripping effects on the unsteadiness of shock-boundary layer interactions in a Mach 2.0 supersonic turbine cascade

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong

Gabriel Y R Hamada, Hugo Lui, William Wolf (University of Campinas), Tulio Ricciardi (University of Illinois Urbana-Champaign), Carlos A. Junqueira-Junior (Ecole Nationale Superieure d'Arts et Metiers)

Analysis of Streamwise Vortex Streaks in Shockwave-Boundary Layer Interactions on a Hollow Cylinder-Flare at M_∞= 4

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong

Shelby Y Ledbetter, Lauren E Lester, Autumn N Garner, Haley R Goldston, Cary Dean Smith, Mark Gragston, Phillip A Kreth, John D Schmisseur (The University of Tennessee Space Institute)

Analysis of linear disturbances in a supersonic turbine cascade using the mean flow perturbation

Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong

Hugo Lui (Universidade Estadual de Campinas), Tulio Ricciardi (University of Illinois Urbana-Champaign), William Wolf (Universidade Estadual de Campinas), Datta V Gaitonde (The Ohio State University)

Boundary Layer Separation and Transition on Mach 5 Hollow Cylinder-Flare

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong

James A S Threadgill, Stuart A. Craig, Jesse C Little (University of Arizona)

Transitional Fin-Induced Shock Boundary Layer Interactions on a Hollow Cylinder at Mach 5

Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong

James A S Threadgill, Stuart A. Craig, Jesse C Little (University of Arizona)

Unsteady Characteristics of Swept Impinging Oblique SBLIs

Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong

Sathyan Padmanabhan, James A S Threadgill, Jesse C Little (The University of Arizona Graduate College)

HSABP-05 | In Person - Gaslamp D

PMMA Solid Fuel Flamelet Model for High Speed Flows

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong

Henry Pace, Luca Massa, Charles R Arnold (Virginia Polytechnic Institute and State University)

Laser absorption measurements of HTPB hydrocarbon intermediates inside a shock tube at solid-fired ramjet conditions

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong

Juan Cruz Pellegrini, Jacklyn Higgs, Ramees Rahman, Subith Vasu (University of Central Florida)

FD-44 | In Person - Promenade B

FD-14 | In Person - Mission Beach C

Wall-Cooling Effect on Boundary-Layer Instability Growth and Transition in the AFRL Mach-6 Ludwieg Tube

Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong

Jordan T Clingenpeel (University of Dayton), Elizabeth Katherine Benitez, Matthew P Borg (Air Force Research Laboratory Aerospace Systems Directorate), Jonathan L Hill (Air Force Institute of Technology), Carson L Running (University of Dayton)

Transition Onset Downstream of an Axisymmetric Separation Bubble under Mach-6 Quiet Flow

Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong

Elizabeth Katherine Benitez, Matthew P Borg (Air Force Research Laboratory Aerospace Systems Directorate), Jonathan L Hill (Air Force Institute of Technology), Zachary A McDaniel, Joseph S Jewell (Purdue University)

Study of Bluntness-Induced Elongated Structures using Variable Beam Separation FLDI

Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong

Alexandre R Berger, Matthew P Borg (Air Force Research Laboratory)

Hypersonic Boundary Layer Transition Measurements using Wall Shear Sensors

Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong

Nicholas J Molinaro, Daniel Simmons, Ryan J Meritt (Ahmic Aerospace), Joel White, Nathan R Tichenor (Texas A&M University System)

Stability Analysis of Hypervelocity Ballistic-Range Data

Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong

Ahsan Hameed, James H Chen, Nick J Parziale (Stevens Institute of Technology), Sean D Dungan, Christoph Brehm (University of Maryland at College Park)

Effect of Porosity on the Ability of Silicon-Carbide Foams to Attenuate Second-Mode Boundary-Layer Instability

Tuesday, 13 June 14:40 - 15:00 (UTC-7) | Start:</strong

Benjamin L Bemis (University of Dayton), J. Luke Hill (Air Force Institute of Technology), Matthew P Borg (Air Force Research Laboratory), Joel J Redmond (Purdue University), Karl Jantze, Carlo Scalo (Hysonic Technologies LLC), Carson L Running (University of Dayton)

FD-15 | In Person - Solana Beach B

On the Unsteadiness of a Hypersonic Flow and Pulsed Side Jet Interaction
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Irmak Taylan Karpuzcu, Deborah A Levin (University of Illinois Urbana-Champaign)

Effect of geometric and thermal parameters on sensitivity and stability of ogive-cylinder forebody flows
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Kunal Kanawade, Unnikrishnan Sasidharan (Florida State University), Datta V Gaitonde (The Ohio State University)

Noise amplification in hypersonic blunt body flows
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Anubhav Dwivedi, Mihailo R. Jovanovic (University of Southern California)

SPSN-03/APA-24 | In Person - Gaslamp C

A reduced-order model for supersonic transport take-off noise scaling with cruise Mach number
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Laurens Voet, Raymond L. Speth, Jayant S. Sabnis, Choon S. Tan, Steven Barrett (Massachusetts Institute of Technology)

Methods for System-Level Multidisciplinary Uncertainty Analysis of Flight Vehicles
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Christopher A Eggert, Benjamin D Phillips, Zachary D Windous (NASA Langley Research Center), Joanna N Schmidt (Analytical Mechanics Associates)

Development of an aerodynamic surrogate model for preliminary supersonic aircraft design based on DLR TAU simulations
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Samuel Schnell (German Aerospace Center DLR, Braunschweig, Institute of Aerodynamics and Flow Technology)

Shock Standoff Distance in Viscous Hypersonic Flows around a Blunt Body
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Himanshu Khatri, Liwei Zhang (The University of Texas at Arlington College of Engineering)

Recent Enhancements to Modeling Sonic Boom Propagation using Augmented Burgers' Equation
Tuesday, 13 June 14:20 - 14:40 (UTC-7) | Start:</strong
Sriram K Rallabhandi (NASA Langley Research Center), Marian Nemec, Michael J Aftosmis (NASA Ames Research Center)

TES-01 | In Person - Bankers Hill

Methane Oxycombustion in Supercritical Carbon Dioxide in Engineering Geometries Simulated Using an Adaptive Mesh Method
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Marc Henry de Frahan, Bruce Perry, Olga Doronina, Shashank Yellapantula, Michael J Martin (National Renewable Energy Laboratory)

DGE-03/NDA-01 | In Person - Gaslamp A

Assessment of Techniques for Global Sensitivity Analyses in Conceptual Aircraft Design
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Marko Alder, Tawfiq Ahmed, Benjamin Fröhler (Deutsches Zentrum fur Luft- und Raumfahrt DLR Standort Hamburg), Anna Skopnik (Technische Universitat Chemnitz)

ASE-02 | In Person - Cove

Direct Effects of Lightning Strike on Flax Fiber-Reinforced Polymers for Helicopter Structures: A Numerical and Experimental Investigation
Tuesday, 13 June 13:00 - 13:20 (UTC-7) | Start:</strong
Lukas Gaugelhofer, Naresh Kumar Krishnamurthy, Jonas John, Ilkay Yavrucuk (Technische Universitat Munchen)

Estimating Errors of Wake Vortex Retrievals Using High Fidelity Lidar Simulations
Tuesday, 13 June 13:20 - 13:40 (UTC-7) | Start:</strong
Niklas Wartha, Anton Stephan, Frank N Holzäpfel, Grigory Rothsteyn (Deutsches Zentrum fur Luft- und Raumfahrt DLR Institut fur Physik der Atmosphare)

Civil Aviation Wake Turbulence Infrasound Sensing Flight Research
Tuesday, 13 June 13:40 - 14:00 (UTC-7) | Start:</strong
Anthony P Brown (NRC Canada)

Further flight data on jet transport cruising flight wake vortex characteristics.
Tuesday, 13 June 14:00 - 14:20 (UTC-7) | Start:</strong
Anthony P Brown (NRC Canada)

15:30 | Technical Paper Session

Wednesday, 14 June

09:30 | Technical Paper Session

ATS-09 | In Person - Harbor D

Towards an Annotated All-Weather Dataset of Flight Logs for Small Uncrewed Aerial System
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Md Nafee Al Islam, Muhammed Tawfiq Chowdhury, Pedro Alarcon, Jane Cleland-Huang (University of Notre Dame College of Engineering), Lilly Spirkovska (NASA Ames Research Center)

Comparison of Surrogate Modeling Techniques for Life Cycle Models of Advanced Air Mobility
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Ahmad Ali Pohya, Gerko Wende (Deutsches Zentrum fur Luft- und Raumfahrt eV), Matteo Corbetta, Chetan Shrikant Kulkarni (NASA Ames Research Center)

Evaluating the Impact of Onboard and Offboard Computing on UAS Traffic Management
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Drake Essick, Luiz Gonzalez Bautista, Junfei Xie (San Diego State University), Yan Wan (The University of Texas at Arlington), Jun Chen (San Diego State University)

Space Efficient Airspace Geofence Volume Sizing
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Christopher Donald Barkey, Joseph T Kim (University of Michigan), Ella M Atkins (Virginia Polytechnic Institute and State University)

Vibration Anomaly Indicator in UAVs in presence of Wind.
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Portia Banerjee ([KBR] NASA Ames Research Center), Elizabeth Hale, George E. Gorospe (NASA Ames Research Center)

Hybrid Modeling of Unmanned Aerial Vehicle Electric Powertrain for Fault Detection and Diagnostics
Wednesday, 14 June 11:10 - 11:30 (UTC-7) | Start:</strong
Matteo Corbetta, Chetan Shrikant Kulkarni, Stefan Schuet, Katelyn J Jarvis (NASA Ames Research Center)

DE-04 | In Person - Gaslamp A

New conceptual design of connecting metallic flanges for space composite grid structures
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Domenico Cristillo, Francesco Di Caprio, Giovanni Totaro (Centro Italiano Ricerche Aerospaziali)

A Pathfinding Experience to Serial Production of an Additively Manufactured Structural Part
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Paul Toivonen (Spirit AeroSystems Inc)

Fusion Insights from Ultrasonic and Thermographic Inspections for Impact Damage Analysis
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Muhammet Ebubekir Torbali, Muflih Alhammad, Argyrios Zolotas, Nicolas Peter Avdelidis (Cranfield University), Clemente Ibarra-Castanedo, Xavier Maldague (Universite Laval)

AA-27 | In Person - Cortez Hill C

Development of an Economical 2-DOF Continuous-Scan Acoustic Beamforming Array
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Kevin F Lieb, Sarah Kinney (Texas A&M University), Parthiv N Shah, Dan Hensley, Laura Schweizer (ATA Engineering, Inc.), Darren J Hartl (Texas A&M University)

Generalized microphone array geometries for source separation in engine intra-stages
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Ram Kumar Venkateswaran, Phillip Joseph, Chaitanya Choudary Paruchuri (University of Southampton Institute of Sound and Vibration Research)

Development of In-Flow Phased Microphone Array Windscreen Corrections for Small and Large Arrays
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Nathan J Burnside, William C Horne (NASA Ames Research Center)

Microphone Array Based Trajectory Reconstruction for Small UAV Fly-by Measurements
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Gert Herold, Ennes Sarradj (Technische Universitat Berlin)

Enhancement of array processing techniques for CAA-based acoustic imaging
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Simon Bouley, Joannès Chambon, Olivier Minck (MicrodB)

(continued) AA-27 | In Person - Cortez Hill C

Super-resolution Acoustic Imaging for Rotating Sources.
Wednesday, 14 June 11:10 - 11:30 (UTC-7) | Start:</strong
Jingjing Zhu (Peking University), Wangqiao Chen (The Hong Kong University of Science and Technology), Xun Huang (Peking University)

APA-29 | In Person - Hillcrest B

Analysis of Bomb Projectile Trajectory Released from Fighter Aircraft Weapons Bay
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
HSIEN-HAO TENG, Zhong-Xin Yu (National Chung-Shan Institute of Science and Technology)

Control of Aerodynamic Loads using Unsteady Active Aerodynamic Bleed
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Michael DeSalvo, Ari Glezer (Georgia Institute of Technology), Anish Sydney, Kevin Kimmel, Judah H Milgram (Naval Surface Warfare Center Carderock Division)

TP-10 | In Person - Golden Hill A

Estimating effective radiative properties of elastomeric silicone through surrogate modeling
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Ayan Banerjee, Savio James Poovathingal (University of Kentucky College of Engineering)

Dragonfly backshell radiation measurements in the EAST facility
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Augustin Claude Tibère-Inglesse (Oak Ridge Associated Universities), Christopher O Johnston (NASA Langley Research Center), Aaron Michael Brandis (NASA Ames Research Center), Brett A Cruden (AMA at NASA Ames Research Center)

Shock Tube Study of CO Dissociation at Entry Conditions via MHz Rate Laser Absorption Spectroscopy
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Nicolas Minesi, Lok Him Lai, Miles Olivier Richmond, Christopher Jelloian, Raymond Mitchell Spearrin (University of California Los Angeles)

On Characterization of Flow Disturbances in Arc-Jet Testing
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Tahir Gokcen (AMA Inc. at NASA Ames Research Center)

Catalytic Surface Recombination Mechanisms in Carbon-based TPS Materials
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Kubra Asena Gelisli, Chaithanya Kondur, Kelly Stephani (University of Illinois Urbana-Champaign)

MDO-09 | In Person - Old Town B

Assessment of Closed Loop Dynamics in the Multidisciplinary Design and Optimization of Small UAVs
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Luiz F. T. Fernandez (ONERA Traitement de l'information et systemes), Murat Bronz (Ecole Nationale de l'Aviation Civile), Thierry Lefebvre, Nathalie Bartoli (ONERA Traitement de l'information et systemes)

An Integrated Vehicle, Payload, And Trajectory Optimization Framework for a Stratospheric Solar Aircraft
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Annick Dewald, Peter Sharpe, R John Hansman, Brent Minchew (Massachusetts Institute of Technology)

Operational and Aircraft System Modeling Utilizing Model-Based Multidisciplinary Optimization Methods
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Alex Moodie, Julius M Vegh, Robert Scott, Ernest Keen, Luke Battey (US Army Combat Capabilities Development Command)

Effect of Typical Aircraft Design Requirements on the Structural Efficiency of Topology Optimization Inspired Designs
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Jeremy Tumpak, Matthew Leonard (Wright-Patterson Air Force Base)

Mixed-Fidelity Aero-Structural-Acoustic Optimization for Urban Air Mobility Vehicle Design
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Bernardo Pacini, Karthikeyan Duraisamy, Joaquim R. R. A. Martins (University of Michigan), Ping He (Iowa State University)

ASE-03 | In Person - Cove

A Methodology for Sizing Rotorcraft De-icing Systems Based on Ice Adhesion Strength
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Nick Tepylo (Carleton University Faculty of Engineering and Design), Marc Budinger (Institut Clement Ader), Valérie Pommier-Budinger (ISAE-SUPAERO)

On Ice Accretion around a Wavy Leading–edge Wing
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Andrea Da Ronch, gabriele immordino (University of Southampton)

(continued) ASE-03 | In Person - Cove

ICICLE 3D Modelling and Simulation of Mixed Phase Ice Crystal Icing In Three-Dimensions
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Liam Parker, Matthew McGilvray, David R.H Gillespie (University of Oxford)

Dynamics of the solar energetic particle population in geospace, including at LEO.
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Valeriy Tenishev (University of Michigan)

An Emission Analysis of Boeing 777 Operations during Covid-19
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Eric Schuster, Maarten Uijt De Haag (Technische Universitat Berlin Fakultat V Verkehrs- und Maschinensysteme)

A Stixel-Based Obstacle Avoidance System for Multi-Rover System
Wednesday, 14 June 11:10 - 11:30 (UTC-7) | Start:</strong
Narsimlu K (Universite du Luxembourg)

AA-28 | In Person - Cortez Hill B

Active Control of Trailing Edge Noise: Analysis of Prototype System Experimental Data
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Steven Buck (Siemens Gamesa Renewable Energy AS), Phillip Joseph (University of Southampton), Stefan Oerlemans (Siemens Gamesa Renewable Energy AS), Octavio Hernandez (Siemens Gamesa Renewable Energy SA)

Adapting a Trailing-Edge Noise Model to an Impedance Boundary Condition
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Alistair Hales, Lorna J Ayton (University of Cambridge)

An experimental investigation of turbulent-boundary-layer trailing-edge noise from an aerofoil equipped with a flexible trailing edge
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Qian Liu, Yu Liu (Southern University of Science and Technology)

Numerical Evaluation of Poro-Serrated Trailing-Edge Noise for Different Flow Conditions
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Sutharsan Satcunanathan, Matthias Meinke, Wolfgang Schroeder (Rheinisch-Westfalische Technische Hochschule Aachen)

Influence of the frozen turbulence assumption on the noise prediction models for trailing edge serrations
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Haopeng Tian, Benshuai Lyu (Peking University)

APA-28 | In Person - Torrey Hills B

Aeroelastic response of a compliant hypersonic vehicle model in Mach 5 flow measured using PSP and DIC
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Brianna L Blocher, Benjamin Diaz Villa, Aditya Panigrahi, Marc A Eitner, Jayant Sirohi, Noel T Clemens (The University of Texas at Austin)

Hypersonic Fluid-Thermal-Structural Interactions on a Compression Ramp with an Embedded Compliant Panel
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Antonio Giovanni Schoneich, Stuart J Laurence (University of Maryland at College Park), Fabian Dettenrieder, Daniel J Bodony (University of Illinois Urbana-Champaign), Gregory M Buck, Joshua M Weisberger, Brett F Bathel (NASA Langley Research Center)

Effect of Panel Compliance on Shockwave Boundary Layer Interaction at Mach 2
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Akriti Tripathi, Michael Sheehan, Jonas Gustavsson, Kourosh Shoele, Rajan Kumar (Florida State University)

Response of a Flexible Panel to Shock Boundary Layer Interactions
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Vilas J Shinde, Jack J McNamara, Datta V Gaitonde (The Ohio State University)

Parametric Analysis of Structural Response in the Presence of Shock Boundary Layer Interaction
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Rohit Deshmukh, Vilas J Shinde, Jack J McNamara (The Ohio State University)

CFD-15 | In Person - Solana Beach A

Dust Erosion Correlation for Hypersonic Cruise Vehicle Leading Edges
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Adam J Boland, Serhat Hosder (Missouri University of Science and Technology), Andrew Hinkle, Thomas K West (NASA Langley Research Center)

(continued) CFD-15 | In Person - Solana Beach A

Turbulent Flow Simulation on Cartesian Grids
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Alexander H Boschitsch, Pavel Danilov, Glen R Whitehouse (Continuum Dynamics Inc)

Effect of mutual interaction and patterned farms for savonius wind turbines under varying oblique arrangement
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Praveen Laws, Je Ir Ryu (New York University)

Effects of Various Geometric and Kinematic Parameters on the Swirl Number and Cyclonic Flow Evolution in a Bidirectional Vortex Chamber
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Gaurav Sharma, Joseph Majdalani (Auburn University)

Simulation of Engine Bleed Air Burst Duct Heat Transfer using Computational Fluid Dynamics with Test Correlation
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
See-Ho J Wong, Eddie Irani, jessica ferguson, William Magee, michael mccausland (Spirit AeroSystems Inc)

MST-06 | In Person - La Jolla A

Evaluation of Novel V/STOL Aircraft Control for Expected AAM Operations
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Michael Feary, John Kaneshige (NASA), Loran Haworth (San Jose State University), Thomas Lombaerts (KBR Wyle Services), Kimberlee H Shish (NASA), Nelson Iwai, John Archdeacon (ASRC Federal Data Solutions, LLC)

Command and Control Concepts for a Lift Plus Cruise Electrical Vertical Takeoff and Landing Vehicle
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
John Kaneshige, Thomas Lombaerts, Kimberlee H Shish, Michael Feary (NASA Ames Research Center)

An Investigation of Control Allocation Methods for the ADMIRE Simulation Model
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Nilsu Gulcan, Huseyin Burak Kurt, Atakan Karaman (Tusas-Turk Havacilik ve Uzay Sanayii AS), Murat Millidere (Cranfield University)

Using Uniform Trigonometrization Method for Aviation Based Optimal Control Problems
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Kshitij Mall, Sean M Nolan, Winston C Levin, Lauren Risany, Daniel A DeLaurentis (Purdue University)

Towards Development of a Dynamic Soaring Capable UAV using Reinforcement Learning
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Jacob R Adamski, Vladimir V Golubev, Snorri Gudmundsson (Embry-Riddle Aeronautical University), Fedor Kuznetsov (Moskovskij aviacionnyj institut nacional'nyj issledovatel'skij universitet)

EATS-01 | In Person - Gaslamp B

Operational Analysis for Hybrid Electric Aircraft Fleets: A feasibility study for the short- and medium-haul markets
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Yilin Deng, Alexander Kryuchkov, Paul Mokotoff, Max Z Li, Gokcin Cinar (University of Michigan)

Coupled Hybrid & Electric Aircraft Design and Strategic Airline Planning
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Maurice Hoogreef, Noa Zuijderwijk, Elise Scheers, Pieter-Jan Proesmans, Bruno F. Santos (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Advanced Turboprop Transport Aircraft Modeling for the Electrified Powertrain Flight Demonstration Project
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Dahlia Pham, Jeffrey Bowles, Carl Recine, Susie Go (NASA Ames Research Center)

Fleet Wide Impacts of the Electrified Powertrain Flight Demonstration Technology Portfolio
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Holger Pfaender, Thibault Mazeman, Ariel Shaver (Georgia Institute of Technology)

Simulator-based Mission Optimization for Conceptual Aircraft Design with Turboelectric Propulsion
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Hanyao Hu (Purdue University), Marcel Menner, Yebin Wang (Mitsubishi Electric Research Laboratories), Huazhen Fang (University of Kansas School of Engineering), Dengfeng Sun (Purdue University), Tomoki Takegami (Mitsubishi Denki Kabushiki Kaisha Sentan Gijutsu Sogo Kenkyujo)

EATS-02 | In Person - Gaslamp C

Hybridization Impact on Emissions for Hydrogen Fuel-Cell/Turbo-Electric Aircraft
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Elias Waddington, Himavath Jois, Matthew G Lauer, Yogi Patel, Phillip J Ansell (University of Illinois Urbana-Champaign)

(continued) EATS-02 | In Person - Gaslamp C

H2GEAR Hydrogen Electric Powertrain – System Architecture
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Michael O Hales, Norman Wood, Stephen Harrison, Simon Taylor, Mark Husband, Joseph Stonham, Chuanli Zhao, David Ettridge, Desmond Westmore (GKN Aerospace)

Conceptual Design of Air and Thermal Management in a Nacelle-Integrated Fuel Cell System for an Electric Regional Aircraft
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Chetan Kumar Sain, Jeffrey Hänsel, Stefan Kazula (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Analysis of hybrization for the use of hydrogen for aircraft propulsion in an existing platform
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Víctor M de Frutos, Juan R. Parra, Sergio Esteban, Carlos Bordons (Universidad de Sevilla Escuela Tecnica Superior de Ingenieria de Sevilla)

Preliminary design and simulation of a hydrogen-powered regional aircraft
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Quentin Noharet (Siemens AG)

ACD-12/TF-09 | In Person - Balboa B

Multi-fidelity design of coaxial rotor blades through RANS-based freewake adjustment
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Dawoon Lee, Yoonpyo Hong, Junhwi Park, Kwanjung Yee (Seoul National University)

Study of acoustic emissions of ducted coaxial rotors of UAVs within the UAM scenario in the conceptual design stage
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Laura Babetto, Johannes Goetz, Eike Stumpf (Institute of Aerospace Systems - RWTH Aachen University)

An Investigation into the Electrification of an Advanced Tiltrotor Concept
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Geoff Chen, Julius M Vegh, Andrew Milligan (US Army Combat Capabilities Development Command Aviation & Missile Center Aeroflightdynamics Directorate)

WEIGHT FRACTION ESTIMATION FOR EVTOL VEHICLE SIZING
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
SeongWoo Shim, SunHoo Park, Sang Joon Shin (Seoul National University)

FD-17 | In Person - Mission Beach A

Wiener-Hopf approach applied for the control of forced turbulent jets
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Diego Bonkowski Sierra Audiffred, André Valdetaro Gomes Cavalieri (Instituto Tecnológico de Aeronáutica, Divisão de Engenharia Aeronáutica), Peter Jordan, Eduardo Martini, Filipe Ramos Amaral (Institut Pprime-CNRS-Université de Poitiers-ENSMA), Igor Maia (ISAE-SUPAERO)

Dynamic Mode Decomposition based Control of Backwards Facing Step Reattachment by Opposite Side Acoustic Actuation
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Owen Sinclair, Marko Bacic, Chris Nicholls (University of Oxford)

Application of Neural Network Surrogate Models for Flow Control
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Tarcísio Déda Oliveira, William Wolf, Scott T M Dawson (Universidade Estadual de Campinas)

TP-11 | In Person - Golden Hill B

Projection-based Reduced-Order Models with Hyperreduction for Finite Element Simulations of Thermal Protection Systems
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Patrick Joseph Blonigan (Sandia National Laboratories California), John Thomas Tencer (Sandia National Laboratories), Francesco Rizzi (NexGen Analytics)

Two-Phase Refrigerant R134a Void Fraction Pulse Power Study
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Zachary J Carner, Mitch Wolff (Wright State University College of Engineering and Computer Science), Abdeel Roman (Air Force Research Laboratory)

Thermal design of heat pipe cooling systems: conceptual design and numerical development
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Roberto Scigliano, Valeria De Simone (Centro Italiano Ricerche Aerospaziali), Roberta Fusaro, Davide Ferretto, Nicole Viola (Politecnico di Torino)

(continued) TP-11 | In Person - Golden Hill B

Application of a Plasma Based Thermionic Generator for High-Tempearature Surfaces
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Aleksander Madison Clark, Kyle Pride, Zhili Zhang (The University of Tennessee Knoxville Tickle College of Engineering), Niabo Jiang, Sukesh Roy (Spectral Energies), Timothy Ombrello, Steven Adams (Air Force Research Laboratory Aerospace Systems Directorate)

CFD-14 | In Person - Ocean Beach

Bandwidth-Optimized Summation-by-Parts Operators for High-Resolution Turbulent Flow Simulations
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
James G Coder (The Pennsylvania State University)

High-Order Implicit Shock Tracking for Finite-Source Spherical Blast Waves
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Charles J Naudet, Matthew Joseph Zahr (University of Notre Dame)

High-Order Implicit Shock Tracking for Three-Dimensional High-Speed Flows
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Tianci Huang, Matthew Joseph Zahr (University of Notre Dame)

Development of a local time step for high-order flux reconstruction scheme based on subcell finite volume discretization
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Jesus Pueblas, Fernando Gisbert (ITP Aero)

From RANS to LES : Comparison of SImulation Methodologies for the Imperial Front Wing
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Andrew Steven O'Sullivan, Kunal Puri, Charles Hirsch (Cadence Design Systems Inc)

HSABP-07/INPSI-06 | In Person - Gaslamp D

Computational Study of an Internal Osculating Waverider Intake
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Andrew J Shuck, Mark E Noftz, Joseph S Jewell, Jonathan Poggie (Purdue University), Andrew Bustard, Thomas J Juliano (University of Notre Dame), Nicholas J Bisek (Air Force Research Laboratory)

Experiemental Investigations of the Hypersonic Streamtraced Performance Inlet at Sub-Design Mach Number and Varying Angles of Attack
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Matthew J Schram, William Stramecky, Venkateswaran Narayanaswamy (NC State University)

Wavelet Filter for Inlet-Unstart Precursor Detection
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Dzu K Le (NASA John H Glenn Research Center)

Investigation of an Inward Turning Intake in a Mach 6 Quiet Tunnel at Off-Design Conditions
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Mark E Noftz, Andrew J Shuck, Joseph S Jewell, Jonathan Poggie (Purdue University), Andrew Bustard, Thomas J Juliano (University of Notre Dame), Nicholas J Bisek (Air Force Research Laboratory)

Investigation of a Internal Osculating Waverider Intake with Fast Pressure-Sensitive Paint and Schlieren
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Andrew Bustard, Mitsugu Hasegawa, Thomas J Juliano (University of Notre Dame), Mark E Noftz, Andrew J Shuck, Joseph S Jewell, Jonathan Poggie (Purdue University), Nicholas J Bisek (Air Force Research Laboratory)

APA-27 | In Person - Hillcrest C

Computational Analysis of Laminar Steady Hypersonic Flow past Blottner Sphere Using ANSYS Fluent
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Aidan R Murphy, Ramesh K Agarwal (Washington University in St Louis)

Wall-Resolved LES of Mach 6 BoLT-2 Hypersonic Vehicle
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Vishal A Bhagwandin, Pino Martin (University of Maryland at College Park)

Experiments on Flat-BOLT Surrogates for Investigating the Impact of the Nose Region on Acreage Heating and Transition to Turbulence
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Kevin Basore, Stefan Wernz (Raytheon Missiles & Defense), Carey F. Scott, Scott Berry (NASA Langley Research Center)

(continued) APA-27 | In Person - Hillcrest C

Numerical investigation of the influence of the rarefaction degree on a waverider aerodynamic performances in super-/hypersonic regimes

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong

Damien Toussaint, Jean-Philippe Braeunig, Céline Baranger (CEA-Cesta), Hugo Noubel, Viviana Lago (CNRS/ICARE)

AA-29 | In Person - Cortez Hill A

Aeroacoustic simulations of full-scale sedan vehicle towards interior noise predictions

Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong

Guillaume A Brès, Christopher B Ivey, David A Philips, Sanjeeb Bose (Cascade Technologies Inc), Masashi Miyazawa, Kazuya Morishita, Minoru Teramura (Honda R & D Co Ltd Innovative Research Excellence)

Validation of an advanced Turbulent Boundary Layer noise model using low speed wind tunnel tests on a Falcon fuselage.

Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong

Virginie Bonneau, Stéphane Lemaire, Vincent Fleury, Yann Revalor (Dassault Aviation)

Evaluation of an Additive-Manufactured Acoustic Metamaterial as an Nacelle Liner using the Active Noise Control Fan

Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong

Eoghan P. Ross (The University of Dublin Trinity College), Kelvin M Figueroa-Ibrahim, Scott Morris (University of Notre Dame), Gareth J Bennett (The University of Dublin Trinity College)

Acoustic Metamaterial Based Directionally Sensitive Sensors

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong

Erik Braaten, Shishir Damani, William N Alexander, William J Devenport (Virginia Polytechnic Institute and State University), Timothy A. Starkey, Benjamin P. Pearce, Alastair P. Hibbins, J. Roy Sambles (University of Exeter)

Low-frequency broadband noise absorption by multi-chamber micro-perforated panel absorbers under grazing flow conditions

Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong

Jiayu Wang, Gareth J Bennett (The University of Dublin Trinity College), Thomas Humbert, Yves Auregan (Laboratoire d'Acoustique de l'Universite du Mains)

VSTOL-01/EATS-04 | In Person - Harbor I

E-VTOL Concept Design with a New Underwing 'FanFoil' Ducted Fan Concept to Improve Aerodynamic Efficiency

Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong

Jack Hicks, Colby Reynolds, Nathan Shapiro, Zachary Lee, David Gould, Matthew Carnegie, Luke Jackson, Harrison Childre, Muhammad Saleem, Victor Maldonado (Texas Tech University System)

Estimating Mission-Based Energy and System Dynamics of e-VTOL Aircraft

Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong

Nirmit Prabhakar, Francesco Salucci, Dominik Karbowski (Argonne National Laboratory)

Energy-based Preliminary Sizing and Hover Performance Assessment of Hybrid-Electric VTOL Aircraft

Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong

David E Lampl, Sophie F Armanini (Technische Universitat Munchen)

Design and Programmatic Overview of the Research Aircraft for eVTOL Enabling techNologies (RAVEN) Activity

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong

Brian German, Ayush Jha (Georgia Institute of Technology), Jason Welstead, Siena Whiteside, Nathaniel J Blaesser (NASA Langley Research Center)

Life Cycle Assessment of eVTOL Aircraft

Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong

Marie Rajon Bernard, Jayant Mukhopadhaya (International Council on Clean Transportation)

AA-30 | In Person - Harbor B

Experiments on installed jet noise

Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong

Filipe Ramos Amaral, Anton Lebedev, Peter Jordan (Institut Pprime)

Acoustic Characterisation of an Installed Elliptical Jet at Mach 0.9

Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong

Jayson Beekman, Joel Weightman (Monash University), Peter Jordan (Centre National de la Recherche Scientifique), Petrônio A. S. Nogueira, Daniel M Edgington-Mitchell (Monash University)

The Effect of Nozzle Lip Corrugations on Installed Jet Aeroacoustics

Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong

Anderson Proenca (Cranfield University), Jack Lawrence, Francisco de Souza (University of Southampton)

(continued) AA-30 | In Person - Harbor B

Aeroacoustic Analysis of an Installed Chevron Nozzle Jet using the High-Order Discontinuous Galerkin Method
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Daniel Lindblad, Spencer J. Sherwin, Chris D. Cantwell (Imperial College London), Jack Lawrence (University of Southampton), Anderson Proenca (Cranfield University), Margarida Moragues Ginard (Centro Vasco de Matematicas Aplicadas)

The Effect of Scarfed Nozzles on Jet Installation Noise: a Combined Computational and Experimental Study
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Hussain Ali Abid (Queen Mary University of London), Hasan Kamliya Jawahar (University of Bristol), Annabel P Markesteijn, Sergey A Karabasov (Queen Mary University of London), Mahdi Azarpeyvand (University of Bristol)

Subsonic installed Jet noise scattering prediction using BEM and near-field-data-optimized Wave-Packet model
Wednesday, 14 June 11:10 - 11:30 (UTC-7) | Start:</strong
Giorgio Palma (Universita degli Studi Roma Tre Centro di Ateneo per lo Studio di Roma), Stefano Meloni (Universita degli Studi della Tuscia), Roberto Camussi, Umberto Iemma (Universita degli Studi Roma Tre Centro di Ateneo per lo Studio di Roma)

LTA-02 | In Person - Promenade B

Modular Open Architecture UAS Test Platform System of Systems
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jason Theodore White (Galaxy Unmanned Systems LLC)

Methodology for conceptual sizing of an aerostat
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Chaitanya Bansal (Amity International School, Sector-46, Gurugram, Haryana), Rajkumar S Pant (Indian Institute of Technology Bombay)

Dynamic Modeling on Descending of a Small Lighter Than Air Vehicle
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Long Thanh Tran, Hui Wan (University of Colorado Colorado Springs), Anthony N Palazotto (Air Force Institute of Technology)

MDO-10 | In Person - Old Town A

Representing Cost as an Independent Variable in Model Based Systems Engineering
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Richard R Chipman, Jeffrey S Knox (Leidos Inc)

Multidisciplinary Design and Mission Analysis of an Electric Amphibious Flying Vehicle
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
James Mingzhi Shihua, Yuan Lyu, Rhea P Liem (The Hong Kong University of Science and Technology School of Engineering)

Graph-Based Linking of Model-Based Systems Engineering and Multidisciplinary Design Optimization
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Rajashekar Swaminathan, Darshan Sarojini, John T Hwang (University of California San Diego)

From Requirements to Product: Digitization of the Aircraft Design Process using MBSE, MDAO and KBE
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Anne-Liza Bruggeman, Gianfranco La Rocca (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

GT-10 | In Person - Solana Beach B

AA-31 | In Person - Harbor A

An energy-based trim procedure for VTOL noise reduction
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Caterina Poggi, Giovanni Bernardini, Massimo Gennaretti (Universita degli Studi Roma Tre)

Rapid Optimisation of Propellers with Tonal and Broadband Aeroacoustic Constraints
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Shaun F Pullin, Beckett Yx Zhou, Mahdi Azarpeyvand (University of Bristol)

Numerical and experimental investigation of propeller noise with trailing-edge serrations
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Bin Zang, Liam P Hanson (University of Bristol), Aimee Stoltz, Wei Hua Ho (University of the Witwatersrand Johannesburg), Xiao Liu, Mahdi Azarpeyvand (University of Bristol)

Adjoint-Based Aeroacoustic Optimization of Propeller Blades in Rotating Reference Frame
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Luca Abergo, Myles Morelli (Politecnico di Milano), Beckett Yx Zhou (University of Bristol), Alberto Guardone (Politecnico di Milano)

Noise Reduction on a Model Helicopter using DBD Plasma Actuators
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Oksana Stalnov, Dor Polonsky, David Greenblatt (Technion Israel Institute of Technology)

APA-26 | In Person - Hillcrest A

Assessment of Multi-Fidelity Surrogate Approaches for Expedient Loads Prediction in High-Speed Flows
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Tyler Korenyi-Both, Jack J McNamara, Jon A Willems (The Ohio State University), Daniel Archer Reasor (Air Force Research Laboratory)

Geometric-Deep-Learning Multi-Grid Autoencoder Framework for Unsteady Pressure Predictions on a Moving Wing.
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
David Massegur Sampietro, Andrea Da Ronch (University of Southampton Faculty of Engineering and Physical Sciences)

Deep–learning framework for aircraft aerodynamics prediction
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
gabriele immordino, Andrea Da Ronch (University of Southampton), Marcello Righi (Zurcher Hochschule fur Angewandte Wissenschaften)

FD-18 | In Person - Hillcrest D

Fluid-Structure Interactions for a Blunt Fin over a Compliant Panel in Mach 2 Flow
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
John G Mills, Gregory Elliott, Craig Dutton, David A Ehrhardt (University of Illinois Urbana-Champaign)

Fully coupled aero-thermo-elastic analysis of shock-wave and turbulent boundary layer interactions
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Al Shahriar, Rajan Kumar, Kourosh Shoele (FAMU FSU College of Engineering)

The Effects of Dynamic Surface Motion on Flow Separation in Laminar Shock - Boundary Layer Interactions
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
James Fields, Jack J McNamara (The Ohio State University), Caleb J Barnes (Air Force Research Laboratory), Datta V Gaitonde (The Ohio State University)

Shock-wave/turbulent boundary-layer interaction over a flexible panel
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Luis Laguarda, Stefan Hickel, Ferry F. J. Schrijer, Bas van Oudheusden (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Investigation of Fully-Coupled Conjugate Heat Transfer and Shock-Wave/Boundary-Layer Interactions using LES
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Julia Muller, Chelsea Johnson, Joseph Oefelein (Georgia Institute of Technology Daniel Guggenheim School of Aerospace Engineering)

GT-05 | In Person - Promenade A

The ongoing history of the Task-type Wind Tunnel Balance.
Wednesday, 14 June 09:30 - 10:10 (UTC-7) | Start:</strong
Frederick A Snyder (Aerophysics Research Instruments)

Machine Loading of TASK Multipiece Balances
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Travis Ryan, Ryan S Kew (Calspan Corp)

The enduring role of TASK balances in wind tunnel testing at the National Research Council Canada
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Jean-Eric Sink, Heather Clark (National Research Council Canada)

ACD-11 | In Person - Balboa A

Geometry and Trim Parameters' Influence on Joined-Wing Flight Dynamics
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Julius W. Quitter, Matthew Marino (RMIT University)

A Review of High-Speed Aircraft Stability and Control Challenges
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Timothy T Takahashi (Arizona State University Ira A Fulton Schools of Engineering), Jack A Griffin, Ramana V Grandhi (Air Force Institute of Technology)

FD-19 | In Person - Mission Beach C

Development and Application of Plasma Induced Wave Packets in a Mach 5 Boundary Layer
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Ashish Singh, Christoph Hader, Alejandro Hamilton Roskelley Garcia, Jesse C Little, Hermann F Fasel (The University of Arizona)

Numerical investigation of the linear and nonlinear transition stages for a sharp cone at Mach 10 and angle of attack
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Christoph Hader, Hermann F Fasel (University of Arizona)

(continued) FD-19 | In Person - Mission Beach C

On the Unsteadiness of a Hypersonic Flow over an Axisymmetric Double Cone using Kinetic Methods
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Irmak Taylan Karpuzcu, Deborah A Levin (University of Illinois Urbana-Champaign), Vassilios Theofilis (University of Liverpool Faculty of Science and Engineering)

Effect of Model-Dependent Mean Flows on Hypersonic Boundary-Layer Stability Analysis
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Xiaowen Wang (National Institute of Aerospace), Fei Li (NASA Langley Research Center)

Validation of Porous Impedance Boundary Condition for a PSE code
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Tony Liang, Joseph Kuehl (University of Delaware)

Receptivity of a super-sonic acoustic mode through a normal shock
Wednesday, 14 June 11:10 - 11:30 (UTC-7) | Start:</strong
Shaun Harris, Ross M Wagnild (Sandia National Laboratories)

UAS-06 | In Person - La Jolla B

Optimizing Sensor Paths for Ground Target Search from UAVs with Statistical Models
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Johannes Ostler, Peter Stütz (Universitat der Bundeswehr Munchen Fakultat fur Luft- und Raumfahrttechnik)

Test and Modeling of an Aquatic sUAS Propulsion System
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Victoria R Lenze, Simon Miller, Julia Cole (The Pennsylvania State University)

Reactive Pilot Model Design for Automatic Mission Simulation of a Transition Vehicle
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Denis Surmann, Nico Sauert, Luca Hein, Stephan Myschik (Universität der Bundeswehr München, Fakultät Maschinenbau, Neubiberg, Bayern, DE)

EATS-03 | In Person - Harbor E

Development of Freeze Tolerant Thermosyphon Evaporator for Electric Aircraft Solid State Thermal Management System
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jeff Diebold, Brett Leitherer, Ramy Abdelmaksoud, Calin Tarau, Kuan-Lin Lee (Advanced Cooling Technologies Inc), Rodger W Dyson (NASA John H Glenn Research Center)

Assessment of Metal Hydride Reactors as Thermal Management Enhancement of Hydrogen Fuel Cells in Electric Aircraft
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Florian Franke, Antje Link, Stefan Kazula (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Development of Spiral Pulsating Heat Pipe Heat Exchanger for Electric Aircraft Solid State Thermal Management System
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Brett Leitherer, Kuan-Lin Lee, Jeff Diebold, Calin Tarau, Ramy Abdelmaksoud (Advanced Cooling Technologies Inc), Rodger W Dyson (NASA)

Experimental Demonstration and Characterization of a Ceramic Sintered Wick Heat Pipe Evaporator
Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
William Sixel (NASA Glenn Research Center), Massoud Kaviany (University of Michigan), Gisuk Hwang (Wichita State University)

Functional Approach to a Fuel Cell Thermal Management System in Safety-Critical Applications
Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Viola Voth, Sascha Mike Lübbe, Michael Schäfer, Axel Berres, Oliver Bertram (Deutsches Zentrum fur Luft- und Raumfahrt eV)

SR-01 | In Person - Bankers Hill

Unsteady Velocity Potential Formulation for the Thermoacoustic Wave Analysis of One-Dimensional Chamber Configurations
Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Cody Shelton, Anthony D Marcello, Joseph Majdalani (Auburn University)

Effects of Various Flame Temperature Distributions on Pressure and Velocity Waveforms in Rijke Tubes
Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Emma Signor, Cody Shelton, Joseph Majdalani (Auburn University)

Solid Rocket Motor Internal Ballistics Using a Vortex Particle Method
Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Griffin A DiMaggio, Roy J Hartfield (Auburn University), Vivek Ahuja (Research in Flight)

(continued) SR-01 | In Person - Bankers Hill

A Survey of Machine Learning in Rocket Propulsion Applications

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Brian A Maicke (Penn State Harrisburg)

AA-32 | In Person - Torrey Hills A

Numerical Validation of an Aeroacoustic Scaling Approach

Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Stefanie Lohse (Leibniz Universitat Hannover), Stéphane Moreau (Universite de Sherbrooke), Jörg R. Seume (Leibniz Universitat Hannover)

An Analytical Approach to Predicting Shock-Trailing Edge Interaction Noise

Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Matti Graebert, Robert Jaron, Antoine Moreau (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Influence of non-dimensional parameters on the tip leakage noise

Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Ivan Saraceno, Sergi Palleja Cabre, Chaitanya Choudary Paruchuri, Bharath Ganapathisubramani (University of Southampton)

Using CLEAN-SC for determining the directivity of engine noise sources

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Pieter Sijtsma (PSA3)

Beamforming in an annular duct with swirling flow

Wednesday, 14 June 10:50 - 11:10 (UTC-7) | Start:</strong
Pieter Sijtsma (PSA3), Harry Brouwer (Koninklijk Nederlands Lucht- en Ruimtevaartcentrum), Mirjam Snellen (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

FD-20 | In Person - Mission Beach B

Interactions between a Mach 3 Turbulent Boundary Layer and the Post-Flutter Response of a Fully-Clamped Compliant Panel

Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Scott J Peltier, Autumn Garner, Christopher Clifford (Air Force Research Laboratory Aerospace Systems Directorate), Garrett Jones, Jacob Floyd (Axient LLC), Daniel Archer Reasor, Thomas Mason (Air Force Research Laboratory Munitions Directorate)

Combined Effects of Pressure Gradient Tailoring and Free-Stream Turbulence on Bluff Body Stabilized Flames

Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Tyler J Souders, Samuel H.R. Whitman, Michael A. Meehan, Peter E Hamlington (University of Colorado Boulder)

Direct Numerical Simulation of a Turbulent Boundary Layer over Acoustic Liners

Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Haris Shahzad, Stefan Hickel, Davide Modesti (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Modifying One-Dimensional Energy Spectrum Model for Wall-Bounded Flow

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Nikolay Gustenyov, Sean Bailey (University of Kentucky)

FD-21 | In Person - Pier

Effects of Atmospheric Stratification on the Dynamics of a Lift Vortex Wake with Jet Interaction

Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Pierre Saulgeot, Vincent Brion (ONERA Meudon), Navrose Navrose (Indian Institute of Technology Kanpur), Nicolas Bonne (ONERA Palaiseau), Emmanuel Dormy (Ecole Normale Superieure), Laurent Jacquin (ONERA Palaiseau)

Reattaching jet response to transverse acoustic excitation

Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong
Chris Nicholls, Kharthik Chakravarthy, Brian Tang, Ben A O Williams, Marko Bacic (University of Oxford)

The Formation and Evolution of a Ground Vortex in a Nacelle Inlet Flow Field

Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong
Derek A Nichols, Bojan Vukasinovic, Ari Glezer (Georgia Institute of Technology)

Numerical Investigation of the Effect of Trailing-Edge Morphing on Dynamic Stall using Delayed Detached Eddy Simulations

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong
Jessica G Shum, Seongkyu Lee (University of California Davis)

ATS-08 | In Person - Balboa C

Compressed Representations of Ensemble Forecasts for Strategic Traffic Flow Management Artificial Intelligence

Wednesday, 14 June 09:30 - 09:50 (UTC-7) | Start:</strong
Sandip Roy (Washington State University), Erik Vargo, Christine P Taylor (The MITRE Corporation)

(continued) ATS-08 | In Person - Balboa C

Impacts and Mitigations of Convective Weather on Trajectory Based Operation Automation

Wednesday, 14 June 09:50 - 10:10 (UTC-7) | Start:</strong

Gabriele Enea, Michael McPartland, Stephen DePascale, David Johnson, Derek Eberle (Massachusetts Institute of Technology Lincoln Laboratory)

13:00 | Technical Paper Session

AA-33 | In Person - Cortez Hill B

Innovative Coatings for the Reduction of Flow-Induced Cylinder Noise Based on the Alteration of Sound Diffraction

Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong

Riccardo Zamponi, Francesco Avallone, Daniele Ragni, Sybrand van der Zwaag (Technische Universiteit Delft)

Structured Porous Coated Cylinder Modifications Based on Internal Flow Field Data

Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong

Max M Scholz (Brunel University London College of Engineering Design and Physical Sciences), Elias Arcondoulis (Southern University of Science and Technology), Philip C Woodhead, Tze Pei Chong, Edward Smith (Brunel University London College of Engineering Design and Physical Sciences)

APA-34 | In Person - Hillcrest B

Control of Flow Separation using Fluidic Oscillators on a NACA 0015 Aerofoil

Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong

Arpit Chaudhary, Kamal Poddar (Indian Institute of Technology Kanpur)

Asymmetric Control of Subsonic Axisymmetric Jet Aerodynamics using Plasma Actuators

Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong

Drew Mills, Ethan Cartwright, Nathan J Webb (The Ohio State University)

Effects of Boundary Layer Suction on a Laminar Separation Bubble on a HLFC Wing

Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong

Michelangelo Corelli Grappadelli, paolo olivucci, Camli Badrya (Technische Universitat Braunschweig)

LES exploration of alternative coflow jet flow control application on a NACA 6421 wing

Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong

Philip E Morgan (Ohio Aerospace Institute), Daniel J Garmann, Miguel R Visbal (Air Force Research Laboratory Aerospace Systems Directorate)

Experimental Investigation of an Airfoil with Spanwise Wavy Trailing Edge

Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong

Paulo Henrique Ferreira, Rodrigo Costa Moura, Adson Agrico de Paula (Instituto Tecnologico de Aeronautica)

TP-12 | In Person - Golden Hill A

Radiation Interaction with Particulates in Planetary Entry Flows

Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong

Andrew Hinkle, Christopher O Johnston (NASA Langley Research Center), Serhat Hosder (Missouri University of Science and Technology)

Inverse estimation of the Kentucky Re-entry Universal Payload System (KRUPS) flight trajectory

Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong

Bruno D. Tacchi, Alexandre Martin, Savio James Poovathingal (University of Kentucky)

KREPE: The First Orbital Mission of the KRUPS Project

Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong

Kirsten F Ford (University of Kentucky)

Simulation of Radiative Heat Transfer in Thermal Protection Systems employing Reduced Order models in the Spectral domain

Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong

Prathamesh R Sirmalla (University of Illinois Urbana-Champaign), Robert Chiodi (Los Alamos National Laboratory), Marco Panesi, Daniel J Bodony (University of Illinois Urbana-Champaign)

MDO-12 | In Person - Old Town B

Comparing Hydrogen and Jet-A for a Ultra High-Bypass Turbofan with Water Recirculation.

Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong

Peter N Atma, Andrew H Lamkin, Joaquim R. R. A. Martins (University of Michigan)

Gradient-based sizing optimization of power-beaming-enabled air platforms

Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong

Nicholas C Orndorff, Bingran Wang, John T Hwang (University of California San Diego)

(continued) MDO-12 | In Person - Old Town B

Blended wing body configuration for hydrogen-powered aviation
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Eytan Adler, Joaquim R. R. A. Martins (University of Michigan)

APA-33 | In Person - Torrey Hills B

Uncovering the Aeroelastic Behavior of Light Aircraft Structures with SlenderWings under Extreme Flow Turbulence Intensity
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Wolduamlak B Ayele, Victor Maldonado (Texas Tech University)

Tailerons for Aeroelastic Stability and Control of Flexible Wings
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Peter Sharpe, Annick Dewald, Mark Drela (Massachusetts Institute of Technology)

Vibration Attenuation of Rotating Blades Using a Non-Linear Energy Sink
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Ira P Wall, Mohammadreza Amoozgar, Atanas Popov (University of Nottingham)

Fluid-Structure Coupled Analysis of Maneuver Load Alleviation on a Large Transport Aircraft
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Christian Breitenstein (Technische Universitat Braunschweig Institut fur Stromungsmechanik), Jens Müller, Marco Hillebrand (Universitat Stuttgart Institut fur Aerodynamik und Gasdynamik), Malte Woidt, Matthias Haupt (Technische Universitat Braunschweig Institut fur Flugzeugbau und Leichtbau), Rolf Radespiel (Technische Universitat Braunschweig Institut fur Stromungsmechanik)

Boundary-Layer Transition Buffet on a Laminar Airfoil
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Marc Braune, Holger Mai (Deutsches Zentrum fur Luft- und Raumfahrt eV)

CFD2030-01 | In Person - Cove

Assessing Reynolds Number Effects for flow over a Gaussian bump using Wall-modeled LES
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Prahladh Satyanarayanan Iyer (National Institute of Aerospace), Mujeeb R Malik (NASA Langley Research Center)

Experimental and Computational Evaluation of Smooth-Body Separated Flow over Boeing Bump
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Patrick D Gray (University of Notre Dame), Matthew T Lakebrink (The Boeing Company), Flint O Thomas, Thomas C Corke (University of Notre Dame), Igal Gluzman (Technion Israel Institute of Technology), Joseph Straccia (The Boeing Company)

Wall-modeled LES based on building-block flows: Application to the Gaussian Bump
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Gonzalo Arranz, Yuenong Ling, Adrian Lozano-Duran (Massachusetts Institute of Technology)

Large-Eddy Simulation of Flow over Boeing Gaussian Bump Using Multi-Agent Reinforcement Learning Wall Model
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Di Zhou (California Institute of Technology), Michael Patrick Whitmore, Kevin Patrick Griffin (Stanford University), Hyunji Jane Bae (California Institute of Technology)

A Blind Validation CFD Challenge Case for 3D Smooth-Body Turbulent Separation
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Christopher J Roy, Todd Lowe, William J Devenport, Aurelien Borgoltz, Agata Grzyb, Daniel Binu, Julie E Duetsch-Patel, Aldo Gargiulo (Virginia Polytechnic Institute and State University)

CFD-17 | In Person - Solana Beach A

Extension of a Viscous Cartesian Cut-Cell Solver to the Compressible RANS Equations
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Alexander O Kleb, Krzysztof Fidkowski, Joaquim R. R. A. Martins (University of Michigan)

Does Drone Airflow Compromise Atmospheric Measurements using on-board Sensors: A Simulation and Generalized Scaling Approach
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Hayden A Hedworth, Tony Saad (The University of Utah)

AA-34 | In Person - Cortez Hill A

Noise Prediction for Aircraft during Approach by Neural Network Using Sound Source Data Obtained from Microphone Array Measurement
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Yuho Ikuta, Taro Imamura (Tokyo Daigaku), Takehisa Takaishi (Uchu Koku Kenkyu Kaihatsu Kiko), Tomohiro Kobayashi (Ippan Zaidan Hojin Kobayashi Rigaku Kenkyujo)

(continued) AA-34 | In Person - Cortez Hill A

Multivariate and Cluster Analysis of Factors Contributing to Airport Departure and Approach Noise Variation
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Jacqueline L Huynh, Trinity Lee (University of California Irvine), Philip Hood, R John Hansman (Massachusetts Institute of Technology)

Low-noise retrofit measures for mid-range transport aircraft: simulation benchmark with flyover noise measurements and assessment along different apprach trajectories
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Lothar Bertsch, Michael Pott-Pollenske, Jason Blinstrub, Felix Wienke, Jan Delfs (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Aircraft Noise Assessment around Hong Kong International Airport
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Chunhui WU, Stéphane Redonnet (The Hong Kong University of Science and Technology School of Engineering)

Validation of the Aircraft Noise and Performance Database Source Spectra
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Rebekka C van der Grift, Mirjam Snellen, Dick G Simons (Technische Universiteit Delft)

EATS-05 | In Person - Gaslamp B

True Zero Emission Electric Aircraft Propulsion Transport Technology
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Rodger W Dyson (NASA)

Thermal Design and Analysis of Subsonic Single Aft Engine (SUSAN) Research Aircraft Batteries
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Firas Asfoor, Shay Ellafrits (NASA John H Glenn Research Center)

Experimental Validation of a Module-Level Battery Safety System for Thermal Runaway Containment
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Patrick Zdunich, Alexander D Crain, Manuel Hernandez, Evan Gibney, Steven Recoskie, Natesa MacRae, Darren Jang (National Research Council Canada)

Experimental Study on SOFC/GT Hybrid Engine for Liquid Hydrogen Fueled Electric Propulsion System
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Takayuki Kojima, Keiichi Okai, Takeshi Tagashira, Yoshitaka Fukuyama (Uchu Koku Kenkyu Kaihatsu Kiko Koku Gijutsu Bumon)

Impact of Cruise Airspeed Mode on Li-Po Battery Usage for a Multirotor Aircraft
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Chetan Shrikant Kulkarni (KBR, NASA Ames Research Center), Priyank Pradeep (Universities Space Research Association), Gano Broto Chatterji (Crown Consulting Inc)

Electro-Thermal Modeling of Fuel Cells and Batteries for CHEETA Aircraft
Wednesday, 14 June 14:40 - 15:00 (UTC-7) | Start:</strong
Meaghan Podlaski (Rensselaer Polytechnic Institute), Abhijit N Khare (General Electric Company), Luigi Vanfretti (Rensselaer Polytechnic Institute)

TP-13 | In Person - Golden Hill B

Ab initio molecular simulations to compute the thermal conductivity of air components at high temperatures
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Paolo Valentini, Maninder S Grover (University of Dayton Research Institute), Ashley M Verhoff, Nicholas J Bisek (Air Force Research Laboratory)

Flash Diffusivity Measurement of Semi-Porous Insulation Material Intended for Radioisotope Thermoelectric Generators
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Robert L McMasters, Logan Baarlaer (Virginia Military Institute), Hsin Wang (Oak Ridge National Laboratory)

Development of an Optical Model for the MEDLI2 Radiometer
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
James B. Scoggins, Alireza Mazaheri, Christopher O Johnston (NASA Langley Research Center)

Uncertainty Analysis of Slug Calorimeters in the Hypersonic Material Environmental Test System Arc-Jet Facility
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Andrew J Brune (NASA Langley Research Center), Chelsey Morrow (North Dakota State University)

Numerical Analysis of Oscillating Heat Pipes for High Heat Flux Applications
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Rohan B Tadepalli, Satish Kumar (Georgia Institute of Technology)

HSABP-08/INPSI-07 | In Person - Gaslamp D

High-Fidelity Optimization of Two-Dimensional Scramjet Inlets
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Nicholas J DiGregorio (NASA Langley Research Center), Seongim Choi (Virginia Polytechnic Institute and State University)

Flow Separation Measurements in Regions of SBLI using Wall Shear Sensors
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Nicholas J Molinaro, Daniel Simmons, Ryan J Meritt (Ahmic Aerospace)

Wall-normal FLEET Velocimetry in a Canonical Hypersonic Inlet
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Christopher Limbach (University of Michigan), John C Pehrson, Richard Miles (Texas A&M University System), Matthew T Lakebrink (Boeing Research and Technology)

Supersonic External-Compression Inlets for Mach 1.4 to 2.0
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
John W Slater (NASA)

Design and Analysis of a Jet Stretcher for High-Altitude Supersonic Free Jet Testing
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Brian Heberling, May-Fun Liou (NASA), Heath H Reising (HX5 LLC)

APA-32 | In Person - Hillcrest C

CFD Validation of a Hypesonic Cone-Slice-Flap Variable Geometry Configuration
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Laura White, Thomas K West, Matthew N Rhode, Elizabeth Rieken (NASA Langley Research Center), Jacob Lampenfield, Daniel Rodriguez (Analytical Mechanics Associates)

Roughness-Induced Boundary-Layer Transition on a 7-Degree Half-Angle Cone in Mach-6 Quiet Tunnel
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Bethany Price, Joseph S Jewell (Purdue University)

Application of Schlieren Methods to Flared Cone in Mach-6 Quiet Tunnel
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Zachary A McDaniel, Joseph S Jewell (Purdue University)

Experimental Investigation of a Compression Corner on a Sliced Cone at Mach 6 at Angle of Attack
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Adelbert A Francis, Joseph S Jewell (Purdue University)

Separation Bubble Instability Measurements on a Cone-Slice-Ramp at Mach 6
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Adelbert A Francis, Joseph S Jewell (Purdue University)

VSTOL-02/TF-12 | In Person - Harbor I

An Experimental Study of the Performance of Ducted Fan Arrays for Distributed Electric Propulsion
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Johann Dorfling, Lance W Traub (Embry Riddle Aeronautical University - Prescott)

Cascaded nonlinear dynamic inversion applied to a fixed-wing distributed electric propulsion aircraft
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Johannes SE Soikkeli (Pipistrel Vertical Solutions), Drago Matko (Univerza v Ljubljani), Thomas Koopman (Pipistrel Vertical Solutions)

Design optimization for improved HQ and performance of a DEP aircraft
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
DAVID PLANAS (ISAE-SUPAERO), Carsten Döll (ONERA Traitement de l'information et systemes), Philippe Pastor (ISAE-SUPAERO)

Feasibility Analysis of a Flying Car with In-Wheel Electric Ducted Fans
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Markus M Sailer, David E Lampl, Sophie F Armanini (Technische Universitat Munchen)

AA-35 | In Person - Harbor B

Influence of the nozzle-exit boundary-layer thickness on the noise produced by subsonic impinging jets
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Hugo Vincent, Christophe Bogey (Ecole Centrale de Lyon)

Flow Fields of Internally Mixed Exhaust Systems With External Plug For Supersonic Transport Applications
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
James E Bridges, Mark P Wernet (NASA Glenn Research Center), Puja Upadhyay, Heath H Reising (HX5, LLC)

(continued) AA-35 | In Person - Harbor B

Feedback Inside a Low-Bypass Confluent Nozzle
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
David N Ramsey, Krishan K Ahuja (Georgia Institute of Technology)

Self-Excited Instabilities in Separation Bubbles near the exit of a Low-Bypass Confluent Nozzle and the Resulting Resonance
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
David N Ramsey, Krishan K Ahuja (Georgia Institute of Technology), Joseph Gavin (Gulfstream Aerospace Corp)

Numerical Investigation of Jet Installation Noise for Chevron Nozzles
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Hussain Ali Abid, Annabel P Markesteijn, Sergey A Karabasov (Queen Mary University of London), Hasan Kamliya Jawahar, Mahdi Azarpeyvand (University of Bristol)

Effects of nozzle-lip thickness on the tones in the near-field pressure spectra and on the initial instability waves of jets
Wednesday, 14 June 14:40 - 15:00 (UTC-7) | Start:</strong
Christophe Bogey (Ecole Centrale de Lyon)

CFD-16 | In Person - Ocean Beach

A Comparison of LES Inlet Boundary Conditions for Supersonic Jet Flows
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Diego F. Abreu (Instituto Tecnologico de Aeronautica), Carlos A. Junqueira-Junior (Ecole Nationale Superieure d'Arts et Metiers), Eron T V Dauricio (Instituto Tecnologico de Aeronautica), João Luiz F Azevedo (Instituto de Aeronautica e Espaco)

Wall modeled large-eddy simulations of flow over the Sandia transonic hump
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Rahul Agrawal, Ahmed Elnahhas, Parviz Moin (Stanford University)

Subgrid modeling using deep neural networks for simulation of smooth and rough turbulent channel flows
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Amin Amiri, Eli Durant, Reetesh Ranjan (The University of Tennessee at Chattanooga)

Simulated Acoustics of a Solid Fuel Ramjet
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Charles R Arnold, Henry Pace, Luca Massa (Virginia Polytechnic Institute and State University)

Combustor-Turbine Interactions by Using the Open National Combustion Code (OpenNCC) and the Glenn-HT Code
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Kenji Miki, Ali Ameri, Thomas Wey, Jeffrey P Moder, Mark Celestina (NASA)

UAS-07 | In Person - Cortez Hill C

Fuzzy Logic and Mahalanobis Distance Algorithms for Fault Detection in Fixed Wing UAVs
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Ruth Gomez Quezada, Huan Xu, Lina Castano (University of Maryland at College Park)

Robust trajectory planning for multi-rotor aerial vehicles subject to saturation faults and wind disturbances
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Marcos Quinones-Grueiro, Ibrahim Ahmed, Gautam Biswas (Vanderbilt University)

A Rotorcraft Validation Framework using an EKF-based Parameter Estimation Approach
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Marvin Jesse (Purdue University), Nirmit Prabhakar, Dominik Karbowski (Argonne National Laboratory)

Real Time Optimal Trajectory Synthesis for an Unmanned Aerial Vehicle in Urban Air Mobility Applications
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Bilge Kacmaz, Ranjan Vepa (Queen Mary University of London)

ACD-13/MDO-11 | In Person - Balboa A

Quantitative Validation of Flight Crew Response to a Failure Condition Using a Bayesian Network and Elicited Probabilities
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Brendan Fontes (Honeywell Aerospace)

Computationally Efficient Analysis and Sizing of Unconventional Wing Geometries Subjected to Dynamic Loads
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Heriberto D Solano (Georgia Institute of Technology College of Engineering), Darshan Sarojini (University of California San Diego), Dimitri N Mavris (Georgia Institute of Technology College of Engineering)

(continued) ACD-13/MDO-11 | In Person - Balboa A

Multi-Disciplinary Analysis and Optimization of a Transonic Wing

Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong

Benjamin Markus Duda (Dassault Systemes Deutschland GmbH), Michael Sacks (Dassault Systemes Americas Corp), Francisco Javier Flores Alvarenga (Dassault Systemes SE), Gregory Michael Laskowski (Dassault Systemes Americas Corp)

Deep Learning Based Transonic Flutter Prediction Model for Multidisciplinary Design Optimization of Medium Range Truss Braced Wing Aircraft

Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong

Kamrul Hasan Khan, Rakesh K Kapania, Joseph A Schetz (Virginia Polytechnic Institute and State University)

MDO-13 | In Person - Old Town A

CubeSat Swarm Mission Design Optimization with Application to a Virtual Telescope Mission

Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong

Victor Evan Gandarillas, John T Hwang (University of California San Diego)

Thermodynamic Conceptual Design and Optimization of a Scramjet

Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong

Dario Rodriguez, James T Allison (University of Illinois Urbana-Champaign), Yong Hong Lee (The University of Memphis), Jonathan Freund (University of Illinois Urbana-Champaign)

Simplified Modeling of Topology-Optimized Compliant Mechanism for Multi-Fidelity Integration in Morphing Wings

Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong

Fabian Sturm (Technical University of Munich, Chair of Aircraft Design), Erich Wehrle (Collins Aerospace, Applied Research & Technology), Mirko Hornung (Technical University of Munich, Chair of Aircraft Design)

Evaluation of Multi-Fidelity Approaches with Active Learning for Automated Database Generation

Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong

Kevin R Quinlan, Jagadeesh Movva (Lawrence Livermore National Laboratory), Bradley T Burchett, Joseph D Vasile (U.S. Army Combat Capabilities Development Command - Army Research Laboratory), Daniel Driver, Jack Acton (Lawrence Livermore National Laboratory)

Application of Multi-fidelity Gaussian Process Regression to Surrogate-based Robust Design of Hypersonic Vehicles

Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong

Jacob T Needels, Juan J Alonso (Stanford University)

EATS-07 | In Person - Gaslamp C

ATS-10 | In Person - Balboa B

In-time Safety Management Capabilities for Wildland Fire Management Aircraft Operations - A Gap Assessment

Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong

Patricia Revolinsky, Evan T Dill, Steven D Young, Ersin Ancel (NASA Langley Research Center)

Probabilistic Evaluation for Flight Mission Feasibility of A Small Octocopter in the Presence of Wind

Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong

Abenezer Taye, Ellis L Thompson, Peng Wei (The George Washington University School of Engineering and Applied Science), Timothy Bonin, James C Jones (Massachusetts Institute of Technology Lincoln Laboratory)

An In-time Aviation Safety Management System (IASMS) Concept of Operations for Vertiport Design and Operations

Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong

Kyle KE Ellis, Lawrence J Prinzel (National Aeronautics and Space Administration, Langley Research Center), Misty D Davies, Jeffrey Homola (National Aeronautics and Space Administration Ames Research Center), Louis Glaab (National Aeronautics and Space Administration, Langley Research Center), Paul Krois (Crown Consulting), Nikunj Oza, Robert Mah (National Aeronautics and Space Administration Ames Research Center), Chad L. Stephens, Michael Vincent (National Aeronautics and Space Administration, Langley Research Center), James Ackerson (Flight Research Aerospace), Samantha I Infeld (Analytical Mechanics Associates)

Learning-Based Separation Assurance with Decentralized Shielding for Advanced Air Mobility

Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong

Marc W Brittain (Massachusetts Institute of Technology Lincoln Laboratory), Jesse Quattrociocchi (The University of Texas at Austin), Wei Guo (The George Washington University), Steven Carr (The University of Texas at Austin), Yue Li, Peng Wei (The George Washington University), Ufuk Topcu (The University of Texas at Austin)

Development and testing of Supplemental Data Service Provider (SDSP) interface tools to support system-wide safety in UAS Traffic Management (UTM)

Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong

Jolene Feldman, Lynne Martin (NASA Ames Research Center), Vimmy Gujral (San Jose State University), Charles Walter (ASRC Federal Data Solutions), Patricia Revolinsky (NASA Langley Research Center), Dorrit Billman (NASA Ames Research Center)

(continued) ATS-10 | In Person - Balboa B

Wind Tunnel Testing of Static Aerodynamic and Power Consumption Characteristics of an Octocopter
Wednesday, 14 June 14:40 - 15:00 (UTC-7) | Start:</strong
George Altamirano, Justin J Matt, Ronald C. Busan, John V. Foster (NASA Langley Research Center)

ATM-04 | In Person - Balboa C

Flying high: Comparing the concepts for higher airspace operations in the U.S. and Europe
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Ruth Stilwell (Aerospace Policy Solutions, LLC)

Operational Safety Areas Explored for Supersonic Transport Aircraft in one-engine inoperative Situations
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Kevin-Christian Garzon Galindo (San Jose State University Research Foundation), Min Xue (NASA Ames Research Center), Abraham K Ishihara (KBR Wyle Services LLC)

High Altitude Platform Station Market Potential Enabled by Upper Class E Traffic Management
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Ruth Stilwell (Aerospace Policy Solutions, LLC), William Spitz (GRA, Inc.), George Price (Crown Consulting, Inc.), Jeffrey Homola (NASA Ames Research Center)

Simulating the use of Dynamic Airspace Reconfiguration to Support Integrated Crewed and Uncrewed Aircraft Operations
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Álvaro Sainz Carreño, Ana Pariente Concejo, Jose Antonio Tena Diaz (Airbus Group SE), Antony D Evans, Apurva Anand (Acubed by Airbus)

The Impact of STA Conformance Error and Variation of Target TRACON Delay on Arrival Throughput during TBFM Metering
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Steven C Lent (Mosaic ATM, Inc.)

PDL-04 | In Person - Promenade B

Characteristics of Radiative Heating in Mars Entry Flight with Magnetohydrodynamic Flow Control
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Kotaro Tabuchi, Takayasu Fujino (Tsukuba Daigaku)

Extended Control of Shock Wave Reflection by Long Q-DC Electrical Discharge
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Philip S Andrews, Philip Lax, Sergey B Leonov (University of Notre Dame College of Engineering)

Trichel-like Pulses in Negative Corona Discharge Under a Supersonic Flow
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Guillaume Dufour (ONERA Traitement de l'information et systemes), Konstantinos Kourtzanidis (CERTH - Centre for Research and Technology Hellas), François Rogier (ONERA Traitement de l'information et systemes)

Combined and simulatenous electro-optical diagnostics for oscillatory plasma discharges
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Saskia Pasch (Karlsruher Institut fur Technologie), Tom Friedlender (Universite de Poitiers), Marc Tobias Hehner (Karlsruher Institut fur Technologie), Nicolas Benard (Universite de Poitiers), Jochen Kriegseis (Karlsruher Institut fur Technologie)

Dual-Mode Energy Deposition for Hypersonic Aerodynamic Control
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Kyle T Ruggles, Richard Miles, Nathan R Tichenor (Texas A&M University System), Christopher Limbach (University of Michigan)

Nanosecond Dielectric Barrier Discharge Aircraft Ice Protection System
Wednesday, 14 June 14:40 - 15:00 (UTC-7) | Start:</strong
Andrey Starikovskiy (Princeton University), Nickolay Aleksandrov (Nacional'nyj issledovatel'skij universitet Vyssaa skola ekonomiki), Manny Rios (Federal Aviation Administration)

AA-36 | In Person - Harbor A

Quadrupole-Enhanced Overset Noise Predictions for Counter-Rotating Open Rotors
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Enrico Fabiano, Andrew Kirby, Zhi Yang, Dimitri J Mavriplis (Scientific Simulations LLC)

Simulation of Tonal and Broadband UAM Propulsor Noise using Volume Resolving CAA Method on Hierarchial Cartesian Grid
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Seyed Mohsen Alavi Moghadam, Roland Ewert, Jan Delfs (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Large-eddy simulations of multi-bladed VTOL rotors for air vehicle aeroacoustic predictions
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Guillaume A Brès, Christopher B Ivey, David A Philips, Sanjeeb Bose (Cascade Technologies Inc), Minoru Teramura, Tsuyoshi Moriya (Honda R & D Co Ltd Innovative Research Excellence), Kei Ambo (Honda Motor Co Ltd Automobile Operations Monozukuri Center)

(continued) AA-36 | In Person - Harbor A

Fast Prediction of Impingement and Scattering Effects in Installed Propeller Configurations
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Maks J Groom (Massachusetts Institute of Technology), Shaun F Pullin, Beckett Yx Zhou (University of Bristol), Qiqi Wang (Massachusetts Institute of Technology)

APA-30 | In Person - Hillcrest A

Frequency Domain Method for Dynamic Control Derivative Estimation with Application to Transonic Truss-Braced Wing
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Nhan T Nguyen (NASA Ames Research Center), Juntao Xiong (KBR Wyle)

Analysis of Flow Past an Aircraft at High Angle of Attack based on Mode Decomposition
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Hui Wan (University of Colorado Colorado Springs), Mehdi Ghoreyshi, Jurgen Seidel (U.S. Air Force Academy)

Nonlinear Low-Dimensional Model Order Reduction with Subspace Interpolation for Gust Applications with the Linear Frequency Domain Approach
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Markus Widhalm, Philipp Bekemeyer (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Including Steady State Information in Reduced Order Modelling for Tiltrotor Aircraft Stability Analysis
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Peter Edwin Bath, Ann Gaitonde, Dorian P Jones (University of Bristol)

Aerodynamic Influence Coefficients from the Unsteady Transonic Small Disturbance Equation for Aeroelastic Analysis
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Edward Szwabowski, Myles Baker (M4 Engineering Inc.)

ATS-11 | In Person - Harbor D

Identifying, Visualizing and Communicating Constraints in Instrument Flight Procedure Design
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Sandro Salgueiro, R John Hansman (Massachusetts Institute of Technology)

A Comparative Analysis of Terminal Area Navigation and Conventional Standard Arrival Routes with Cellular Automata
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Ikeoluwa Ireoluwa Ogedengbe (The Hong Kong University of Science and Technology Interdisciplinary Programs Office), Michael K. Y. Wong (The Hong Kong University of Science and Technology School of Science), Rhea P Liem (The Hong Kong University of Science and Technology School of Engineering)

Strategic Conflict Management with Automatic Trajectory Options Generation for Advanced Air Mobility Operations.
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Wallace Silva Sant' Anna Souza, Mayara Conde Rocha Murca (Instituto Tecnologico de Aeronautica)

Initial Analysis of Reduced Vectoring Through Metering at Tokyo International Airport
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Adriana Andreeva-Mori (Japan Aerospace Exploration Agency)

Understanding the Entry Conditions for a Comprehensive Performance Assessment of Terminal Areas
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Tatiana Polishchuk, Lucie Smetanová (Linkopings universitet), Karim Zeghal (EUROCONTROL Experimental Centre)

GT-06 | In Person - Promenade A

A good choice: Why the National Aerospace Laboratory NLR in The Netherlands purchased 18 Task balances in the late 50-ies.
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Bram Elsenaar (Heritage Foundation NLR)

Six-Component TASK Balance Measurements for Projectile Aerodynamics Validation and Complementary Methods
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Friedrich Leopold, Sebastian Michalski, Bernd Dutschke, Alina Mielke, Daniel Klatt, Robert Hruschka (French-German Research Institute of Saint-Louis, ISL)

Analysis and Evaluation of NASA's MK40B Six-Component TASK Balance
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Norbert M Ulbrich (Jacobs Technology Inc.)

FD-24 | In Person - Mission Beach A

A new coarsening strategy of multicloud convergence acceleration for cell finite volume schemes
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Jae Sang Rhee, JunSeok Oh, KyuHong Kim (Seoul National University)

Data-Driven Hydrodynamic Analysis and Design of Ship Hullform Shape
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Wontae Hwang, Seongim Choi (Gwangju Institute of Science and Technology)

Natural Transition in High-Speed Boundary-Layer Flow – an overview
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Ray-Sing Lin, Sol Keun Jee (Gwangju Institute of Science and Technology)

Simulation-driven design optimization for a submersible float with wings
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Susmit S Joshi, Seongim Choi (Virginia Polytechnic Institute and State University)

APA-31 | In Person - Hillcrest D

History and Status of the CDISC Aerodynamic Design Method
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Richard L Campbell, Michelle N Banchy, Brett R Hiller (NASA Langley Research Center)

Design of a Low Boom Concept with Natural Laminar Flow using CDISC
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Michael D Bozeman, Richard L Campbell, Michelle N Banchy (NASA Langley Research Center)

Design of Natural Laminar Flow Components for the SUSAN Aircraft
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Brent W Pomeroy, Michelle N Banchy, Richard L Campbell, Brett R Hiller (NASA Langley Research Center)

Design of a Transonic Cruise Slotted Wing with Natural Laminar Flow for Commercial Transport Aircraft
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Brett R Hiller, Richard L Campbell, Michelle N Banchy (NASA Langley Research Center)

CDISC Remote Design Method to Simulate Aircraft Interference Effects for the CATNLF Flight Test
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Michelle N Banchy, Richard L Campbell, Brett R Hiller, Michael D Bozeman (NASA Langley Research Center)

FD-22 | In Person - Mission Beach C

Transients of Shear-layer Oscillation in Cavity Flow in Response to Unsteady Actuation
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Md Rashidul Islam, Yiyang Sun (Syracuse University)

Effect of Small Rectangular Bumps on the Amplification of Tollmien-Schlichting Waves
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Fernando Henrique Tadashi Himeno, Ana Elisa Basilio de Carvalho, Marcello A. F. Medeiros (Universidade de Sao Paulo Escola de Engenharia de Sao Carlos)

Gap induced boundary layer transition
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Victor B Victorino, Felipe O Aguirre, Marcello A. F. Medeiros (Universidade de Sao Paulo Escola de Engenharia de Sao Carlos)

Mitigation of Airfoil Boundary-Layer Transition due to Leading-Edge Roughness Using Shielding Strips
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Ezequiel Justiniano, Edward B White (Texas A&M University), Saikishan Suryanarayanan (University of Akron), David B Goldstein (The University of Texas at Austin)

Effects of Random Micron-Sized Roughness on Swept-Wing Transition
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Jenna L Eppink (NASA Langley Research Center)

UAS-08 | In Person - La Jolla B

Unmanned Aerial Vehicles: A 21st Century Review of Advanced Air Mobility Platforms
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Olabode A Olanipekun, Carlos J Montalvo (University of South Alabama), Tajudeen Abiola Ogunniyi Salau, Emmanuel Oluwafunbi Simolowo (University of Ibadan)

Increasing the Aerodynamic Performance of a Small Flying Wing UAV Using Passive Bio-inspired Microfibers
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Dioser Dos Santos (Texas Tech University), Ali Doosttalab (Flow Raider LLC), Victor Maldonado (Texas Tech University)

(continued) UAS-08 | In Person - La Jolla B

Examining Sustainability Practices for UAS
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Ashley Anderson, Alyssa S Avery (Oklahoma State University)

A Framework for Developing Robust, Autonomous, Power Managed Dynamic Soaring Flight Controllers Using Deep Reinforcement Learning
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Milo F DiPaola, Tyler F Barkin (MEMA)

Learning Constrained Corner Node Trajectories of a Tether Net System for Space Debris Capture
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Feng Liu, Achira Boonrath, Salvatore Guadagna, Eleonora M Botta, Souma Chowdhury (University at Buffalo)

EATS-06 | In Person - Gaslamp A

NASA Advanced Reconfigurable Electrified Aircraft Laboratory (AREAL)
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
David J Sadey, Linda Taylor, Patrick Hanlon, Keith Hunker, Casey Theman, Xavier Collazo-Fernandez, Nuha S. Nawash, Trey Rupp, Brian Malone, Henry Fain, Greg Kimnach, Paul Nowak, Mark Valco, Timothy Dever (NASA John H Glenn Research Center), Alan Revilock (Jacobs Technology)

Real-Time Verification of A Battery Slave Controller Developed Using a DO-178C/DO-331 Based Process-Oriented Build Tool
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Purav Panchal, Wolfgang Bliemetsrieder, Nina Sorokina, Stephan Myschik (Universität der Bundeswehr München)

Applications of an MBSE Regulatory Framework to Electrified Aircraft
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Taylor M Fields, Stephen Glinski, Evan Harrison, Mayank V. Bendarkar, Archana Tikayat Ray, Elena Garcia, Dimitri N Mavris (Georgia Institute of Technology)

The design and evaluation of a 180-kW Turboelectric Aircraft Ground Test Rig
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Joshua P Johnsen, Joshua Drake, Joshua Melvin, Kurt P Rouser (Oklahoma State University)

Fiber Optic Sensor Measurements on High Power Electric Propulsion Unit for Aerospace Applications
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Gaetano Roggia (magniX), Chris Westcott (Luna Innovations Inc)

SR-02 | In Person - Bankers Hill

The Stepped Helix Hybrid Rocket Engine
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Christopher Glaser, Jouke Hijlkema, Jean-Yves Lestrade (ONERA Le Fauga-Mauzac), Jerome Anthoine (ONERA Toulouse)

Dual-Zone Temperature and Multi-Species Measurements in Solid-Propellant Flames via Broadband Mid-Infrared Laser Absorption Spectroscopy
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Vishnu Radhakrishna, Kyle E. Uhlenhake, Steven F. Son, Christopher S Goldenstein (Purdue University)

Combustion Characteristics of Solid Polymer Electrolytes with Conductive Additives
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Sean Whalen, Bradley Gobin, Gregory Young (Virginia Polytechnic Institute and State University)

Simulation of Liquefying Propellants with Swirl
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Brian A Maicke (Penn State Harrisburg)

Rapidly Depoyable, Low-Cost Hypersonic Rocket Optimization and Design
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Jacob Reddington, Matt Young, Nathaniel Miseli, Josiah R Gibson, Jack Galante, Jacob Corsaro, Edwin Jang, Justin Mcstay, D'Anthony brown, Bridget Ge (United States Military Academy at West Point)

AA-37 | In Person - Torrey Hills A

Improved core noise prediction method for short-cowl engines
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Deepak C Akiwate, Brian J Tester, Edward Richardson, Phillip Joseph (University of Southampton), Stefan Funke (Rolls-Royce Deutschland Ltd und Co KG)

(continued) AA-37 | In Person - Torrey Hills A

On the noise analysis of a N+3 next-generation combustor through LES
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Davy J.E. Brouzet, Matthias Ihme (Stanford University), Duane C McCormick, Craig Aaron Reimann, Jeff M Mendoza (Raytheon Technologies Research Center)

Combustion composition noise mechanism analysis
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Yann Yann Gentil, Guillaume Daviller (CERFACS), Stéphane Moreau (Universite de Sherbrooke), Thierry Poinsot (CERFACS)

FD-25 | In Person - Mission Beach B

Wall-Resolved Large-Eddy Simulation of Flow over a Parametric Set of Gaussian Bumps
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Donald P Rizzetta, Daniel J Garmann (Air Force Research Laboratory)

Analysis of adverse pressure gradient effects in the boundary layer of a NACA0012 airfoil at high angles of attack
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Leandro J. Silva, William Wolf (University of Campinas)

Investigation of Low Frequency Unsteadiness in the Turbulent Separation Bubble Produced by a Wall Mounted Hump
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Korcan Dau, David Borgmann, Jesse C Little (The University of Arizona), Julien Weiss (Technische Universitat Berlin)

Coupled Response of a Supersonic Turbulent Boundary Layer and a Compliant Clamped-Free-Clamped-Free Panel
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Scott J Peltier, Autumn Garner, Christopher Clifford (Air Force Research Laboratory Aerospace Systems Directorate), Garrett Jones (Axient LLC), Ricardo Perez (Air Force Research Laboratory Aerospace Systems Directorate), Daniel Archer Reasor, Thomas Mason (Air Force Research Laboratory Munitions Directorate)

Simulation of High-Speed Flows over an Expansion-Compression Corner Using Large Eddy Simulation
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Nadia Kianvashrad, Doyle D Knight (Rutgers The State University of New Jersey)

FD-23 | In Person - Solana Beach B

Compressibility Effects on Aerodynamic Characteristics and Flow Fields of Mars Helicopter Rotor
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Kota Yoshikawa, Yuta Buto, Makoto Sato (Kogakuin Daigaku), Akira Oyama (Uchu Koku Kenkyu Kaihatsu Kiko Uchu Kagaku Kenkyujo), Masahiko Sugiura, Yasutada Tanabe, Keita Kimura (Uchu Koku Kenkyu Kaihatsu Kiko), Kuniyuki Takekawa (Ryoyu Systems Co. Ltd.), Yuki Kishi, Masahiro Kanazaki (Tokyo Toritsu Daigaku)

Structure of the Compressible Laminar Separation Bubble on a Stationary Airfoil
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Miguel R Visbal, Daniel J Garmann (Air Force Research Laboratory)

Towards Resolving Natural Shock Oscillation and Mitigation of Altitude Excitation in a Transonic Fan
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Philipp L Nel (Rolls-Royce Deutschland Ltd und Co KG), Sergio Pirozzoli (Universita degli Studi di Roma La Sapienza), Marius Swoboda, Patrick Grothe (Rolls-Royce Deutschland Ltd und Co KG), Julien Weiss (Technische Universitat Berlin)

Computational Analysis of Swept Wing Dynamic Response to Unsteady Inputs in Angle of Attack
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Patrick J Brandt, Jeffrey P Bons (The Ohio State University)

Wake-Structrue of the Prandtl-D
Wednesday, 14 June 14:20 - 14:40 (UTC-7) | Start:</strong
Patrick R Hammer, Daniel J Garmann (Air Force Research Laboratory)

FD-26 | In Person - Pier

Data Driven Methodology for Decoupled Aircraft Wake Vortex Propagation Using Proper Orthogonal Decomposition
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Scott Bennie, Peter Nagy, Marco Fossati (University of Strathclyde)

Compressible Beltramian Flowfield Formulation for Hemispherical Rocket Engines
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Daniel S Little, Joseph Majdalani (Auburn University)

Comparison of Wind Tunnel Vortex Survey Results with the n-Vortex Model
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Aaron Douglas Kuenn, Linda K Kliment (Wichita State University)

(continued) FD-26 | In Person - Pier

Low-order modeling of airfoils encountering transverse gusts
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Yi Tsung Lee, Nitin Chitrala (NC State University), Arun Vishnu Suresh Babu (UNC Charlotte), Ashok Gopalarathnam (NC State University)

TF-11/EATS-08/GA-06 | In Person - Harbor E

X-57 Systems Engineering Lessons Learned
Wednesday, 14 June 13:00 - 13:20 (UTC-7) | Start:</strong
Laura Kathryn Kushner, Ted Holtz (NASA Langley Research Center)

Development of the Mod II X-57 Piloted Simulator and Flying Qualities Predictions
Wednesday, 14 June 13:20 - 13:40 (UTC-7) | Start:</strong
Ryan D Wallace, James Reynolds, J. Dana Mcminn, Michael Frederick, Nicholas K Borer, David cox (NASA)

X-57 Cockpit Display System Development and Features
Wednesday, 14 June 13:40 - 14:00 (UTC-7) | Start:</strong
Sean C Clarke, Adam Curry, Aamod Samuel (NASA Armstrong Flight Research Center)

X-57 Electromagnetic Interference Design, Integration, and Test Considerations
Wednesday, 14 June 14:00 - 14:20 (UTC-7) | Start:</strong
Sean C Clarke (NASA Armstrong Flight Research Center), David Avanesian, Michael Garrett, Matthew G Granger (NASA John H Glenn Research Center), Philip Hamory, Adam Curry (NASA Armstrong Flight Research Center)

15:30 | Technical Paper Session

16:00 | Technical Paper Session

EATS-10 | In Person - Gaslamp B

MOTIVATION (Mdao fOr susTaInable aViATION) - Framework development for the design and optimization of hybrid electric-H2 powered aircraft
Wednesday, 14 June 16:00 - 16:20 (UTC-7) | Start:</strong
Raúl Quibén Figueroa, Rauno Cavallaro, Andrea Cini, Manuel Soler Arnedo (Universidad Carlos III de Madrid)

A Feasibility Calculation Framework for Beam Powered Aircraft
Wednesday, 14 June 16:20 - 16:40 (UTC-7) | Start:</strong
Ethan Wright, Daniel A DeLaurentis (Purdue University)

Landing Gear Drive System for All-Electric and High-Efficiency Ground Operations of Aircraft
Wednesday, 14 June 16:40 - 17:00 (UTC-7) | Start:</strong
Jakub Deja, Iman Dayyani, Martin Skote (Cranfield University Cranfield School of Aerospace Transport and Manufacturing)

EATS-11 | In Person - Gaslamp C

Modelling surface discharge inception field as an innovative tool to design insulation system for electrical aircrafts
Wednesday, 14 June 16:00 - 16:20 (UTC-7) | Start:</strong
Gian Carlo Montanari, Qichen Yang, Pasquale Cambareri, Debasish Nath (Florida State University)

A solid state circuit breaker for hybrid electric propulsion
Wednesday, 14 June 16:20 - 16:40 (UTC-7) | Start:</strong
Di Zhang, Yuntao Xu (Naval Postgraduate School), zheyu zhang (Clemson University), dong dong (Virginia Polytechnic Institute and State University), Yang Cao (University of Connecticut), Patrick mcginnis (Naval Sea Systems Command), Brandon Keck (Naval Postgraduate School)

Tools for partial discharge and health condition inference in aircraft and aerospace electrical asset components
Wednesday, 14 June 16:40 - 17:00 (UTC-7) | Start:</strong
Qichen Yang, Riddhi Ghosh, Debasish Nath, Gian Carlo Montanari (Florida State University)

Flight Simulator Demonstration of Powertrain Failure Mitigation in a Partial Turboelectric Aircraft
Wednesday, 14 June 17:00 - 17:20 (UTC-7) | Start:</strong
Jonathan S Litt, Jonah J. Sachs-Wetstone, Donald L Simon (NASA Glenn Research Center), T. Shane Sowers, A. Karl Owen, Mark E. Bell (HX5, LLC), Brenden E. Guthrie, Julian Lehan, Amado Castro (NASA Glenn Research Center)

EATS-12 | In Person - Harbor I

Technology Demonstration of a Megawatt-Class Integrated Motor Drive for Aircraft Propulsion

Wednesday, 14 June 16:00 - 16:20 (UTC-7) | Start:</strong

Yuankang Chen, Zoltán S. Spakovszky, Edward M Greitzer, Zachary C Cordero, Jeffrey H. Lang, James L. Kirtley, David J. Perreault, Henry N Andersen, Mohammad M Qasim, David Gonzalez Cuadrado, David M. Otten (Massachusetts Institute of Technology), Marc Amato (Innova-Logic LLC)

High Specific Power Permanent Magnet Synchronous Machine for a Megawatt-Class Integrated Motor Drive Technology Demonstrator

Wednesday, 14 June 16:20 - 16:40 (UTC-7) | Start:</strong

Henry Andersen, Zoltán S. Spakovszky, Edward M Greitzer, Jeffrey H. Lang, James L. Kirtley (Massachusetts Institute of Technology)

Novel Channel-type Heat Exchanger for a Megawatt-Class Integrated Motor Drive Technology Demonstrator

Wednesday, 14 June 16:40 - 17:00 (UTC-7) | Start:</strong

Yuankang Chen, Zoltán S. Spakovszky, Edward M Greitzer, Zachary C Cordero, David Gonzalez Cuadrado, Charlotte H Gump (Massachusetts Institute of Technology), Marc Amato (Innova-Logic LLC)

High Speed Rotor System for a Megawatt-Class Integrated Motor Drive Technology Demonstrator

Wednesday, 14 June 17:00 - 17:20 (UTC-7) | Start:</strong

Yuankang Chen, Zoltán S. Spakovszky, Edward M Greitzer, Zachary C Cordero, David Gonzalez Cuadrado (Massachusetts Institute of Technology), Marc Amato (Innova-Logic LLC)

Design and Optimization of an Inverter for a One-Megawatt Ultra-Light Motor Drive

Wednesday, 14 June 17:20 - 17:40 (UTC-7) | Start:</strong

Mohammad M Qasim, David M. Otten, Zoltán S. Spakovszky, Jeffrey H. Lang, James L. Kirtley, David J. Perreault (Massachusetts Institute of Technology)

17:30 | Special Programming

AA-60 | In Person - Grand Hall A-C

TP-20 | In Person - Harbor B

Thursday, 15 June

09:30 | Technical Workshop

TF-14/EATS-17/GA-07 | In Person - Harbor F

Tuning of Cruise Motors and Motor Controllers Utilizing Frank Inverter Architecture
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Clayton Green, Brad Conn, Alexander Bugrov (Empirical Systems Aerospace, Inc.)

Performance Evaluation of an 80kW Electric Propulsion Motor and Inverter System for NASA's X-57 Maxwell Flight Demonstrator
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Clayton Green, Brad Conn (Empirical Systems Aerospace, Inc.)

Testing of X-57 Maxwell's 80kW Electric Propulsion System and Challenges in Certification for Airworthiness
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Clayton Green, Brad Conn, Alexander Bugrov (Empirical Systems Aerospace, Inc.)

Cruise Propulsion System Thermal Analysis for NASA's X-57 "Maxwell" Mod II Configuration
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Nicholas K Borer, Trong Bui, Andrew Smith (NASA)

X-57 Cruise Motor Controller Design and Testing
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Sean C Clarke (NASA Armstrong Flight Research Center), David Avanesian (NASA John H Glenn Research Center), Jacob Terry (NASA Armstrong Flight Research Center), Susanah Kowalewski (NASA John H Glenn Research Center)

AA-39 | In Person - Cortez Hill C

Improving aeroacoustic measurements in closed wind tunnel test sections with sound absorbing wall treatments
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Hugo Bento, Colin P Vandercreek, Francesco Avallone, Daniele Ragni, Pieter Sijtsma, Mirjam Snellen (Technische Universiteit Delft)

Design, Construction, and Characterisation of Dual Purpose Anechoic Wind Tunnel at the Technion
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Oksana Stalnov, Gal Doron (Technion Israel Institute of Technology)

Experimental Visualization of the Acoustic Field Inside a Lined Duct
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Yo Murata, Keishi Izumi, Koki Tanaka, Hirofumi Daiguji (Tokyo Daigaku), Junichi OKI, Tatsuya Ishii, Hideshi OINUMA (Uchu Koku Kenkyu Kaihatsu Kiko), Koji Okamoto, Masahito Akamine (Tokyo Daigaku)

APA-41 | In Person - Hillcrest B

Injection Duct Height Distribution Control for Co-Flow Jet Airfoil
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Yan Ren, Gecheng Zha (Coflow Jet, LLC)

Controlled Flow Interactions with a Flexible Wing Using Distributed Bleed Actuation
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Gabriel Peyredieu du Charlat (Georgia Institute of Technology), Luca De Beni, Massimo Ruzzene (University of Colorado Boulder), Ari Glezer (Georgia Institute of Technology)

Flow Field Analysis of Vortex Interactions on Multi-Swept Wing Configurations
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
CHRISTIAN PRESAS, Austin M Park, Casey P Fagley (US Air Force Academy)

Aerodynamic Characteristics of a NACA-0010 Airfoil with Rotating Micro-Cylinders
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Alejandro Carrizales (The University of Texas Rio Grande Valley), Cesar A Leos (University of Nebraska-Lincoln), Stephen Crown, Robert Freeman, Isaac Choutapalli (The University of Texas Rio Grande Valley)

Experimental Comparison of Flow Control techniques on Helicopter flight deck of Frigates
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Juan Carlos Matias-Garcia, Rafael Bardera (Instituto Nacional de Tecnica Aerospacial), Sebastián Franchini (Universidad Politecnica de Madrid), Estela Barroso Barderas (Instituto Nacional de Tecnica Aerospacial)

TP-14 | In Person - Golden Hill A

Validation Study of Backshell Convective Heating Predictions on Mars Entry Vehicles
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Andrew Hinkle, Brian R Hollis, Thomas K West (NASA Langley Research Center)

(continued) TP-14 | In Person - Golden Hill A

State-Specific Kinetic Modeling for Entry Flows in Hydrogen-Helium Atmospheres
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Alex T Carroll, Guillaume Blanquart (California Institute of Technology)

Materials Response Modeling of Pyrolysis Gases Flow Through Material with Thin Layers
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Hilmi Berk Gur, Christen E Setters, Rui Fu, Alexandre Martin (University of Kentucky)

Sensitivity Study on Ablation Model for Radiative Transfer in Hypersonic Flows
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Sung Min Jo, Vincent Le Maout, Alessandro Munafò, Marco Panesi (University of Illinois Urbana-Champaign)

AA-58 | In Person - La Jolla B

AA-41 | In Person - Cortez Hill B

An FW-H Based Prediction Model for the Landing Gear Wake-Flap Interaction Noise
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Yu Hou, David Angland (University of Southampton)

Landing Gear Noise Mitigation by a Porous Fairing
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Miro Gondrum, Matthias Meinke, Wolfgang Schroeder (Rheinisch-Westfalische Technische Hochschule Aachen Lehrstuhl fur Stromungslehre und Aerodynamisches Institut)

Numerical Simulations of a Landing Gear with Flow Through Fairings for Noise Mitigation
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Marc Terracol, Eric Manoha (Office National d'Etudes et de Recherches Aerospatiales), Francesco Avallone, Daniele Ragni, Alejandro Rubio Carpo (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Study on Side-edge Geometry of Porous-Plate for Reduction of Airframe Noise from Landing Gear
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Mitsuhiro Murayama, Kazuomi Yamamoto, Yasushi Ito, Takehisa Takaishi, Yuzuru Yokokawa (Uchu Koku Kenkyu Kaihatsu Kiko Honsha Chofu Kuko Uchu Center), Tohru Hirai, Kentaro Tanaka (Ryoyu Systems Co., Ltd.)

Experimental investigation of Reynolds number scaling on the aeroacoustics of a simple landing gear wheel
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Zoya Zlatanova Ivanova, David Angland (University of Southampton)

Characterization of Flow Through Porous Fairings via Stereoscopic Particle Image Velocimetry
Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
Erica Gallo, Riccardo Zamponi, Alessandro Zarri, Yakut Cansev Kucukosman, Christophe F Schram (Von Karman Institute For Fluid Dynamics)

ATS-13 | In Person - Balboa C

Influence of Airport Capacity Limitation Mitigation on Air Traffic Networks and Fuel Consumption
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Johannes Michelmann, Maria Mateo Guarch, Mirko Hornung (Technische Universitat Munchen)

Potential UAM demand forecast and analysis: application to Seoul metropolitan area
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Hyunsoo Kim, Kwanjung Yee (Seoul National University)

A method for correlating community noise complaints and overflight events on an individual basis
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Zhishen Wang, Kevin C Zimmer, R John Hansman (Massachusetts Institute of Technology)

Airport Scheduling and Operational Performance: A Clustering Analysis of Airport Response to COVID-19
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Osama Alsalous (CSSI, Inc.), Susan Hotle (Virginia Polytechnic Institute and State University)

CFD-20 | In Person - Solana Beach A

Numerical modeling and tunnel specific considerations for CFD model development of low-speed wind tunnels
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Máté Szoke, Aurelien Borgoltz, Nanyaporn Intaratep, Joshua Lim, William J Devenport (Virginia Polytechnic Institute and State University)

Aerodynamic Interactions in Formation Flight for Wake Vortex Surfing
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Jia Cheng Chan (University of Glasgow), Peng Cheng Wang (Singapore Institute of Technology), Henrik Hesse (University of Glasgow)

(continued) CFD-20 | In Person - Solana Beach A

Investigating the Generalization of Data-driven Turbulence Models for Turbomachinery Cascade Flows

Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Alexander Bleh, Marcel Matha (Deutsches Zentrum fur Luft- und Raumfahrt eV)

AA-40 | In Person - Cortez Hill A

The paper discusses the comparison between the results of a simplified method applicable in the Conceptual Design phase and CFD simulations for sonic boom analysis.

Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Samuele Graziani, Nicole Viola, Roberta Fusaro (Politecnico di Torino)

Toward Fully-Parabolic Prediction of Hypersonic Sonic Boom

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Christian B King, Sean Skowron, Steven A E Miller (University of Florida)

Sonic Boom generation using open source CFD approach

Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Antimo Glorioso (Universita degli Studi della Campania Luigi Vanvitelli Dipartimento di Ingegneria), Francesco Petrosino (Centro Italiano Ricerche Aerospaziali), Andrea Aprovitola (Universita degli Studi della Campania Luigi Vanvitelli Dipartimento di Ingegneria), Mattia Barbarino (Centro Italiano Ricerche Aerospaziali), Giuseppe Pezzella (Universita degli Studi della Campania Luigi Vanvitelli Dipartimento di Ingegneria)

Application and comparison of proposed SST noise certification regulations to a conceptual business aircraft

Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Michel Noeding, Lothar Bertsch, Jochen Kirz, Roland Ewert (Deutsches Zentrum fur Luft- und Raumfahrt eV), Jeffrey J. Berton (NASA)

System noise assessment of conceptual tube-and-wing and blended-wing-body aircraft designs

Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Felix Wienke, Lothar Bertsch (Deutsches Zentrum fur Luft- und Raumfahrt DLR Standort Gottingen), Michael Iwanitzki, Philip Balack, Jannik Häßy (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Noise and local pollutants of small aircraft: overview of simulation activities and of the first flight test within the DLR project L²INK

Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
Antje Feldhusen-Hoffmann, Lothar Bertsch, Michael Pott-Pollenske, Vincent Domogalla, Malte Kreienfeld, Nadine Doerge (Deutsches Zentrum fur Luft- und Raumfahrt eV)

PGC-02 | In Person - Cove

Detonation Propagation in Mixtures Undergoing Autoignition and Deflagration

Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Mason Stocke, John Hoke (Innovative Scientific Solutions, Inc.), Alexander Feleo (University of Michigan), Robert T Fievisohn (Air Force Research Laboratory)

Reactive Two-Phase Flow Modeling of Two-Dimensional Rotating Detonation Engine

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Hyejin Oh, Foluso Ladeinde (Stony Brook University)

Design and Optimization of High-Pressure Turbine Vanes for Rotating Detonation Combustors

Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Bayindir H Saracoglu, Senol Kupeli (Von Karman Institute For Fluid Dynamics)

LES Investigations of Hydrogen Fuelled Pulsed Detonation Engine

Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
George Bogdan Gherman, Andrei V Cojocea, Tudor Cuciuc, Ionut Porumbel (Romanian Research & Development Institute for Gas Turbines - COMOTI)

High-Fidelity CFD Modeling of Combustion Dynamics in a Full-Scale Non-Premixed Hydrogen-Air Rotating Detonation Engine Combustor+Diffuser+Stator Configuration

Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Pinaki Pal (Argonne National Laboratory), James Braun, Guillermo Paniagua, Venkat Athmanathan, Terrence R Meyer (Purdue University)

EATS-13 | In Person - Gaslamp B

Optimal Energy Management Strategies and Mission Profiles for a generic Hybrid Aircraft

Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Fabrizio Oliviero, Kilian Swannet (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Design Space Exploration of Battery Pack and Mission Profiles for Parallel Hybrid Gas-Electric Aircraft Applications

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Anna Anna Misley (The Ohio State University), Camron Call, Raju Mattikalli, Hubert Wong (The Boeing Company)

(continued) EATS-13 | In Person - Gaslamp B

Design Exploration of a Mild Hybrid Electrified Aircraft Propulsion Concept
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Zachary J Frederick, Thomas J Hallock, Thomas A Ozoroski (NASA Langley Research Center), Jeffryes W Chapman, Caroline A Kuhnle (NASA Glenn Research Center)

Simulation of sustainable powerplants for a commuter aircraft using forward-looking dynamic models
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Francesco Salucci, Nirmit Prabhakar, Dominik Karbowski (Argonne National Laboratory)

Feasibility studies on regional aircraft retrofit for hybrid electric powertrains
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Raúl Quibén Figueroa, Carlos Castello Mora, Andrea Cini, Rauno Cavallaro (Universidad Carlos III de Madrid)

EATS-33 | In Person - La Jolla A

MDO-14 | In Person - Old Town A

Simplifying Load and Displacement Transfer Scheme through Alternative Formulations of the Absolute Orientation Problem
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jan F Kiviaho (University of Dayton Research Institute), Eric M Collins (Mississippi State University Center for Advanced Vehicular Systems)

Semi-Autonomous Problem Formulation Space Search for High Dimensional Multiobjective Optimization
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Joseph Wagner, Danial Khatamsaz, Douglas L Allaire (Texas A&M University)

Efficient Acquisition Functions for Bayesian Optimization in the Presence of Hidden Constraints
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Ali Tfaily, Michael Kokkolaras (McGill University), Nathalie Bartoli (Office National d'Etudes et de Recherches Aerospatiales), Youssef Diouane (Polytechnique Montreal)

An evolutionary variant of Q-learning applied to derivative-free optimization
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Isabella Vulpio, Lorenzo Burghignoli, Giorgio Palma, Umberto Iemma (University of Roma Tre), Andrea Serani, Matteo Diez (CNR-INM, National Research Council-Institute of Marine Engineering)

An adaptive SQP algorithm based on a hybrid multidisciplinary design optimization architecture
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Anugrah Jo Joshy, John T Hwang (University of California San Diego Jacobs School of Engineering)

FD-28 | In Person - Mission Beach A

Control Surfaces for Supersonic Airfoil Using Co-flow Jet Active Flow Control
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Zhijin Lei, Gecheng Zha (University of Miami)

Supersonic Cavity-Flow Control Using High-Frequency Flapping Jets Discharged from Fluidic-Oscillator Device
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Yoshinori Oka, Yuta Ozawa (Tohoku Daigaku), Taro Handa (Toyota Kogyo Daigaku), Taku Nonomura (Tohoku Daigaku)

Forced Control of SWBLI in a 24deg Compression Ramp Flow with Air-jet Vortex-generator
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Robin Sebastian, Anne-Marie Schreyer (Rheinisch-Westfalische Technische Hochschule Aachen)

Velocity and Vorticity Fields of a High-frequency Pulsed Supersonic Co-Axial Injector
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
John T Solomon (Tuskegee University), Phillip A Kreth (The University of Tennessee Space Institute), Rhys Lockyer, Uriah Philip (Tuskegee University)

Characterization of a High-Frequency Pulsed Supersonic Co-Axial Injector with FLEET Velocimetry and FLDI
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Jacob E Jenkins, Farhan Siddiqui, Mark Gragston, Phillip A Kreth (The University of Tennessee Space Institute), John T Solomon (Tuskegee University)

TP-15 | In Person - Golden Hill B

An Experimental Study to Compare the Effectiveness of Superhydrophobic Coating and Icephobic Coating for Aircraft Icing Mitigation
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Haiyang Hu, Linchuan Tian, Chukwudum Eluchie, Haisha Sista, Hui Hu (Iowa State University)

(continued) TP-15 | In Person - Golden Hill B

Utilization of Pulsed Electrothermal Heating for Aircraft Icing Mitigation
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Kiran Digavalli, Chukwudum Eluchie, Haiyang Hu, Hui Hu (Iowa State University)

An Experimental Study to Explore the Feasibility of Using Graphene for Aircraft Anti-/De-icing
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Chukwudum Eluchie, Haiyang Hu, Zachary Johnson, Carmen Gomes, Jonathan Claussen, Hui Hu (Iowa State University)

Thermal Performance of Additively Manufactured Aircraft Structure Material with Geometric Voids
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Robert L McMasters (Virginia Military Institute), Ethan Schlussel (Virginia Polytechnic Institute and State University)

APA-40 | In Person - Hillcrest C

Coupled Fluid-Thermal Response in the Gap Region of a High-Speed Control Surface
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jon A Willems, Jack J McNamara (The Ohio State University), Daniel Archer Reasor (Air Force Research Laboratory Munitions Directorate)

Data-Driven Modelling of Aerothermodynamic Loads during Atmospheric Re-entry
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Julie Graham, Fábio Morgado, Marco Fossati (University of Strathclyde)

Quiet Flow Testing of Roughness Element Patterns for Hypersonic Instability and Transition Control at Mach-6
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Cassandra J Butler, Joseph S Jewell (Purdue University), Pedro Paredes (National Institute of Aerospace)

Investigation of Second-Mode Instability Attenuation Over Silicon-Carbide Coated Carbon Foam
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Samantha A Miller, Karl Jantze, Joel J Redmond, Carlo Scalo, Joseph S Jewell (Purdue University)

A Study on the Impact of Mesh Resolution and Diffusion Terms on Thermochemical Non-Equilibrium Flows
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Farney Coutinho Moreira (Instituto Tecnologico de Aeronautica), William Wolf (Universidade Estadual de Campinas), João Luiz F Azevedo (Instituto de Aeronautica e Espaco)

Experiments of Transpiration Cooling on Hypersonic Sharp Leading Edges
Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
Raghul Ravichandran, Luke J Doherty, Matthew McGilvray (University of Oxford)

FD-32 | In Person - Hillcrest A

Radiative heat flux measurements in the High Enthalpy Shock Tunnel Göttingen
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Divek Surujhlal, Alexander Wagner, Sebastian Karl, Jan Martinez Schramm (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Simultaneous Fluid and Structure Velocity Measurements in a Flapping Flag and Application of POD
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Vibhav Durgesh, Rodrigo Padilla (University of Idaho)

Time-Frequency Analysis of Traveling Crossflow for the HIFiRE-5 Elliptic Cone
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Clayton Kardas (CUBRC)

Best practices, procedures, and laser-induced plasma application examples in the context of aeroacoustic experiments
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Máté Szoke (Virginia Polytechnic Institute and State University), Christopher J Bahr (NASA Langley Research Center), Louis N Cattafesta (Illinois Institute of Technology), Karl-Stéphane Rossignol (Deutsches Zentrum fur Luft- und Raumfahrt eV), Hiroki Ura (Uchu Koku Kenkyu Kaihatsu Kiko Kenkyu Kaihatsu Bumon), Yang Zhang (Florida State University)

Hypersonic Transitional Boundary-Layer Profile using a Linear-Array FLDI
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Elizabeth Katherine Benitez, Timothy J Leger, Matthew W Tufts, Matthew P Borg (Air Force Research Laboratory Aerospace Systems Directorate), Jonathan L Hill (Air Force Institute of Technology)

Calibrated, MHz-Bandwidth, Dynamic Pressure Sensors for Quantitative Measurements in High-Speed Flows
Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
David A Mills, Chip Patterson, Philip Fournier, Alan Gurlaskie, James R Underbrink (Interdisciplinary Consulting Corporation (IC2)), Mark Sheplak (University of Florida)

VSTOL-03/TF-13 | In Person - Harbor I

Deflected Slipstream Airfoil for VTOL Hover Enabled by CoFlow Jet, Part I: Design and Simulation
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Gecheng Zha, Yan Ren (CoFlow Jet, LLC)

Generating Structural Weight Estimation Equations for a Category of UAM Aircraft
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Shaadi Sabeti, Thomas Nascenzi, Timothy Cuatt, Tyler F Winter (M4 Engineering Inc.), Marius L Ruh, Darshan Sarojini, John T Hwang (University of California San Diego)

Simulation of a Quadrotor Urban Air Taxi Hovering Above a Rooftop Edge
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Denis-Gabriel Caprace, Patricia Ventura Diaz, Steven Yoon (NASA Ames Research Center)

Control Stability Study of a Tailless High-Speed Tandem-Wing VTOL Vehicle Using CoFlow Jet
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Brendan McBreen, Jeremy S Boling, Yan Ren, Gecheng Zha (University of Miami)

Flettner-rotor-powered VTOL's theoretical performances
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Satoki Shimamune (University of Cambridge), Dmitry Ignatyev (Cranfield University)

AA-42 | In Person - Harbor B

Coherent Structure in a Rectangular Supersonic Jet and Its Role in Peak Noise Radiation
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Sam Salehian (Tuskegee University), Reda R Mankbadi, Benjamin J. Malczewski (Embry-Riddle Aeronautical University)

Large-Eddy Simulations of a Multifrequency Excited Supersonic Rectangular Jet
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Benjamin J Malczewski, Reda R Mankbadi (Embry-Riddle Aeronautical University), Sam Salehian (Tuskegee University)

Experimental investigations of installed jet noise emitted by rectangular and slanted nozzles
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Julien Christophe, Julien de Decker, Christophe F Schram (Von Karman Institute For Fluid Dynamics)

Plasma Actuation and Spectral Proper Orthogonal Decomposition of Supersonic Twin-Rectangular Jet Flow
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Brandon Yeung, Oliver Thomas Schmidt (University of California San Diego)

Flow-field and Acoustics of Azimuthally Forced Rectangular Jets
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Anirudh Lakshmi Narasimha Prasad, Unnikrishnan Sasidharan (Florida State University)

Acoustic Radiation from an Integrated High Aspect Ratio Rectangular Nozzle with Co-Flow
Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
Karl-Stéphane Rossignol (Deutsches Zentrum fur Luft- und Raumfahrt eV)

CFD-19 | In Person - Ocean Beach

Large Eddy Simulation of the Transonic NASA Common Research Model
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Konrad Goc, Rahul Agrawal, Parviz Moin (Stanford University), Sanjeeb Bose (Cascade Technologies Inc)

Analysis of Subgrid-Scale Closures For an Optimal Spectral Energy Transfer in Turbulent Flows
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Miralireza Nabavi, Jeonglae Kim (Arizona State University Ira A Fulton Schools of Engineering)

Accurate High-Order Wall-Modeled Large Eddy Simulation of the High-Lift Common Research Model
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Zhi Jian Wang (University of Kansas School of Engineering)

Assessment of Wall-Modeling for Large-Eddy Simulations of Separated Flows
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Matthew J Schwartz (Ohio Aerospace Institute), Daniel J Garmann (Air Force Research Laboratory)

FD-29 | In Person - Pier

Unsteady Aerodynamics and Wake Structures of Butterfly in Forward Flight
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Zhipeng Lou, Chengyu Li (Villanova University)

(continued) FD-29 | In Person - Pier

Numerical investigation of olfactory performance in upwind surging hawkmoth flight

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong

Seth Lionetti (Villanova University), Tyson L. Hedrick (The University of North Carolina at Chapel Hill), Chengyu Li (Villanova University)

Leading Edge Vortex Formation on a FlappingWing Robotic Bird

Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong

Luuk G Groot Koerkamp, Hendrik Willem Marie Hoeijmakers, Cornelis H. venner, Stefano Stramigioli (Universiteit Twente)

ATS-14 | In Person - Harbor D

Operationalizing Machine Learning Models for Strategic Planning

Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong

Christopher J. R. Lloyd, Kamala Shetty, Michael Albert, J. Marc Meekma (Federal Aviation Administration), Pradnya Chahande (GRA, Incorporated)

Integrating Separation Assurance and Collision Avoidance for Advanced Air Mobility

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong

Kara Breeden, Luis E Alvarez, Marc W Brittain (Massachusetts Institute of Technology Lincoln Laboratory)

A new approach to aircraft categorization using machine learning to analyze aircraft behaviour

Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong

Nicolas Vincent-Boulay, Catharine Marsden (Royal Military College of Canada)

Wind-Optimal Cruise Trajectory Optimization Using Reinforcement Learning

Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong

Chris HC. Nguyen, Ka Yiu Hui, Rhea P Liem (The Hong Kong University of Science and Technology)

DE-06 | In Person - Gaslamp A

Design and numerical-experimental validation of supports' equipment for VEGA-C launcher

Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong

Domenico Cristillo, Francesco Di Caprio (Centro Italiano Ricerche Aerospaziali), Giuseppe Petrone (Universita degli Studi di Napoli Federico II), Antonio Zallo (Avio s.p.a.)

Counter Optimization-Based Validation of Flight Control Law Monitoring

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong

Hannes Hofsäß, David Braun, Florian Holzapfel (Technische Universitat Munchen)

FD-31 | In Person - Mission Beach B

Theoretical Analyses of Drop Size in Impinging and Effervescent Liquid Jets

Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong

J.E. Park, Tae-Woo Lee (Arizona State University), Jan Jedelsky (Vysoke uceni technicke v Brne)

Numerical Simulation of the fogging System Location and Geometry on the Characteristics of Inlet Air to a Gas Turbine

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong

Mohammad Aref Babaei, Masoud Darbandi (Sharif University of Technology), G E Schneider (University of Waterloo)

On the equivalence of gas and liquid leak flow rates for application to propulsion and propellant transfer systems

Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong

Max Kandula (KBR), Brian M Nufer (NASA)

MDO-15 | In Person - Old Town B

Information reuse via kriging for robust design optimization

Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong

Bingran Wang, John T Hwang (University of California San Diego)

Sizing for Advanced Air Mobility under Uncertainty Environment

Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong

Daejin Lim, Kwanjung Yee (Seoul National University)

Parameter Estimation of nonlinear aeroelastic systems using Bayesian model updating and advanced Kriging surrogate model

Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong

Michael McGurk, Jie Yuan (University of Strathclyde)

Surrogate-Assisted Combined Design and Trajectory Optimization-Under-Uncertainty of Unmanned Aerial Systems

Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong

Jolan Wauters, Tom Lefebvre, Guillaume Crevecoeur (Universiteit Gent Faculteit Ingenieurswetenschappen en Architectuur)

(continued) MDO-15 | In Person - Old Town B

Development of a Parametric Drag Polar Approximation for Conceptual Design
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Barbara Sampaio Felix, Christian Perron, Jai Ahuja, Dimitri N Mavris (Georgia Institute of Technology)

PDL-05 | In Person - Promenade B

Demonstration of Dispersive Fourier Transform Spectroscopy in a shock tube facility
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Augustin Claude Tibère-Inglesse (Oak Ridge Associated Universities), Brett A Cruden (AMA Inc at NASA Ames Research Center)

A Quantum-Cascade-Laser-Absorption-Spectroscopy Diagnostic for Measuring Temperature and Nitric Oxide at 1 MHz in Shock-Heated Air
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Jonathan J Gilvey, Christopher S Goldenstein (Purdue University)

Temperature and Velocity Measurement in a Shock Tube with Homodyne and Heterodyne Grating Spectroscopy
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Lukas Jakobs, Tobias Sander, Christian Mundt (Universitat der Bundeswehr Munchen Fakultat fur Luft- und Raumfahrttechnik)

New method for femtosecond two-photon laser induced fluorescence calibration
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Andrey Starikovskiy, Arthur Dogariu (Princeton University)

High Enthalpy Flow Characterization by Tunable Diode Laser Absorption Spectroscopy
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Mirka Mandich, Zhili Zhang (The University of Tennessee Knoxville Tickle College of Engineering)

Spatially Resolved Measurements of Krypton by Two-photon Absorption Laser Induced Fluorescence (TALIF) in a Barium Oxide Hollow Cathode Plasma
Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
Seth Antozzi, Jacob Gottfried, John D Williams, Azer P Yalin (Colorado State University Walter Scott Jr College of Engineering)

AA-43 | In Person - Harbor A

Low-order acoustic prediction tool for estimating noise emissions from distributed propeller configurations
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Fernanda do N Monteiro, Daniele Ragni, Tomas Sinnige, Francesco Avallone (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Assessment of the Actuator Line Method for the Aeroacoustic Simulation of Distributed Electric Propulsion
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Robin Wickersheim, Manuel Keßler, Ewald Krämer (Universitat Stuttgart Institut fur Aerodynamik und Gasdynamik)

An Artificial Neural Network Approach to Predict Rotor-Airframe Acoustic Waveforms
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Arthur D Wiedemann, Christopher Fuller (Virginia Polytechnic Institute and State University), Kyle A Pascioni (NASA Langley Research Center Structural Acoustics Branch)

Broadband Predictions of Optimized Proprotors in Axial Forward Flight
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Joshua D Blake, Christopher S Thurman, Nikolas S Zawodny, Leonard V Lopes (NASA Langley Research Center)

Multi-Fidelity Propeller Noise Prediction using a Data-Driven Approach
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Beckett Yx Zhou, Liam P Hanson, Shaun F Pullin, Bin Zang (University of Bristol), Jeremiah Hauth, Xun Huan (University of Michigan)

High-Fidelity Propeller Broadband Noise Prediction using SU2
Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
Filipi Kunz, Beckett Yx Zhou (University of Bristol), Luca Galimberti, Myles Morelli, Alberto Guardone (Politecnico di Milano)

FD-33 | In Person - Bankers Hill

Comparing SPOD and POD for Wake Flow of Tandem Oscillating Cylinders
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Hao Zhou, Charlie Zheng (Utah State University)

Data-Driven Mori-Zwanzig: Reduced Order Modeling of Sparse Sensors Measurements for Boundary Layer Transition
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Michael Woodward (The University of Arizona), Yifeng Tian, Yen Ting Lin, Arvind T Mohan (Los Alamos National Laboratory), Christoph Hader, Hermann F Fasel, Michael Chertkov (The University of Arizona), Daniel Livescu (Los Alamos National Laboratory)

(continued) FD-33 | In Person - Bankers Hill

A Comparison between Neural Networks and Gappy POD for Urban Wind Field Estimation
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Carola Ebert, Julien Weiss (Technische Universitat Berlin)

An optimization framework for analyzing nonlinear stability due to sparse and spatially-localized finite-amplitude perturbations
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Maziar Hemati (University of Minnesota Twin Cities)

Reconstruction of Large-Scale Coherent Structures in Turbulent Separation Bubbles Using Phase-Consistent DMD
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Arnaud Le Floc'h, Giuseppe Di Labbio, Louis Dufresne (Ecole de technologie superieure)

EATS-15 | In Person - Gaslamp D

Electrified Aircraft Propulsion Controls Hardware Testing
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Joseph W Connolly, Dennis E Culley, Donald L Simon (NASA)

Control and Scaling Approach for the Emulation of Dynamic Subscale Torque Loads
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Santino Bianco, Donald L Simon (NASA Glenn Research Center)

Hybrid-Electric Aero-Propulsion Controls Testbed Results
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Jonah Sachs-Wetstone, Santino Bianco, Jonathan Lee Kratz, Marcus Horning, Aria E Amthor, Joseph W Connolly (NASA)

Hybrid-Electric Aero-Propulsion Controls Testbed Results with Energy Storage
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Santino Bianco, Jonathan Lee Kratz, Dennis E Culley (NASA Glenn Research Center), Marcus Horning (HX5, LLC), Jonah J. Sachs-Wetstone, Joseph W Connolly (NASA Glenn Research Center)

Real-time Hardware-in-the-Loop Evaluation of a Partially Turboelectric Propulsion Control Design
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Donald L Simon, Santino Bianco, Marcus Horning, Joseph R Saus, Aria E Amthor, Jonah J. Sachs-Wetstone (NASA)

APA-38 | In Person - Hillcrest D

Modeling and Simulation of Shipboard Launch and Recovery of Helicopters - An Overview of AVT-315
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Ieuan Owen (University of Liverpool), Richard Lee, Alanna Wall (National Research Council Canada), Nicholas Fernandez (University of Liverpool), Joshua Butler (Naval Air Systems Command)

Comparison of Reduced Order Models for Evaluating Stability Derivatives for the DLR-F22 ONERA model
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Markus Widhalm, Mario Stradtner, Andreas Schuette (Deutsches Zentrum fur Luft- und Raumfahrt eV), Mehdi Ghoreyshi, Adam Jirasek, Jurgen Seidel (US Air Force Academy)

Abstract: Lattice Boltzmann based simulation around the NATO Generic Destroyer with immersed boundary method
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Jerome Jacob (Aix-Marseille Universite), Simon Verley, Armin Taghizad (ONERA Salon-de-Provence), Julien Favier, Pierre Sagaut (Aix-Marseille Universite)

EATS-14 | In Person - Gaslamp C

Fault Propagation of Superconducting Power Cables in Power System Architectures for Electric Aircraft
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Paul Mensah, Peter Cheetham (FAMU-FSU College of Engineering), Sebastian Gomez, Christoph Diendorfer, Peter Zeller (FH Oberosterreich Fakultat fur Technik und Angewandte Naturwissenschaften), Sastry Pamidi (FAMU-FSU College of Engineering)

Development of Superconducting Cable topologies for IZEA Aircraft
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Peter Cheetham, Muhammad Tahir Mehmood Niazi, Chul H Kim, Sastry Pamidi, Jackson Bruce, Nagaraju Guvvala (Florida State University)

Development of Electric Propulsion System for Aircraft using Superconducting Technologies
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Masataka Iwakuma (Kyushu Daigaku), Teruo Izumi (Sangyo Gijutsu Sogo Kenkyujo Tsukuba Higashi)

ATS-15 | In Person - Harbor C

Exploring Analytical Methods for Expanding the AEDT Aircraft Fleet Database
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Mayank V. Bendarkar, Michelle Kirby, Styliani I. Kampezidou, Cristian Puebla-Menne, Dimitri N Mavris (Georgia Institute of Technology)

Environmental Impacts of Aircraft Reroutes from Long-Term Airspace Closures
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Christopher An (University of Michigan), Ben Chan (University of Pennsylvania), Max Z Li (University of Michigan)

Historical Domestic Flights from 2016-2020 with Estimations of Greenhouse Gas Emissions by Aircraft Type
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Susie Go, John Melton (NASA Ames Research Center), Xun Jiang (Science and Technology Corporation)

Electric Taxiing with Disruption Management: Assignment of Electric Towing Vehicles to Aircraft
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Mike Zoutendijk, Simon J van Oosterom (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek), Mihaela Mitici (Universiteit Utrecht)

Trajectory-related measures to mitigate the climate impact of aviation: A comparative study
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Zarah Zengerling, Florian Linke, Benjamin Lührs, Christian Martin Weder (Deutsches Zentrum fur Luft- und Raumfahrt eV)

ACD-17 | In Person - Balboa B

Quantifying the Impact of Uncertainty on Certification-Driven Design
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jiacheng Xie, Evan Harrison, Dimitri N Mavris (Georgia Institute of Technology)

Ontology-Based Generation of Onboard System Architectures
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Kristian Amadori, Christopher Jouannet (Saab Aeronautics), Ludvig Knöös Franzén (Linkopings universitet)

Demonstration of a Procedure-Based Approach to Develop a Concept of Operations for Optionally Piloted Vehicles
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Markus Maly, Christoph Krammer, Maximilian A. J. Wechner, Jerg Jaisle, Julius Hoffelner, Florian Holzapfel (Technische Universitat Munchen)

Interconnections in Model-Based Safety Analysis and Systems Design on the Example of a Fuel Cell Thermal Management System for Commercial Aircraft
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Sascha M. Lübbe, Michael Schäfer, Viola Voth, Axel Berres, Oliver Bertram (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Zonal Safety and Particular Risk Analysis for Aircraft Conceptual Design
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Parush Bamrah, Susan Liscouet-Hanke (Concordia University), Ali Tfaily, Alvaro Tamayo (Bombardier Inc)

EATS-16 | In Person - Harbor E

AA-44 | In Person - Torrey Hills A

An Indirect Impedance Eduction Process for Liners with Arbitrarily Complex Geometry
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Davide Cerizza (Dassault Systemes Americas Corp), Damiano Casalino (Dassault Systemes Deutschland GmbH)

Microstructure Controlled Multi-Layer Porous Material Liner Tested On The Advanced Noise Control Fan
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Bharath Kenchappa, Kunigal Shivakumar (North Carolina Agricultural and Technical State University), Daniel L Sutliff (NASA)

Turbulence interaction noise from a rectilinear cascade of airfoils and effects of porous material inclusions
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Vincent Clair, Edouard Salze, Pascal Souchotte, Emmanuel Jondeau (Laboratoire de Mecanique des Fluides et d'Acoustique)

Experimental investigation of the influence of boundary layer ingestion on the noise generation of a counter-rotating turbo fan
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Ulf Tapken, Lukas Klähn, Robert Meyer, Maximilian Behn (Deutsches Zentrum fur Luft- und Raumfahrt eV)

A Two-Dimensional Mode-Matching Technique for Wake-Interaction Tonal Noise Including Rotor-Stator Coupling
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Leo Girier, Michel Roger (Ecole Centrale de Lyon)

ACD-16 | In Person - Balboa A

Design and Fabrication of a Low-Cost, Deployable, Rogallo-Wing sUAS
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Lia Formica, Victoria Lenze, Andrew Loughran, Thomas Jones, Julia Cole, Simon Miller (The Pennsylvania State University)

Design Space of Aircraft Wings Made With Fused-Filament Fabrication
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Justin David Valenti, Joseph Bartolai, Michael Andrew Yukish (The Pennsylvania State University)

Energy Flow Modelling for Simulating Missions of Solar Electric High-Altitude Aircraft
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Andreas Bierig, Daniel Rothe, Daniel Ackermann (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Concept Evaluation of a Bi-Modal Autonomous System
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Cees Bil (RMIT University)

FD-30 | In Person - Solana Beach B

Flow and Force Measurement of a Passive Morphing Wing Under Unsteady Motion
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Kuldeep Namdeo (University of Illinois Urbana-Champaign), Anurag Bhattacharyya (Palo Alto Research Center Incorporated), Wanzheng Zheng (University of Illinois Urbana-Champaign), Kai James (Georgia Institute of Technology), Theresa Saxton-Fox (University of Illinois Urbana-Champaign)

Multi-Fidelity Analysis of a High-Speed, Separated Flow Past a Compliant Cantilever Plate
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Jordan David Thayer, Jack J McNamara, Datta V Gaitonde (The Ohio State University)

Fluid-structure interaction between an unsteady vortex-driven aerodynamic flow and a diatomic phononic subsurface
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Arturo Machado Burgos, Sangwon Park, Nick David OBrien, Kathryn Matlack, Andres Goza (University of Illinois Urbana-Champaign)

Comparative Numerical and Experimental Studies of Flow Energy Extraction from Controlled Viscous Limit-Cycle Oscillations in Modified Glauert Airfoil
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
Vladimir V Golubev, Erik Vataker, Daniel de la Pena Jimenez, Lap Nguyen, William MacKunis (Embry-Riddle Aeronautical University), Ron Efrati, Oksana Stalnov (Technion Israel Institute of Technology)

Micro-Cavity Actuator for Passive Control of Swept-Wing Dynamic Stall
Thursday, 15 June 10:50 - 11:10 (UTC-7) | Start:</strong
Daniel J Garmann, Miguel R Visbal (Air Force Research Laboratory)

Aerodynamic Control of a Cylindrical Platform at High Angles of Attack using Forebody Bleed
Thursday, 15 June 11:10 - 11:30 (UTC-7) | Start:</strong
Edward Lee, Bojan Vukasinovic, Ari Glezer (Georgia Institute of Technology)

GT-07 | In Person - Promenade A

In-Situ Laser-Based Ultrasonic Measurement of Material Cooling from Supersonic and Hypersonic Flow
Thursday, 15 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jordan S. Lum, Benjamin Goldberg, Erik Busby, David Stobbe (Lawrence Livermore National Laboratory), James A S Threadgill, Ashish Singh, Jesse C Little (University of Arizona), Aric Rousso (Lawrence Livermore National Laboratory)

Investigation of the Impact of the Sabot-Discard on the Trajectory of a Kinetic Energy Projectile
Thursday, 15 June 09:50 - 10:10 (UTC-7) | Start:</strong
Daniel Kharlamov, Andreas Zeiner, Bastien Martinez (French-German Research Institute Saint-Louis)

Extension of 1000 N Thrust-Class Experimental Results Changing Injection Type and Fuel Grain Length
Thursday, 15 June 10:10 - 10:30 (UTC-7) | Start:</strong
Daniele Cardillo, Francesco Battista, manrico fragiacomo (Centro Italiano Ricerche Aerospaziali), Stefano Mungiguerra, sergio cassese, raffaele savino (Universita degli Studi di Napoli Federico II)

A Measurement Technique of Roll Torque and Side Forces during Firing of a Rocket Motor with Two Canted and Scarfed Nozzles
Thursday, 15 June 10:30 - 10:50 (UTC-7) | Start:</strong
TZVI SHOHAM (Rafael Advanced Defense Systems Ltd)

13:00 | Technical Lecture

FT-07 | In Person - Cortez Hill C

FT-04 | In Person - Golden Hill A

13:00 | Technical Panel

DGE-06 | In Person - Gaslamp A

TF-21 | In Person - Cortez Hill A

13:00 | Technical Workshop

AA-45 | In Person - Cortez Hill B

Experimental study of trailing-edge bluntness noise reduction by porous plates
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
John Kershner, Justin Jaworski (Lehigh University), Thomas F Geyer (Deutsches Zentrum fur Luft- und Raumfahrt eV)

On the Single Porous Line Trailing Edge
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Philip C Woodhead, Max M Scholz, Tze Pei Chong (Brunel University London College of Engineering Design and Physical Sciences), Phillip Joseph, Chaitanya Paruchuri, Sergi Palleja Cabre (University of Southampton Institute of Sound and Vibration Research)

The Effect of Pressure Gradient on the Unsteady Surface Pressure and Wake Dynamics of a Finite Wall-Mounted Square Cylinder
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Chaoyang Jiang, Charitha de Silva, Con J Doolan, Danielle Moreau (University of New South Wales)

Experimental Evaluation of the Turbulence Interaction Noise Reduction by Flat Plates with Perforated Leading Edges
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Thomas F Geyer, Lars Enghardt (German Aerospace Center (DLR) Cottbus, Institute of Electrified Aero Engines)

CFD-21 | In Person - Solana Beach A

Assessment of Implicit and Adaptive Mesh-free CFD Modelling
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Tao Zhang (University of Leicester), George N Barakos (University of Glasgow)

In-Situ Adaptive Mesh Refinement for Direct and Large Eddy Simulations
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Justin Shafner, Pino Martin (University of Maryland at College Park)

A new Spalart-Allmaras model with rotation correction to improve off-body vortex prediction and vortex-vortex interaction effects
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Frederic Alauzet (Inria), Philippe Spalart (Boeing Commercial Airplanes (retired))

Improvements to the LAURA Mesh Adaptation Algorithm
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Kyle B Thompson, Adam J Wise, Brian R Hollis (NASA Langley Research Center)

Anisotropic Mach Cone Aligned Mesh Adaptation for Low Boom Simulations
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Chase Ashby, Jeffrey Allen Housman, Gaetan Kenway (NASA Ames Research Center)

APA-42 | In Person - Hillcrest B

Mini UAV with DBD-Plasma-Based Flow Control
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Mordechai Garcia, Dor Polonsky, Yoav Gichon, David Greenblatt (Technion Israel Institute of Technology)

Effect of Jet Angle on Trailing-Edge Pressure-Side Microjets used for Active Flow Control
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
James Robert Lee Koch, Jeffrey Allen Housman, Seyedeh Sheida Hosseini (NASA Ames Research Center)

Rotor Performance Enhancement and Noise Reduction using DBD Plasma Actuators
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Dor Polonsky, Stalnov Oksana, David Greenblatt (Technion Israel Institute of Technology)

Computational Analysis of Swept Wing Dynamic Response to Active Flow Control Actuation
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Patrick J Brandt, Jeffrey P Bons (The Ohio State University)

(continued) APA-42 | In Person - Hillcrest B

Steady versus Unsteady Actuation and Aspects of Practical Integration
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Arvin Shmilovich, Abdollah Khodadoust (The Boeing Company), Christopher Colletti, Phillip J Ansell (University of Illinois at Urbana-Champaign)

AA-59 | In Person - La Jolla B

ACD-18 | In Person - Balboa A

Aircraft Design Optimization Considering Network Demand and Future Aviation Fuels
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Pieter-Jan Proesmans, Roelof Vos, Bruno F. Santos (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Whither Gander? A Business Case to Revive a Northern Hub Airport to Reduce Transatlantic Emissions
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Timothy T Takahashi (Arizona State University Ira A Fulton Schools of Engineering)

Energy Analysis of Fleet Operations Using Green Liquid Hydrogen and Synthetic Kerosene
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Conor Gallagher, Charles Stuart, Stephen Spence (The University of Dublin Trinity College)

Aviation Pathways for Wildfire Suppression in California
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Jasenka Rakas, Christopher Alvarez, Sunny Hsu, Gerardo Lozada, Paulo Borrero (University of California Berkeley)

APA-43 | In Person - Hillcrest C

Low Aspect Ratio High-Lift Wing Design for Automotive Racing Applications
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Sajana S Ratnayake, Timothy T Takahashi (Arizona State University Ira A Fulton Schools of Engineering)

Practical Implications of Conical Flow Assumption in NLF and HLFC Wing Design
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Anand Sudhi, Camli Badrya (Technische Universitat Braunschweig Fakultat fur Maschinenbau)

Discussion of the Experimental Results for the S702, Slotted, Natural-Laminar-Flow Airfoil
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Mark D Maughmer, Leonard P Metkowski, Christopher J Axten (The Pennsylvania State University), Dan M Somers (Airfoils, Incorporated)

Mapping Two-Dimensional Airfoil Pressure Distributions over a Fighter Wing via Deep Learning
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Fazil Selcuk Gomec, Ozgur Ugras Baran, Hande Alemdar (Orta Dogu Teknik Universitesi)

EATS-20 | In Person - Harbor E

HSABP-10 | In Person - Gaslamp D

PGC-03 | In Person - Cove

High-speed laser absorption measurements of temperature and carbon oxides in linear detonation channels
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Kyle L Fetter, Benjamin Steavenson, Brandon Donald, Angelina Andrade, Christopher S Combs, Daniel I Pineda (The University of Texas at San Antonio), Jason R Burr (Air Force Research Laboratory Aerospace Systems Directorate Edwards AFB), John W Bennewitz (The University of Alabama in Huntsville), Blaine R Bigler (Jacobs Technology Inc)

Annulus geometry effects on a liquid hypergol rotating detonation rocket engine
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Alex R. Keller, Anil P Nair, Nicholas Kuenning, Nicolas Minesi, Raymond Mitchell Spearrin (University of California Los Angeles)

Base Drag Considerations to Determine Equivalent Available Pressure in the Rotating Detonation Rocket Engine
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Aref Abdala, Austin M Burden, Robert F Burke, Kareem A Ahmed (Propulsion and Energy Research Laboratory)

Comparison of 2D and 3D Supersonic Combustion Simulation Results in a Rotating Detonation Engine
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Foluso Ladeinde, Hyejin Oh (Stony Brook University)

FD-34 | In Person - Mission Beach A

Active Gust Alleviation on a High Aspect Ratio Wing Based on High Fidelity CFD Simulations
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Marco Hillebrand (Universitat Stuttgart Institut fur Aerodynamik und Gasdynamik)

(continued) FD-34 | In Person - Mission Beach A

Aerodynamic Flow Control of a Channel Wing
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Bojan Vukasinovic, Michael DeSalvo, Ari Glezer (Georgia Institute of Technology), Robert B Funk (Georgia Tech Research Institute Cobb County Research Facility)

Unsteady perturbations in a swept wing boundary layer induced by plasma actuation
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Kaisheng Peng (Technische Universiteit Delft)

Flow Physics Study of Sweeping Jet Actuation on a NACA 0015 Swept Wing Configuration
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
LaTunia G Pack Melton, Dan Neuhart, Mehti Koklu (NASA Langley Research Center)

Resolvent-based estimation and control for turbulent airfoil flows
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Junoh Jung, Rutvij Bhagwat, Aaron Towne (University of Michigan)

TP-16 | In Person - Golden Hill B

Numerical modelling of solid state combustion in novel pyrolants used as heat and energy sources for space missions
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Shubham Kesharwani, Cory Kinney, Subith Vasu (University of Central Florida)

Effect of Boundary Layer Thickness on Effusion Film Cooling Effectiveness by Varying Compound Angle
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Yeongmin Pyo (University of Ottawa), Mohsen Broumand (National Research Council Canada), Patrick Richer, Bertrand Jodoin (University of Ottawa), Sangsig Yun, Zekai Hong (National Research Council Canada)

Paradigm and Data Reduction Shift for Estimating Heat Flux in Short-Time Hypersonics Ground Tests
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Jay I Frankel, Fangjun Shu, Andreas Gross (New Mexico State University)

FD-38 | In Person - Hillcrest A

A Novel Deep Learning Based Approach for Particle Image Velocimetry with Global Motion Aggregation
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Jincheng Wang, Haisha Sista, Haiyang Hu, Ping He, Hui Hu (Iowa State University)

A Method for Obtaining Surface Flow Vectors and Its Implementation in Interferometric Skin Friction Measurement
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Mehti Koklu, Dan Neuhart, LaTunia G Pack Melton (NASA), Jonathan W Naughton (University of Wyoming)

Single-camera Three-dimensional Deformation Measurement using Data-driven Reduced Order Model
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Yuta Ozawa, Kento Akama, Taku Nonomura, Keisuke Asai (Tohoku Daigaku)

Particle Seeding System Upgrades in the NASA GRC 1'×1' Supersonic Wind Tunnel
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Heath H Reising, Puja Upadhyay (HX5, L.L.C), Mark P Wernet (NASA Glenn Research Center)

Near-Wall Flow Measurements Using Frequency-Modulating Filtered Rayleigh Scattering (FM-FRS)
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Gwibo Byun, Todd Lowe (Virginia Polytechnic Institute and State University), Michael Ellery, Joshua Sole (Prime Photonics LC)

VSTOL-04/TF-15 | In Person - Harbor I

The Stopped Rotor Concept – A New Look At An Old Idea
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Gerald E Brown, Shivaranjani S Sathe, Vivek Ahuja (American Institute of Aeronautics and Astronautics)

AA-46 | In Person - Harbor B

Measurements on subsonic elliptical jet noise
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Filipe Ramos Amaral, Anton Lebedev, Peter Jordan (Institut Pprime)

Influence of the initial turbulence level on the noise produced by a high subsonic impinging jet
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Hugo Vincent, Christophe Bogey (Ecole Centrale de Lyon)

(continued) AA-46 | In Person - Harbor B

A parametric analysis of the effect of the jet initial conditions on the wavelet-decomposed near-field acoustic pressure

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Stefano Meloni (Universita degli Studi della Tuscia), Roberto Camussi, Matteo Mancinelli (Universita degli Studi Roma Tre), Christophe Bogey (Universite de Lyon)

Two-point measurements on the acoustic field of subsonic turbulent jets

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Barbara Gramiscelli Hasparyk, Peter Jordan, Anton Lebedev (Institut Pprime, CNRS–Université de Poitiers), Lutz Lesshafft (LadHyX, CNRS, Ecole Polytechnique, Institute Polytechnique de Paris), Ethan M Pickering (Massachusetts Institute of Technology), Tim Colonius (California Institute of Technology)

Jet Noise Flyover and Scale Model Tests

Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong

Brenda S Henderson, Lennart S Hultgren (NASA Glenn Research Center)

CFD-22 | In Person - Ocean Beach

Building-Block-Flow Model for Large-Eddy Simulation: Application to NASA CRM-HL

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Adrian Lozano-Duran, Gonzalo Arranz, Yuenong Ling (Massachusetts Institute of Technology)

Evaluation of LES wall models for coherent structure SGS model using Loci-Chem solver

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Xiaoling Tong, Edward Luke, Matthew Brockhaus (Mississippi State University), Ian Dettwiller (US Army Engineer Research and Development Center), Adrian Sescu (Mississippi State University)

A Wall-Modeling Approach for Immersed Boundaries Based on Momentum Forcing

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Juan D Colmenares, Mark Kostuk (General Atomics)

Numerical Simulation of Turbulent Boundary Layer with Free Stream Turbulence

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Md Abrar Hoque, Andreas Gross (New Mexico State University)

Compact wall-model for high-order spectral difference numerical schemes

Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong

Tiphaine Arnould, Michaël Bauerheim, Romain Gojon, Jérémie Gressier (ISAE-SUPAERO)

FD-36 | In Person - Pier

Spontaneous Laminar Separation Bubble Bursting on an Airfoil

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Connor E Toppings, Serhiy V Yarusevych (University of Waterloo)

Resolvent-based analysis of low-Reynolds-number separated flows around tapered wings

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Jean Helder M Ribeiro, Kunihiko Taira (University of California Los Angeles)

Numerical Study on Hypersonic Flow over a Spherically Blunt Nose with Counter-flow Jet at Various Pressure Ratio in Low Reynolds Number Regime

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Hee Yoon, Kojiro Suzuki (Tokyo Daigaku)

Novel Application of the Kármán–Pohlhausen Momentum–Integral Approach to Flow Past a Cylinder Using the Hiemenz Farfield Solution

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Rudy Al Ahmar, Gaurav Sharma, Joseph Majdalani (Auburn University)

Wavy Trailing Edge Effects on Truncated Thick Airfoil

Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong

Paulo Henrique Ferreira, Rodrigo Costa Moura, Adson Agrico de Paula (Instituto Tecnologico de Aeronautica)

ATS-16 | In Person - Harbor D

Sequential Classification of Aviation Safety Occurrences with Natural Language Processing

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Aziida Nanyonga, Hassan Wasswa, Ugur Turhan, Oleksandra Molloy, Graham Wild (Australian Defence Force Academy)

(continued) ATS-16 | In Person - Harbor D

A Hybrid Ensemble Machine Learning Approach For Arrival Flight Delay Classification Prediction Using Voting Aggregation Technique

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Desmond Bala Bisandu, Irene Moulitsas (Cranfield University Cranfield School of Aerospace Transport and Manufacturing)

AI for Real-time Tolerance to Critical Flight Data Errors in Large Aircraft

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Cynthia Koopman, David Zammit-Mangion (University of Malta)

FD-37 | In Person - Mission Beach B

High-Speed Imaging of Interaction of Liquid Drops with Hypersonic Projectiles

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Alex Dworzanczyk, Nick J Parziale (Stevens Institute of Technology), Christopher Croft, Daniel Wise, Michael Libeau (Naval Surface Warfare Center Dahlgren Division)

Numerical Modeling of Shock Induced Aerobreakup of a Droplet at High Reynolds and Weber Number

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Andrew Sayad, Jason Rabinovitch, Alex Dworzanczyk, Nick J Parziale (Stevens Institute of Technology)

Application of a Diffuse Interface Multiphase Method for High Temperature and Hypersonic Flows with Phase Change

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Tyler D Stoffel (University of Kentucky), Manuel Viqueira-Moreira, Christoph Brehm (University of Maryland at College Park), Savio James Poovathingal (University of Kentucky)

An Investigation on Mist Formation from High-Speed Shock-Droplet Interaction and Impingement Including Cavitation and Surface Tension Effects

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Manuel Viqueira-Moreira, Christoph Brehm (University of Maryland at College Park)

ACD-19 | In Person - Balboa B

Thermal Management System Modeling for Preliminary Design of Fuel Cell-Based Aircraft

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Valentine Habrard, Valérie Pommier-Budinger (ISAE-SUPAERO), Ion Hazyuk (Institut Clément Ader (ICA), University of Toulouse, INSA, ISAE-SUPAERO, MINES ALBI, UPS, CNRS), Joël Jézégou, Emmanuel Benard (ISAE-SUPAERO)

The Virtual Propulsion Expert: Application of a Hybrid Surrogate-Based Rubber Engine Model in Aircraft Design

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Jannik Häßy (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Accelerating Aerodynamic Design of Rotors using a Multi-Fidelity Approach in TORC: Tool for Optimization of Rotorcraft Concepts

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Ananth Sridharan, Jeffrey D Sinsay (Science and Technology Corporation)

Parametric studies of boundary layer ingestion layouts on a blended wing body aircraft

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Sebastien Defoort, Julie Gauvrit-Ledogar, Michael Meheut, Olivier Atinault, Quentin Bennehard (Office National d'Etudes et de Recherches Aerospatiales)

MDO-16 | In Person - Old Town A

Towards an adaptive trailing-edge noise model using a data-driven approach

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Aurelien Ghiglino, Shaun F Pullin, Beckett Yx Zhou (University of Bristol)

Adaptive Selection of Decomposed Function Emulators for Rapid Neural Networks

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Atticus J Beachy, Harok Bae (Wright State University), Jose A. Camberos (Air Force Research Laboratory), Ramana V Grandhi (Air Force Institute of Technology)

Machine Learning Based Wing Optimization with Applications to Hydrogen Powered Aircraft

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Mike Kiely, Ramesh K Agarwal (Washington University in St Louis)

Physics-Infused Machine Learning for Airfoil Shape Design Optimization

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Benjamin Wong, Murali Damodaran, Boo Cheong KHOO (National University of Singapore)

(continued) MDO-16 | In Person - Old Town A

Machine Learning Surrogates for Optimal 2D Spatial Packaging of Interconnected Systems with Physics Interactions (SPI2)
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Corey Parrott, Satya Peddada, James T Allison (University of Illinois Urbana-Champaign), Kai James (Georgia Institute of Technology)

Transfer Mapping with Invertible Neural Networks in Physics-Infused Machine Learning of VTOL Aerodynamics
Thursday, 15 June 14:40 - 15:00 (UTC-7) | Start:</strong
Manaswin Oddiraju (University at Buffalo), Divyang Amin, Michael Piedmonte (Bechamo LLC), Souma Chowdhury (University at Buffalo)

PDL-06 | In Person - Promenade B

Ultraviolet (UV) Laser Implementation and Measurement Sensitivities in Filtered Rayleigh Scattering for Aerodynamic Flows
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Garrett Pitt, Todd Lowe (Virginia Polytechnic Institute and State University)

Radio frequency signal attenuation through a stagnant flow in an inductively coupled plasma wind tunnel
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Diana Luis (Von Karman Institute For Fluid Dynamics), Vincent Giangaspero (Katholieke Universiteit Leuven), Alan Viladegut, Olivier Chazot (Von Karman Institute For Fluid Dynamics), Adriano Camps (Universitat Politecnica de Catalunya)

Rolling shutter photography for high speed investigation of plasma jets
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Martin F. Eberhart, Stefan Loehle, Felix Grigat (Universitat Stuttgart)

Nitric Oxide PLIF in Hypersonic Shock-wave Interaction Zone
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Boris S Leonov, Tyler S Dean, Donovan E McGruder, Rodney D Bowersox, Richard Miles (Texas A&M University System), Christopher Limbach (University of Michigan)

A 200 kHz TDLAS Diagnostic for Characterizing Non-Equilibrium CN Formed Behind Shock Waves in N₂-CH₄ Mixtures
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Jennifer L Vera, Vishnu Radhakrishna, Charles J Schwartz, Christopher S Goldenstein (Purdue University)

EATS-18 | In Person - Gaslamp C

Partial Discharge in Silicon Carbide Driven Random Wound Motor Windings for Aviation Applications
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Pengyu Fu, Zhuo Wei, Haoyang You, Jin Wang (The Ohio State University)

Projecting Key Performance Parameters for Electric Powertrain Components through 2050 for Aerospace Applications
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Chrysoula L Pastra, Neri Ganzarski, Jonathan Conrad Gladin, Dimitri N Mavris (Georgia Institute of Technology)

Electric Motor Design Optimization Accounting For Temperature And Irreversible Demagnetization
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Tucker Babcock, Bryan McKeever, Jason E Hicken (Rensselaer Polytechnic Institute)

Constant Torque and Maximum Torque per Ampere Curves with Quadratic Curve Fitting in Consideration of Interior Permanent Magnet Electric Machine Technology for Aircraft
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
David D Gross, William Perdikakis (PC Krause and Associates), Kevin J. Yost (Air Force Research Laboratory)

AA-47/TF-16 | In Person - Harbor A

Acoustic Mapping Strategies for Multirotor Aircraft Mission Planning Tools
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Robert F. Rau, Eric Greenwood (The Pennsylvania State University)

Effects of Varying Separation Distance on the Acoustics and Performance of Counter-Rotating Coaxial Rotors.
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Eric Mcthane, Raja Akif Raja Zahirudin, Aaron Hafner, Eric Greenwood, Jose Palacios (The Pennsylvania State University)

Aerofoil geometry effects on the interaction noise of co-axial contra-rotating rotors
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Sergi Palleja-Cabre, Chaitanya Choudary Paruchuri, Phillip Joseph (University of Southampton)

Aeroacoustic characteristics of distributed electric propulsion configuration with turbulent flows
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Luke Bowen, Burak Turhan, Hasan Kamliya Jawahar, Djamel Rezgui, Mahdi Azarpeyvand (University of Bristol)

PGC-05/HSABP-12 | In Person - La Jolla A

FD-39 | In Person - Solana Beach B

Prediction of airfoil dynamic stall response using convolutional neural networks
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Renato Fuzaro Miotto, William Wolf (Universidade Estadual de Campinas)

Assimilating Physical Variables from BOS Measurements in Supersonic Flow Using Physics Informed Neural Networks
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Lennart Rohlfs, Julien Weiss (Technische Universitat Berlin)

AbbottAE: An Autoencoder for Airfoil Aerodynamics
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Ettore Saetta, Renato Tognaccini (Universita degli Studi di Napoli Federico II), Gianluca Iaccarino (Stanford University)

A Data-Driven Approach to Study Nonlinear Dynamics of Wind-Driven Water Runback Flows Pertinent to Aircraft Icing Phenomena
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Jincheng Wang, Haiyang Hu, Ping He, Hui Hu (Iowa State University)

FD-35 | In Person - Bankers Hill

On the Fusion of Gaussian Process Regression Models and Linear Interpolation for Steady Multivariate Aerodynamic Load Modeling
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Wayne Farrell, Michael P Kinzel (University of Central Florida, University of Central Florida, Orlando, FL, US, academic)

Modal Analysis of Spatiotemporal Data via Multi-fidelity Multi-variate Gaussian Processes
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Jiwoo Song, Daning Huang (The Pennsylvania State University)

Self-consistent closure modeling for linearized mean field methods
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Jakob G. R. von Saldern, Johann Moritz Reumschüssel, Thomas L Kaiser (Technische Universitat Berlin), Oliver Thomas Schmidt (University of California San Diego), Peter Jordan (Institut Pprime), Kilian Oberleithner (Technische Universitat Berlin)

Modeling low-frequency, reduced-order dynamics of turbulent flows using data
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Sijie Huang, Jeonglae Kim (Arizona State University)

Learning physics-based reduced-order models from data using quadratic manifolds
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Rudy Geelen, Aniketh Kalur, Karen E Willcox (The University of Texas at Austin)

ATM-06 | In Person - Balboa C

Expedition to W-72
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
John Platte (USAF, Ret.), Erick Rossi De La Fuente (NASA Armstrong Flight Research Center (AFRC))

Detection, Characterization, and Evaluation of Unidentified Aerial Phenomena
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Michael F Lembeck (University of Illinois Urbana-Champaign), Dan Heimerdinger (Retired), Ryan Graves (ATMIOC), Marty Snow (Retired), Erick Rossi De La Fuente (NASA), Peter Reali (Scientific Coalition For UAP Studies)

Recommendations to Improve Acquisition and Management of Aviation-Related UAP Data
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Martin G Snow (Retired Quality Engineering Specialist), John Platte (Retired, U.S. Air Force), John-Michael Gutierrez (U.S. Navy), Ted Roe (NARCAP)

Aerodynamic Interactions and Turbulence Mitigation by Unidentified Aerospace-undersea Phenomena
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Timothy K Oliver (Scientific Coalition for UAP Studies)

EATS-19 | In Person - Gaslamp B

Hydrogen-Electric Technologies for Future Zero-Emissions Aviation: Activities of the Center for High-Efficiency Electrical Technologies for Aircraft (CHEETA)
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Phillip J Ansell (University of Illinois Urbana-Champaign)

(continued) EATS-19 | In Person - Gaslamp B

Aerodynamic Shape Optimization of a Hybrid-Electric Aircraft

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Prateek Ranjan (University of Illinois System), Ghanendra Kumar Das (Georgia Institute of Technology), Elias Waddington, Matthew G Lauer, Phillip J Ansell (University of Illinois System), Kai James (Georgia Institute of Technology)

Trade-Space Assessment of Liquid Hydrogen Propulsion Systems for Electrified Aircraft

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Andrew S White (Massachusetts Institute of Technology), Elias Waddington (University of Illinois Urbana-Champaign), Edward M Greitzer (Massachusetts Institute of Technology), Jason M Merret, Phillip J Ansell (University of Illinois Urbana-Champaign), David Kenneth Hall (The Pennsylvania State University)

Aerodynamic Analysis of Lifting-Fuselage Configurations

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Karthik Mahesh, Phillip J Ansell (University of Illinois Urbana-Champaign)

APA-44/SPSN-04 | In Person - Hillcrest D

X-59 Sonic Boom Test Results from the NASA Glenn 8- by 6-Foot Supersonic Wind Tunnel

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Donald A Durston (NASA Ames Research Center), John D Wolter (NASA Glenn Research Center), Patrick Shea, Courtney S Winski, Alaa A Elmiligui, Melissa B Carter, Sarah Langston, Michael D Bozeman (NASA Langley Research Center)

Near-Field Pressure Signature Measurements of NASA X-59 in JAXA 1 m × 1 m Supersonic Wind Tunnel

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Junichi Akatsuka, Shinya Koganezawa (Japan Aerospace Exploration Agency), Satoshi Kondoh (Ryoyu Systems Co., Ltd), Hiroaki Ishikawa, Yoshikazu Makino, Shinji Nagai (Japan Aerospace Exploration Agency)

Near-Field Pressure Signature Prediction of NASA X-59 using JAXA's Unstructured Grid Solver FaSTAR

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Shinya Koganezawa, Hiroaki Ishikawa (Japan Aerospace Exploration Agency), Satoshi Kondoh (Ryoyu Systems Co.), Junichi Akatsuka, Yoshikazu Makino (Japan Aerospace Exploration Agency)

Experimental and Computational Study of the X-59 Wind Tunnel Model at Glenn Research Center 8- by 6-foot Supersonic Wind Tunnel

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Melissa B Carter, Alaa A Elmiligui, Michael A Park, Patrick Shea, Courtney S Winski (NASA Langley Research Center), Donald A Durston, James C Jensen, Jacob Wagner, Scott Neuhoff (NASA Ames Research Center), John D Wolter (NASA John H Glenn Research Center)

X-59 CFD and Wind Tunnel Data Comparisons

Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong

Todd E Magee, Leonel Serrano, Raul Mendoza, Alejandro Gonzalez, David R. Muscalus (The Boeing Company), Ashley M. Jones, Madison Peyton, Stephen G. Shaw (The Boeing Company Commercial Airplanes Everett)

ATS-17 | In Person - Harbor C

Optical Flow and its Application to Object Detection, Weather Modeling and Contrails

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Banavar Sridhar (University of California, Berkeley)

Cost benefit and environmental impact assessment of operational towing

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Paul C Roling, Megan Segeren (Technische Universiteit Delft)

Cost benefit and environmental impact assessment of autonomous eTaxi

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Paul C Roling (Technische Universiteit Delft)

MDO-17 | In Person - Old Town B

Optimal 3D Design of a Cross-Flow Heat Exchanger using Topology Optimization

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Waheed Babatunde Bello, Kai James (Georgia Institute of Technology)

Topology Optimization for Design of Resilient Structures using Smart Materials

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

Anurag Bhattacharyya, Amir M. Mirzendehdel (Palo Alto Research Center Incorporated)

Topology optimization of crash-tolerant aircraft structures

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Ghanendra K Das, James T Gloyd, Graeme J Kennedy, Kai James (Georgia Institute of Technology)

(continued) MDO-17 | In Person - Old Town B

Buckling Load Maximization of Stiffened Plates using Level Set Topology Optimization and Inverse Isoparametric Mapping Algorithm
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Wei Zhao, Mohammed Abir Mahdi (Oklahoma State University)

Design Framework for Optimization of Curvilinearly Stiffened Variable Stiffness Composite Laminates with Manufacturing Defects
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Mayank Agarwal, Rakesh K Kapania (Virginia Polytechnic Institute and State University), Satchi Venkataraman (San Diego State University), Daniel C Hammerand (M4 Engineering, Inc.)

AA-48 | In Person - Torrey Hills A

Direct noise predictions of a 360° full fan stage using LES
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Jean Al Am, Vincent Clair, Alexis Giauque, Jérôme Boudet (Ecole Centrale de Lyon), Fernando Gea-Aguilera (Safran Aircraft Engines)

Multiple Pure Tone Noise Predictions of a Propulsion Engine Fan with PowerFLOW
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Swarna Sinha (Honeywell International Inc), Davide Cerizza (Dassault Systemes Americas Corp), William Schuster (Honeywell International Inc)

Development of Fully Low-Order Prediction of Fan Broadband Interaction Noise via Integration of Machine Learning
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Nuo Li, Yifan Zhang (Boston University), Julian Winkler, Craig Aaron Reimann, Dmytro Voytovych, Jeffrey Mendoza (Raytheon Technologies Research Center), Sheryl M Grace (Boston University)

Modal analysis of in-duct tonal fan noise at varying shaft speed with an iterative Bayesian inverse approach
Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong
Johann Miranda, Antonio Pereira, Marc C Jacob (Ecole Centrale de Lyon), Johan Thisse (Airbus SAS)

Fan Noise Predictions of the NASA Source Diagnostic Test using Unsteady Simulations with LAVA: Part II - Tonal and Broadband Noise Assessment
Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong
Luis Santos Fernandes, Jeffrey Allen Housman, Gerrit-Daniel Stich, Gaetan Kenway (NASA Ames Research Center)

GPU-accelerated large-eddy simulations of the NASA fan noise source diagnostic test benchmark
Thursday, 15 June 14:40 - 15:00 (UTC-7) | Start:</strong
Guillaume A Brès, Kan Wang, Michael Emory, Christopher B Ivey, Sanjeeb Bose (Cascade Technologies Inc)

CFD-23 | In Person - Torrey Hills B

Data-driven uncertainty quantification for turbulence modeling of highly-loaded turbine cascades featuring larminar-turbulent transition
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Marcel Matha, Michael Bergmann, Christian Morsbach (Deutsches Zentrum fur Luft- und Raumfahrt eV)

An Object-Oriented Approach to Tracking Particles in a Flow
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Dilip Kalagotla, Paul Orkwis (University of Cincinnati)

Numerical Investigation of Helicopter Rotor-Empennage Aerodynamic Interactions
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Furkan Kurban, Osman Gungor, Murat Senipek, Alper Ezertas (Turkish Aerospace Inc.)

GT-08 | In Person - Promenade A

Nucleation in Non-Equilibrium Supersonic Flow: Theory and CARS Measurements
Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong
Philip Lax, Sergey B Leonov (University of Notre Dame)

Uncertainty Improvement in the NASA Glenn Research Center 8- by 6-Foot Supersonic Wind Tunnel
Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong
Aaron M Johnson, Nathan D Kelsey, Pamela L Poljak (Jacobs Engineering Group Inc), David A Rinehart (HX5 Sierra)

Modal Decomposition of Wind-Tunnel Fluctuations
Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong
Georg Fahland, Ferdinand Elsner, Kai Weber, Frédéric Kauffmann, Michael Wickberg, David Achzehnter, Jochen Kriegseis (Institute of Fluid Mechanics, Karlsruhe Institute of Technology)

(continued) GT-08 | In Person - Promenade A

Laser Differential Interferometry and Self-Aligned Focusing Schlieren Measurements at the Probe Calibration Tunnel

Thursday, 15 June 14:00 - 14:20 (UTC-7) | Start:</strong

Joshua M Weisberger, Brett F Bathel, Gregory C. Herring, Amanda Chou (NASA Langley Research Center)

Applying P4T3 Methodology to Test Facility Maintenance - An Army Aviation Perspective

Thursday, 15 June 14:20 - 14:40 (UTC-7) | Start:</strong

Drew A Curriston, Lisa Brown, Edward B White (Texas A&M University System)

TF-17/EATS-21/GA-08 | In Person - Harbor F

X-57 High Lift Motor Controller Design and Testing

Thursday, 15 June 13:00 - 13:20 (UTC-7) | Start:</strong

Sean C Clarke (NASA Armstrong Flight Research Center), David Avanesian, Susanah Kowalewski (NASA John H Glenn Research Center), Jacob Terry (NASA Armstrong Flight Research Center)

Utilizing Code Generation from Models for Electric Aircraft Motor Controller Flight Software

Thursday, 15 June 13:20 - 13:40 (UTC-7) | Start:</strong

John M Maroli, Brian A Morris, Julie A Blystone (NASA Glenn Research Center), Andrew M Oconnor (HX5 LLC)

Thermal Environments and Margin Guidelines for NASA's X-57 "Maxwell" Flight Demonstrator

Thursday, 15 June 13:40 - 14:00 (UTC-7) | Start:</strong

Jarred Wilhite, Nicholas K Borer, Michael Frederick (NASA)

15:30 | Technical Paper Session

16:00 | Technical Paper Session

EATS-23 | In Person - Gaslamp C

Risk assessment related to PD activity in electrical insulation systems of machines in flammable environment

Thursday, 15 June 16:00 - 16:20 (UTC-7) | Start:</strong

Robin Acheen, Thierry Lebey (Safran Tech, Parc d'activité d'Andromède, 1 Rue Louis Blériot, CS 80049, 31702 Blagnac, FRANCE), Bruno Masson, Thibaut Vozy (Safran Aerosystems, 10 Boulevard Sagnat, BP3, 42230 Roche la Molière, FRANCE), Philippe Bottein (Safran Aerosystems, Plaisir - 78 (Yvelines) - 78373, FRANCE), Xavier Choeur, Maxime Colin (Safran Electronics & Defense Actuation,41 rue Guynemer, 89000 Auxerre, FRANCE)

Analysis of space charge in dielectric materials for aeronautics and off-shore DC applications

Thursday, 15 June 16:20 - 16:40 (UTC-7) | Start:</strong

Mourad Jebli (Institut d'Electronique et des Systèmes, University of Montpellier / CNRS), Jean Rivenc (radiall), Jean-Charles Laurentie, Serge Agnel, Jerome Castellon (Institut d'Electronique et des Systèmes, University of Montpellier / CNRS), Cecilien Thomas, Samuel Pin, Guillaume Belijar (Institut de Recherche Technologique Antoine de Saint-Exupery), Frederic Forget, Romain Magnan (Airbus SAS), Emilie Fond (radiall), Bastien Detilleul (Radiall Chateau-Renault), Florent Buttin (radiall), Christian Geertsen, Emmanuel Perez (ITP Interpipe)

Impedance Measurements of Motor Drives and Supplies in NASA NEAT Facility

Thursday, 15 June 16:40 - 17:00 (UTC-7) | Start:</strong

Timothy Dever, David J Sadey, Keith Hunker, Xavier Collazo-Fernandez, Patrick Hanlon, peter kascak, Casey Theman, Brian Malone (NASA Glenn Research Center)

NASA Scaled Power ElEctrified Drivetrain

Thursday, 15 June 17:00 - 17:20 (UTC-7) | Start:</strong

Patrick Hanlon, David J Sadey, Linda Taylor, Casey Theman, Keith Hunker, Henry Fain, Nuha N Nawash, George L Thomas, Paul Nowak, Xavier Collazo-Fernandez, Trey Rupp, Brian Malone, Mark Valco (NASA)

Impedance Measurements of Motor Drive and Supply in SPEED Testbed

Thursday, 15 June 17:20 - 17:40 (UTC-7) | Start:</strong

Timothy Dever, Xavier Collazo-Fernandez, Patrick Hanlon, Keith Hunker, David J Sadey, Casey Theman, Brian Malone (NASA)

EATS-25 | In Person - Gaslamp D

DESIGN of a 40-MW-CLASS ELECTRIC WIRE INTERCONNECT SYSTEM for LIQUID-H2 FUEL-CELL PROPULSION

Thursday, 15 June 16:00 - 16:20 (UTC-7) | Start:</strong

Timothy J Haugan (U.S. Air Force Research Laboratory), Mary Ann P Sebastian (University of Dayton), Chris J Kovacs (Scintillating Solutions LLC)

AC Loss of Superconducting Strands at High frequencies, and the impact for Harmonic Contributions

Thursday, 15 June 16:20 - 16:40 (UTC-7) | Start:</strong

Mike D Sumption (The Ohio State University)

(continued) EATS-25 | In Person - Gaslamp D

Design of a Fully Superconducting Aircraft Propulsion Motor

Thursday, 15 June 16:40 - 17:00 (UTC-7) | Start:</strong
Joshua M Feldman, Jianqiao Xiao, Thanatheepan Balachandran, Kiruba S Haran (University of Illinois Urbana-Champaign)

Thermal Challenges and Solutions for Hydrogen Fuel Cell Aircraft

Thursday, 15 June 17:00 - 17:20 (UTC-7) | Start:</strong
Michael F Stoia, Mingxuan Shi (The Boeing Company)

Required Developments for Integration of Sustainable Hydrogen in Aviation

Thursday, 15 June 17:20 - 17:40 (UTC-7) | Start:</strong
Phillip J Ansell (University of Illinois Urbana-Champaign)

EATS-24 | In Person - Gaslamp B

Comparison of the Electrical Modeling and Thermal Analysis Toolbox Physics Based Model Blocks to Electrified Aircraft Propulsion Motor Test Hardware

Thursday, 15 June 16:00 - 16:20 (UTC-7) | Start:</strong
Mark E Bell (HX5, LLC), Santino Bianco, Jonathan S Litt (NASA John H Glenn Research Center)

Exploring Operational Limits of Middle Mile Cargo Operations with Advanced Air Mobility

Thursday, 15 June 16:20 - 16:40 (UTC-7) | Start:</strong
Nick Gunady, Hsun Chao, Daniel A DeLaurentis, William A Crossley (Purdue University)

Performance Analysis of an electrically powered General Aviation Aircraft using parallelized automated Mission Simulations

Thursday, 15 June 16:40 - 17:00 (UTC-7) | Start:</strong
Luca Hein, Purav Panchal, Denis Surmann, Stephan Myschik (Universitat der Bundeswehr Munchen)

Friday, 16 June

09:30 | Technical Panel

TF-22 | In Person - Cortez Hill A

DGE-07 | In Person - Gaslamp A

09:30 | Technical Paper Session

AA-50 | In Person - Cortez Hill C

Aircraft Noise Measurement with Ground Microphones: Effects of the Porous Medium under the Reflective Plate
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Vincent Pierre Blandeau, Philippe Bousquet (Airbus SAS), Ahmed Bennani, Benoît Chaigne, Toufic Abboud (IMACS)

Use of an Uninhabited Aircraft System (UAS) for Atmospheric Observations During an Acoustic Flight Test
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Jennifer Fowler, Devin K Boyle, Jacob Revesz, Jordan D Cluts (NASA)

APA-48 | In Person - Hillcrest C

Experimental validation of Integral Boundary layer coupled with a surface vorticity solver
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Shivaranjani S Sathe, Vivek Ahuja, Roy J Hartfield (Research In Flight)

Numerical Investigation on Flow Field and Aerodynamic Characteristics of Box Wing for New Convertible eVTOL
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Shusuke Honda, Makoto Sato, Nishida Ryoma (Kogakuin Daigaku), Eiji Shima (Uchu Koku Kenkyu Kaihatsu Kiko)

Development and validation of a hydrodynamic towing tank facility to study unsteady aerodynamic interactions
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Lokesh Silwal, Abbishek Gururaj, Holger Mettelsiefen, Vrishank Raghav (Auburn University)

On the Numerical Simulation of Rapid Spoiler Deflections
Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong
Sven Geisbauer (Deutsches Zentrum fur Luft- und Raumfahrt eV)

AA-51 | In Person - Cortez Hill B

Evaluation of the Noise Reduction Potential of a Krueger Flap High-Lift device via the Lattice Boltzmann Method
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Malav Soni, Roland Ewert, Jan Delfs (Deutsches Zentrum fur Luft- und Raumfahrt eV)

A Numerical Study on Noise Generation Caused by Slat Tracks
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Kazuomi Yamamoto (Japan Aerospace Exploration Agency), Kentaro Tanaka, Tohru Hirai (Ryoyu Systems Co., Ltd.), Mitsuhiro Murayama (Japan Aerospace Exploration Agency)

Aircraft Noise Reduction Study on Inboard Slat-Tip Region
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Mitsuhiro Murayama, Kazuomi Yamamoto, Masataka Kohzai (Uchu Koku Kenkyu Kaihatsu Kiko Honsha Chofu Kuko Uchu Center), Tohru Hirai (Ryoyu Systems Co., Ltd.), Yosuke Ueno, Kazuhide Isotani (Kawasaki Heavy Industries, Ltd.), Kensuke Hayashi (Mitsubishi Heavy Industries, Ltd.)

Krueger Noise Generation and its Comparison to Slat Noise
Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong
Michael Pott-Pollenske, Jan Delfs (Deutsches Zentrum fur Luft- und Raumfahrt eV)

Experimental and Computational Characterization of Canonical Side-Edge Noise
Friday, 16 June 10:50 - 11:10 (UTC-7) | Start:</strong
Satoshi Baba, Guang C Deng, Philippe Lavoie (University of Toronto Institute for Aerospace Studies), Stephane Moreau (Universite de Sherbrooke), Oksana Stalnov (Technion Israel Institute of Technology)

Experimental study on the oscillation of the shear layer of the slat cavity for 30P30N Multi-Element High-Lift Airfoil
Friday, 16 June 11:10 - 11:30 (UTC-7) | Start:</strong
Renke Wei, Yu Liu (Southern University of Science and Technology), Xiaodong Li (Beihang University)

EATS-26 | In Person - Gaslamp C

Considerations of Design Point Selection on Technological Uncertainty Quantification of NASA Parallel Hybrid-Electric Propulsion EPFD Vehicle

Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong

Turab Zaidi, Miguel Walter, Raphael H Gautier, Jaylon Uzodinma, Lloyd Teta, Fahraan Badruddin, Dimitri N Mavris (Georgia Institute of Technology)

A Comparison of Hybrid Electric Propulsion Architectures for Civil Aircraft

Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong

Jonathan Conrad Gladin, James D Kenny, Jeremy Decroix, Egemen Aydin, Andrew Burrell, Neri Ganzarski, Dimitri N Mavris (Georgia Institute of Technology)

System-Level Design Space Exploration of a Parallel Hybrid Propulsion System for a Regional Short Takeoff and Landing Turboprop Aircraft

Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong

Yu Cai, Jiacheng Xie, Joshua Brooks, Jonathan Conrad Gladin, Dimitri N Mavris (Georgia Institute of Technology)

Feasible Space Identification for Technological Uncertainty Quantification of NASA Parallel Hybrid-Electric Propulsion EPFD Vehicle

Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong

Turab Zaidi, Miguel Walter, Raphael H Gautier, Jaylon Uzodinma, Lloyd Teta, Fahraan Badruddin, Dimitri N Mavris (Georgia Institute of Technology)

Transient Analysis of sCO2 Waste Heat Recovery System in Takeoff and Climb Regime

Friday, 16 June 10:50 - 11:10 (UTC-7) | Start:</strong

Lucas Cavalcante, Ladislav Vesely (University of Central Florida), Michael F Stoia, Sho Sato (The Boeing Company), Jayanta Kapat, Erik Fernandez (University of Central Florida)

ACD-20/TF-18 | In Person - Balboa A

An Investigation into the Electrification of an Advanced Tiltrotor Concept

Wednesday, 14 June 10:10 - 10:30 (UTC-7) | Start:</strong

Geoff Chen, Julius M Vegh, Andrew Milligan (US Army Combat Capabilities Development Command Aviation & Missile Center Aeroflight-dynamics Directorate)

WEIGHT FRACTION ESTIMATION FOR EVTOL VEHICLE SIZING

Wednesday, 14 June 10:30 - 10:50 (UTC-7) | Start:</strong

SeongWoo Shim, SunHoo Park, Sang Joon Shin (Seoul National University)

EATS-34 | In Person - Harbor E

AA-52 | In Person - Harbor B

Non-linear Galerkin reduced-order models of a mixing layer

Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong

André Valdetaro Gomes Cavalieri (Instituto Tecnologico de Aeronautica)

Shock-Cell Noise from a Dual Stream Jet with Wall-Modelled Large-Eddy Simulation

Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong

Ishan Nande, Matteo Angelino, Andrew McMullan (University of Leicester College of Science and Engineering)

ZDES of jets aeroacoustics: recent progress with unstructured grids and challenges

Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong

Fabien Gand, Maxime Huet, Thomas Renaud (Office National d'Etudes et de Recherches Aerospatiales)

Assessment of Jet Flap Interaction using Wall Modelled LES

Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong

Andrew Barnes, Hao Xia, Gary J Page (Loughborough University), Andrew Au (Aircraft Research Association Ltd)

AA-53 | In Person - Harbor C

Screech and Coupling in Heated Supersonic Rectangular Twin Jets - Active Control

Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong

Ryan P Leahy, Karli Katterle, Abhi Yarlagadda, Nathan J Webb, Mo Samimy (The Ohio State University)

The phenomenon of amplitude modulation of screech tones

Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong

Christopher K Tam, Mohammed AbuShoshah (Florida State University), Bhupatindra Malla, Ephraim Gutmark (University of Cincinnati)

On the waves underpinning screech in rectangular jets

Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong

Petrônio A. S. Nogueira, Jayson Beekman, Joel Weightman, Daniel M Edgington-Mitchell (Monash University)

(continued) AA-53 | In Person - Harbor C

Numerical Study of Reducing Jet Screech and Twin Jet Coupling via Fluidic Injection
Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong
Gao Jun Wu (Stanford University), Jinah Jeun (Kungliga Tekniska Hogskolan), Sanjiva K Lele (Stanford University)

Jet-plate interaction in a supersonic screeching jet
Friday, 16 June 10:50 - 11:10 (UTC-7) | Start:</strong
Matteo Mancinelli (Universita degli Studi Roma Tre Dipartimento di Ingegneria), Stefano Meloni (Universita degli Studi della Tuscia), Roberto Camussi (Universita degli Studi Roma Tre Dipartimento di Ingegneria)

Receptivity of a nozzle lip to acoustic disturbances
Friday, 16 June 11:10 - 11:30 (UTC-7) | Start:</strong
Binhong Li, Benshuai Lyu (Peking University)

ATS-19 | In Person - Harbor D

QAR Data-Driven Calibration of Physics-based Aircraft Performance Models using a Machine-Learning Approach
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Maria del Pozo Dominguez (MCA Groupe), Javier LOPEZ LEONES (Boeing Research & Technology - Europe), Paul C Roling (Technische Universiteit Delft Faculteit Luchtvaart- en Ruimtevaarttechniek)

Autonomous Landing of eVTOL Vehicles via Deep Q-Networks
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Sabrullah Deniz, Yufei Wu, Yang Shi, Zhenbo Wang (The University of Tennessee Knoxville Tickle College of Engineering)

Imitation Learning-based Risk-aware Path Planning for Urban Autonomous UAS operations
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Jun Xiang, Jun Chen (San Diego State University)

Graph Learning based Fleet scheduling for Urban Air Mobility under Operational Uncertainties and Demand Time Series
Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong
Jhoel Witter, Steve Paul, Souma Chowdhury (University at Buffalo)

UAM Demand Capacity Modeling through Ensemble Learning
Friday, 16 June 10:50 - 11:10 (UTC-7) | Start:</strong
Sricharan Ayyalasomayajula, Steven Lavenstein, Kleoniki Vlachou, David Miller, Stephen Kozak (BlueHalo)

APA-47 | In Person - Torrey Hills B

Flight Control of the Kinzhal Missile Using Energy Deposition
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Doyle D Knight (Rutgers The State University of New Jersey)

Aerodynamic Characterization and Trajectory Simulations for a Store Separating from a Cavity
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Eric D Smith, Rajan Kumar (Florida State University), Timothy A Eymann (Air Force Research Laboratory)

Effects of Threadlike Roughness on a High-Slenderness Finned Projectile at Supersonic Speeds
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Sebastian Michalski, Robert Hruschka (French-German Research Institute of Saint-Louis), Michael Breuer (Helmut-Schmidt-Universität Hamburg), Daniel Klatt, Myriam Bastide (French-German Research Institute of Saint-Louis)

Aerodynamic Identification of Noncircular Cross-Section Missile Configurations
Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong
Mehdi Ghoreyshi, Joy J. Metzler, Nathan Shumway, Jurgen Seidel (US Air Force Academy)

Adjoint Analysis of a Cruise Missile's Wing Tolerance
Friday, 16 June 10:50 - 11:10 (UTC-7) | Start:</strong
Mina R Mankbadi (Lockheed Martin Missiles and Fire Control Orlando)

APA-49 | In Person - Hillcrest B

Passenger Aircraft Cabin Ventilation – Investigations within the Do728 Research Facility
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Daniel Schmeling, Tobias Dehne, Daniel Schiepel, Andrei Shishkin (German Aerospace Center (DLR), Institute of Aerodynamics and Flow Technology)

EATS-27 | In Person - Gaslamp D

Preliminary Design of a 5 MW Partially Superconducting Generator for NASA's SUSAN Electric Flight Demonstrator
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Thomas Tallerico, Aaron Anderson, Justin J Scheidler, Ralph Jansen, William Sixel (NASA)

(continued) EATS-27 | In Person - Gaslamp D

Design Studies on Mechanically Geared, Magnetically Geared, and Direct Drive Drivetrains for UAM Applications
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Thomas Tallerico, Jeffryes W Chapman, Andrew Smith (NASA)

Scaling Electric Machines to a Megawatt and Material Options
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Andrew Woodworth, William Sixel, Tiffany Williams, Witold K. Fuchs, Marisabel Kelly, Diana Santiago, Kristina M Vailonis, Evan J Pineda (National Aeronautics and Space Adminstration, Glenn Reserch Center), Baochau. N Nguyen (Universities Space Research Association, Cleveland OH), Paria Naghipour (HX5 LLC)

AA-54/TF-19 | In Person - Harbor A

Aerodynamic and Acoustic Interaction Effects of Adjacent Propellers in Forward Flight
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Alessandro Zarri (Von Karman Institute For Fluid Dynamics), Alexandros Koutsoukos, Francesco Avallone (Technische Universiteit Delft)

Aeroacoustic characteristics of distributed electric propulsion system in forward flight
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Burak Turhan, Hasan Kamliya Jawahar, Luke Bowen, Djamel Rezgui, Mahdi Azarpeyvand (University of Bristol)

Unsteady Multirotor Interaction Noise During Steady Flight
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Demi Zachos, Kenneth S Brentner, Eric Greenwood (The Pennsylvania State University)

PGC-07/HSABP-13 | In Person - La Jolla A

EATS-38 | In Person - Harbor F

APA-46 | In Person - Hillcrest D

Overview of the X-59 Quesst Phase I Mission and Air Data Probe Calibration Efforts
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jeff D Flamm, Courtney Spells Winski, Alaa A Elmiligui, Michael D Bozeman, Lee Mears (NASA Langley Research Center), Kurtis Long (NASA Ames Research Center), David J Friedlander (NASA)

X-59 Air Data Probe Calibration Wind Tunnel Test
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Courtney Spells Winski, Michael D Bozeman, Alaa A Elmiligui, Jeffrey Flamm, Lee Mears (NASA Langley Research Center), Kurtis Long (NASA Ames Research Center), David J Friedlander (NASA John H Glenn Research Center)

This paper documents the development of neural net algorithms used to calibrate the X-59 air data system nose probe, using wind tunnel data.
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Kurtis R Long, Colette N Guy (NASA Armstrong Flight Research Center), Courtney S Winski, Alaa A Elmiligui, Michael D Bozeman (NASA Langley Research Center), David J Friedlander (NASA Glenn Research Center), Jeff D Flamm (NASA Langley Research Center)

Measurement Accuracy and Uncertainty Analysis of the X-59 Air Data Probe Calibration Test Entry One
Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong
David J Friedlander, Michael D Bozeman, Alaa A Elmiligui, Jeffrey Flamm, Lee Mears, Courtney S Winski, Kurtis Long (NASA)

FUN3D and USM3D Analyses in Support of the X-59 Pitot Probe Wind Tunnel Test
Friday, 16 June 10:50 - 11:10 (UTC-7) | Start:</strong
Michael D Bozeman, Alaa A Elmiligui, Jeffrey Flamm, Lee Mears, Courtney S Winski (NASA Langley Research Center)

EATS-28 | In Person - Golden Hill A

Optimal Route Planning and Power Management for Hybrid UAV Using A* Algorithm
Friday, 16 June 09:30 - 09:50 (UTC-7) | Start:</strong
Jacob H Jadischke, Mitch Wolff (Wright State University), Jon Zumberge, Brandon Hencey (Air Force Research Laboratory)

Graph-based Hierarchical Control of Electrified Aircraft Systems with Automated Timescale Decomposition
Friday, 16 June 09:50 - 10:10 (UTC-7) | Start:</strong
Yin Yu, Seho Park, Daning Huang, Herschel Pangborn (The Pennsylvania State University)

Total Energy Flight Control Architecture Optimization for a Tilt-Wing Aircraft
Friday, 16 June 10:10 - 10:30 (UTC-7) | Start:</strong
Anthony M Comer, Imon Chakraborty (Auburn University)

Full-Envelope Closed-Loop Flight Control Design and Simulation of a Tiltwing VTOL Aircraft
Friday, 16 June 10:30 - 10:50 (UTC-7) | Start:</strong
Leo Panish, Marko Bacic (University of Oxford)

13:00 | Technical Paper Session

AA-55 | In Person - Cortez Hill B

Direct Numerical Simulation of Installation Effects on Control Diffusion Airfoil Noise
Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong
Ziyang Zhou, Stephane Moreau (Universite de Sherbrooke), Marlène Sanjosé (Ecole de technologie superieure Departement de genie mecanique)

Comparison of Leading Edge Noise Measurements of an Airfoil in Two Wind Tunnel Facilities
Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong
Roman Kisler, Chaoyang Jiang (University of New South Wales), Vincent Valeau (Universite de Poitiers), Danielle Moreau, Charitha de Silva, Con J Doolan (University of New South Wales)

Investigation of the far field pressure pulse generated by vortex-wedge interaction using Howe's acoustic analogy
Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong
Marios I Spiropoulos, Florent Margnat, Vincent Valeau, Peter Jordan (Universite de Poitiers)

APA-51 | In Person - Hillcrest C

Numerical Simulation of An Aspect Ratio 13.5 Common Research Model with Trailing Edge Mini-Flaps
Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong
Juntao Xiong (KBR), Nhan T Nguyen (NASA Ames Research Center), Robert E Bartels (NASA Langley Research Center)

Wingtip Vortices Characterization with Perspective Upright Correction
Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong
Jia Cheng Chan, Henrik Hesse (University of Glasgow), Peng Cheng Wang (Singapore Institute of Technology)

Aerodynamics Flapping-Flight Robotic Bird using Unsteady Lifting-Line Method
Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong
Harry W Hoeijmakers (Universiteit Twente)

Simulations of Mach 0.8 Transonic Truss-Braced Wing Aircraft Aerodynamics at High Angles of Attack
Friday, 16 June 14:00 - 14:20 (UTC-7) | Start:</strong
Juntao Xiong (KBR), Nhan T Nguyen (NASA Ames Research Center)

EATS-29 | In Person - Gaslamp B

HIL testing of a Real-Time Propulsion, Thermal and Flight Controller for Hybrid-Electric Regional Aircraft Applications
Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong
Anna Anna Misley, Matilde D'Arpino, Prashanth Ramesh (The Ohio State University)

Surface Heat Exchanger Assessment for Battery Powered Aircrafts
Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong
Paul König, Klaus Höschler, Venkata Brahma Teja Haridasu (Brandenburgische Technische Universitat Cottbus-Senftenberg)

Control logic for a direct hybrid-electric powertrain on a integrated modular avionics device
Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong
Robin Fonk, Tobias Graf, Sven Paessler, Christiane Bauer, Caroline Willich (Universitat Ulm)

High Speed Aircraft Power Generation with LNG combined Power and Thermal Management System
Friday, 16 June 14:00 - 14:20 (UTC-7) | Start:</strong
Trevor J Kramer, Rory Roberts, Aaron Bain, Jeff Webster, Jimmy Meacham (Tennessee Tech University)

Dimensioning of a direct fuel cell battery hybrid system for an all-electric aircraft
Friday, 16 June 14:20 - 14:40 (UTC-7) | Start:</strong
Tobias Graf, Robin Fonk, Christiane Bauer, Caroline Willich (Universitat Ulm)

AA-56 | In Person - Harbor B

Noise Reduction by the Jet Mach Number Effect
Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong
Junhui Liu (US Naval Research Laboratory)

Jet-noise reduction by streak-generating tabs
Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong
Filipe Ramos Amaral, Barbara Hasparyk, Anton Lebedev, Peter Jordan (Institut Pprime), André V. G. Cavalieri (Instituto Tecnologico de Aeronautica), Igor Maia (ISAE-SUPAERO)

Comparative High-Fidelity Studies of Excited Supersonic Rectangular vs. Round Jet Noise Control
Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong
Michael Marques Goncalves, Benjamin J. Malczewski, Vladimir V Golubev, Anastasios S Lyrintzis, Reda R Mankbadi (Embry-Riddle Aeronautical University), Sam Salehian (Tuskegee University)

(continued) AA-56 | In Person - Harbor B

Resolvent analysis based jet-noise-reduction of a biconical tactical jet nozzle.
Friday, 16 June 14:00 - 14:20 (UTC-7) | Start:</strong
Sandeep Ravikumar Murthy, Daniel J Bodony (University of Illinois Urbana-Champaign)

Actuation Effects on the Acoustic, Hydrodynamic and Thermal Components of a Supersonic Shear Layer
Friday, 16 June 14:20 - 14:40 (UTC-7) | Start:</strong
Chitrarth Prasad, Datta V Gaitonde (The Ohio State University)

Jet Noise Reduction: Part I, A Fresh Start
Friday, 16 June 14:40 - 15:00 (UTC-7) | Start:</strong
Christopher K Tam (Florida State University), Fang Q Hu (Old Dominion University), Mohammed AbuShoshah (Florida State University)

ATS-20 | In Person - Harbor D

Predicting mental states in a flight simulator using multiple forms of sensor data
Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong
Ibrahim Alreshidi (University of Hail), Satendra Yadav, Irene Moulitsas, Karl Jenkins (Cranfield University)

Search for Under-Utilized Airspace for eXtensible Traffic Management (xTM) Operations Based on Air Traffic Patterns
Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong
Jinhua Li (Universities Space Research Association), Min Xue, Paul U Lee (NASA Ames Research Center), Priyank Pradeep (Universities Space Research Association)

Bird Movement Prediction Using Long Short-Term Memory Networks to Prevent Bird Strikes with Low Altitude Aircraft
Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong
Elaheh Sabziyan Varnousfaderani, Syed Arbab Mohd Shihab (Kent State University)

Preliminary Exploration of Clustering Algorithms to Categorize U.S. Airports by Air Cargo Operations
Friday, 16 June 14:00 - 14:20 (UTC-7) | Start:</strong
Derek Thipphavong (Western Governors University)

HSABP-11/PGC-04 | In Person - Harbor C

AA-57/TF-20 | In Person - Harbor A

Hovering Medium Sized UAM Rotor Noise Experiments and Multifidelity Predictions
Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong
Alexander Truong (Bell Textron Inc), Chloe Johnson, Jayant Sirohi (The University of Texas at Austin Cockrell School of Engineering)

Acoustic Liners Integrated in Rotor Blades of Unmanned Air Vehicles
Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong
Santiago Montoya-Ospina (ISAE-SUPAERO), Frank Simon (Office National d'Etudes et de Recherches Aerospatiales), Romain Gojon, Hélène Parisot-Dupuis (ISAE-SUPAERO)

Acoustic Predictions for Side-by-Side Air Taxi in Full Configuration
Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong
Jared Delatorre Wakefield Sagaga, Seongkyu Lee (University of California Davis)

Aerodynamic and Sound-Scattering Effects in Rotor-Strut Interaction Noise of Small-Size Drones
Friday, 16 June 14:00 - 14:20 (UTC-7) | Start:</strong
Michel Roger (Ecole Centrale de Lyon), Emma Vella (Institut National des Sciences Appliquees de Lyon), Jose Rendon, Stephane Moreau (Sherbrooke University)

Aeroacoustics of drones
Friday, 16 June 14:20 - 14:40 (UTC-7) | Start:</strong
Jean-Samuel Lauzon, Jonathan Vincent, Yann Pasco, François Grondin, Stéphane Moreau (Universite de Sherbrooke Faculte de Genie)

PGC-06/HSABP-14 | In Person - La Jolla A

EATS-35 | In Person - Harbor F

APA-50 | In Person - Hillcrest D

Further Validation of the J-Factor Method for Predicting Store Trajectory Repeatability in Cavity Flow
Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong
Jacob Baughman, Christopher Coley (US Air Force Academy), Bruce A Jolly, Wali Aziz (Air Force Seek Eagle Office)

Experimental Study of an Air-to-Ground Store Release from a Jet-Fighter Weapons Bay in Transonic Flow Conditions
Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong
Hadar Ben-Gida (Israeli Air Force)

(continued) APA-50 | In Person - Hillcrest D

Jq, Jw-factor Theory & Explanation for Predicting Store Rotation Repeatability

Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong

Bruce A Jolly, Wali Aziz (United States Air Force SEEK EAGLE Office)

EATS-30 | In Person - Gaslamp D

Static testing of a conductively-cooled, high temperature superconducting rotor for a 1.4 MW electric machine in a thermal vacuum chamber

Friday, 16 June 13:00 - 13:20 (UTC-7) | Start:</strong

Justin J Scheidler, Erik Stalcup, Thomas Tallerico (NASA Glenn Research Center), Tysen Mulder (Blue Origin LLC), William Torres (Wolf Creek Federal Services), Kirsten Duffy (The University of Toledo)

Evaluation of Switching Characteristics of High Breakdown Voltage GaN-PSJ Transistors at Liquid Nitrogen Temperature

Friday, 16 June 13:20 - 13:40 (UTC-7) | Start:</strong

Manato Deki, Hirotaka Kawarabayashi, Yoshio Honda, Hiroshi Amano (Nagoya University)

High Purity Aluminum in Cryogenic Motors for Electric Aircraft

Friday, 16 June 13:40 - 14:00 (UTC-7) | Start:</strong

Hyuk J Kwon, Mike D Sumption (The Ohio State University), Timothy J Haugan (Air Force Research Laboratory), Edward Collings (The Ohio State University)

16:00 | Technical Paper Session

EATS-31 | In Person - Gaslamp C

Evaluation of Technology Gravimetric Index Targets for Zero Emissions Regional Flight

Friday, 16 June 16:00 - 16:20 (UTC-7) | Start:</strong

Artem Kolisnichenko (Leonardo SpA)

Simulation of a hybrid electric propulsion used to reduce aircraft asymmetry following a failure.

Friday, 16 June 16:20 - 16:40 (UTC-7) | Start:</strong

Ana TRUC-HERMEL, Christophe MAURY (SAFRAN SA)

Benefit Reassessment of Parallel Hybrid Turboprops

Friday, 16 June 16:40 - 17:00 (UTC-7) | Start:</strong

Michael Sielemann (Modelon Deutschland GmbH), Jesse Gohl (Modelon, Inc.), Ivar Torstensson (Modelon AB), Dimitrios Bermperis, Konstantinos G Kyprianidis (Malardalens universitet)

EATS-32 | In Person - Gaslamp D

Development of Ultra High Power Density Liquid Metal Cooled Inverter

Friday, 16 June 16:00 - 16:20 (UTC-7) | Start:</strong

Junchong Fan, Zhining Zhang, Siddhant Shah, Jin Wang, Anant K Agarwal (The Ohio State University)

An AC Solid-State Relay Unit for Aerospace Generator Step-Load Testing

Friday, 16 June 16:20 - 16:40 (UTC-7) | Start:</strong

Chase Kitzmiller (UES, Inc.), Kevin J. Yost (Air Force Research Laboratory Aerospace Systems Directorate), William Perdikakis (PC Krause and Associates)

Power electronics design for a 50 PAX hybrid-electric regional aircraft

Friday, 16 June 16:40 - 17:00 (UTC-7) | Start:</strong

Markus Meindl (Friedrich-Alexander-Universitat Erlangen-Nurnberg), Florian Hilpert (Fraunhofer-Institut fur Integrierte Systeme und Bauelementetechnologie IISB), Martin Maerz (Friedrich-Alexander-Universitat Erlangen-Nurnberg)