

**Monday**

**Monday, 20 May 2019**

1-AA-1 0830 - 1000 hrs	AIAA Aeroacoustics Technical Committee Meeting	Committee Room 3
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**Monday, 20 May 2019**

2-PLNRY-1 1030 - 1200 hrs	Opening and Keynotes	Auditorium
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**Monday, 20 May 2019**

3-LUNCH-1 1200 - 1300 hrs	Monday Lunch	Foyer - Aula Conference Centre
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**Monday, 20 May 2019**

4-A/FDI-1	Acoustic/Fluid Dynamics Interactions I	Rhythm
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Chaired by: N. MURRAY, The University of Mississippi and W. SCHROEDER, RWTH AACHEN UNIVERSITY, Institute of Aerodynamics

1300 hrs AIAA-2019-2400 <b>Numerical investigation of noise generation by rod-airfoil configuration using DES (SU2) and the FW-H analogy</b> S. Sharma, T. Geyer, Brandenburg University of Technology, Cottbus, Germany; E. Sarradj, Technical University of Berlin, Berlin, Germany; H. Schmidt, Brandenburg University of Technology, Cottbus, Germany	1330 hrs AIAA-2019-2401 <b>Applications of an Iterative Wiener-Hopf Method to Aeroacoustics</b> M. Priddin, A. Kisil, L. Ayton, University of Cambridge, Cambridge, United Kingdom	1400 hrs AIAA-2019-2402 <b>Resolvent analysis applied to acoustic analogies</b> L. Abreu, P. Nogueira, M. Nilton, A. Cavalieri, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil	1430 hrs AIAA-2019-2403 <b>Fundamental Studies of the Mechanisms of Pressure Shielding</b> A. Gonzalez, S. Glegg, Florida Atlantic University, Boca Raton, FL; N. Hari, W. Devenport, Virginia Polytechnic Institute and State University, Blacksburg, VA
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**Monday, 20 May 2019**

5-A/HLN-1	Airframe/High-Lift Noise I	Committee Room 3
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Chaired by: C. DOOLAN, The University of New South Wales and D. REIS, Embraer SA

1300 hrs AIAA-2019-2404 <b>Experimental Study on Comparison on Noise Characteristics of Noise Reduction Leading-edge Slats</b> W. Lu, P. Liu, H. Guo, Beihang University, Beijing, China	1330 hrs AIAA-2019-2405 <b>Slat Noise Simulation on Unstructured Grid with Reduced Dissipation Approach</b> R. Sakai, T. Ishida, M. Murayama, Y. Ito, K. Yamamoto, Japan Aerospace Exploration Agency (JAXA), Chofu, Japan	1400 hrs AIAA-2019-2406 <b>A Study on the 3D Effects of Slat Cove Fillers</b> D. Reis, E. Coelho, Embraer, São José dos Campos, Brazil; L. Lima Pereira, F. Catalano, University of São Paulo, São Carlos, Brazil; L. Lima, Embraer, São José dos Campos, Brazil	1430 hrs AIAA-2019-2407 <b>Experimental investigation on aerodynamic noise characteristics of slat deflection rotating around a fixed axis</b> X. Geng, H. Guo, T. Hu, L. Li, P. Liu, Beihang University, Beijing, China	1500 hrs AIAA-2019-2408 <b>Experimental Investigation of Slat Noise Attenuation with Trailing Edge Bending Deformation</b> Y. Liu, H. Guo, T. Hu, Q. Qu, P. Liu, Beihang University, Beijing, China
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**Monday, 20 May 2019**

6-ATT-1	Advanced Testing Techniques I	Frans van Hasselt Room
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Chaired by: R. CAMUSSI, University Roma Tre- DIMI and M. TUINSTRA, Nationaal lucht-en Ruimtevaart Lab

1300 hrs AIAA-2019-2409 <b>Acoustic Location by Tomographic Reconstruction</b> M. Tuinstra, M. van der Meulen, National Aerospace Centre (NLR), Emmeloord, The Netherlands	1330 hrs AIAA-2019-2410 <b>High-resolution Acoustical Imaging for Rotating Acoustic Source Based on Compressive Sensing Beamforming</b> H. Bu, Hong Kong University of Science and Technology, Hong Kong, Hong Kong; X. Huang, Peking University, Beijing, China; X. Zhang, Hong Kong University of Science and Technology, Hong Kong, Hong Kong	1400 hrs AIAA-2019-2411 <b>Measurements of the Effects of Array Pattern Size and Windscreen Material on the Performance of a Wall-mounted Phased Microphone Array in a Hard-wall Wind Tunnel Using Enhanced In-flow Reference Sources</b> W. Horne, N. Burnside, NASA Ames Research Center, Moffett Field, CA	1430 hrs AIAA-2019-2412 <b>Experimental Study of the Frequency Response of Semi-Infinite Line Probes</b> S. Sinha, W. Schuster, Honeywell International, Inc., Phoenix, AZ	1500 hrs AIAA-2019-2413 <b>Laboratory scale testing of ignition overpressure for space vehicle launch pad environments</b> C. Tinney, J. Valdez, H. Meier, University of Texas, Austin, Austin, TX; J. Ruf, NASA Marshall Space Flight Center, Huntsville, AL
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Monday, 20 May 2019			
7-CAA-1	Computational Aeroacoustics I		Theater Hall
Chaired by: C. BAILLY, Ecole Centrale de Lyon and X. LI, Beihang University			
1300 hrs No Presentation	1400 hrs AIAA-2019-2414 Optimized Runge-Kutta (LDDRK) schemes with non-constant-amplitude waves A. Petronilia, E. Brambley, University of Warwick, Coventry, United Kingdom	1430 hrs AIAA-2019-2415 Evaluation of the Lattice Boltzmann Method for Aeroacoustic Simulations of Industrial Air Systems S. Bocquet, CS Communications & Systems, Toulouse, France; D. Ricot, Renault, Guyancourt, France; A. Sengissen, Airbus, Toulouse, France; C. Vincent-Viry, B. Demory, M. Henner, Valeo, Le Mesnil Saint-Denis, France; et al.	1500 hrs AIAA-2019-2416 Investigating the Numerical Stability of a Time-Domain Boundary Integral Equation with Impedance Boundary Condition for Simulating Sound Absorption of Lined Bodies M. Rodio, F. Hu, Old Dominion University, Norfolk, VA; D. Nark, NASA Langley Research Center, Hampton, VA

Monday, 20 May 2019			
8-DA-1	Duct Acoustics I		Lecture Room C
Chaired by: H. BODEN, KTH and Y. CHEN, National University of Defense Technology			
1300 hrs AIAA-2019-2417 Duct azimuthal and radial modal detection on the CFD modeling of UHBR engine tonal noise S. Fauqueux, ONERA, Châtillon, France	1330 hrs AIAA-2019-2418 noisyduck: an open-source Python tool for computing eigenmode decompositions of duct flows N. Wukie, University of Cincinnati, Cincinnati, OH; D. Lindblad, N. Andersson, Chalmers University of Technology, Göteborg, Sweden	1400 hrs AIAA-2019-2419 Duct modal detection tool to characterize the noise source generated by an air pump S. Fauqueux, R. Davy, ONERA, Châtillon, France; F. Mery, ONERA, Toulouse, France	1500 hrs AIAA-2019-2421 Numerical simulations based evidence of impingement free sound production during vortex-nozzle interaction in solid rocket motors L. Hirschberg, CentraleSupélec, Gif-sur-Yvette, France; S. Hulshoff, Delft University of Technology, Delft, The Netherlands; T. Schuller, Fluid Mechanics Institute of Toulouse (IMFT), Toulouse, France; C. Schram, von Kármán Institute for Fluid Dynamics, Rhode-Saint-Genèse, Belgium; J. Collinet, ArianeGroup, Les Mureaux, France

Monday, 20 May 2019			
9-GA/LSF-1	General Acoustics & Loads/Sonic Fatigue I		Blue Room
Chaired by: F. ALVI, Florida State University and C. VANDERCREEK, University of Maryland			
1300 hrs AIAA-2019-2422 Acoustic Diode Metamaterial for Sound Absorption G. Bennett, R. Hossain, A. McKay, E. Ross, Trinity College Dublin, Dublin, Ireland	1330 hrs AIAA-2019-2423 Membrane Metamaterials For Use In Broadband Noise Attenuation G. Bennett, E. Ross, R. Hossain, Trinity College Dublin, Dublin, Ireland	1400 hrs AIAA-2019-2424 Acoustic Cloaking in Flows by Topology Optimization Method Z. Ma, X. Huang, Peking University, Beijing, China	1430 hrs AIAA-2019-2425 Deterministic Model of Acoustic Wave Propagation in a Cavity C. Vandercreek, Delft University of Technology, Delft, The Netherlands; P. Sijtsma, PSA3, Wezep, The Netherlands; M. Snellen, D. Ragni, F. Avallone, D. G. Simons, Delft University of Technology, Delft, The Netherlands

Monday, 20 May 2019			
10-IEFA-1	Integration Effects and Flight Acoustics I		Committee Room 2
Chaired by: L. BRUSNIAK, The Boeing Company and I. CLARK, NASA Langley Research Center			
1300 hrs AIAA-2019-2426 Fly-over noise source localization during acoustic flight tests of advanced passenger aircraft M. Zaytsev, V. Kopiev, TsAGI, Moscow, Russia	1330 hrs AIAA-2019-2427 Far Term Noise Reduction Roadmap for the NASA D8 and Single-Aisle Tube-and-Wing Aircraft Concepts I. Clark, R. Thomas, NASA Langley Research Center, Hampton, VA; Y. Guo, NEAT Consulting, Seal Beach, CA	1400 hrs AIAA-2019-2428 Far Term Noise Reduction Technology Roadmap for a Large Twin-Aisle Tube-and-Wing Subsonic Transport J. June, I. Clark, R. Thomas, NASA Langley Research Center, Hampton, VA; Y. Guo, NEAT Consulting, Seal Beach, CA	1430 hrs AIAA-2019-2429 Fan Noise Boundary-Layer Ingestion Installation Effects for NOVA Aircraft Configuration G. Romani, Q. Ye, F. Avallone, D. Ragni, D. Casalino, Delft University of Technology, Delft, The Netherlands

Monday, 20 May 2019				
11-JA-1		Jet Aeroacoustics I		Senate Hall
Chaired by: A. LYRINTZIS, Embry Riddle Aeronautical University and D. JUVE, Ecole Centrale de Lyon				
1300 hrs AIAA-2019-2430 <b>Jet-plate interaction tones relevant to over-the-wing engine mount concept</b> C. Tam, S. Chandramouli, Florida State University, Tallahassee, FL	1330 hrs AIAA-2019-2431 <b>The dominating influence of large-scale jet motion on jet-wing interaction noise</b> U. Michel, F. Kramer, C. Mockett, CFD Software GmbH, Berlin, Germany	1400 hrs AIAA-2019-2432 <b>Validation of a Jet-Surface Interaction Noise Model in Flight</b> M. Dawson, J. Lawrence, R. Self, University of Southampton, Southampton, United Kingdom; M. Kingan, University of Auckland, Auckland, New Zealand	1430 hrs AIAA-2019-2433 <b>Nonlinear jet-flap interactions: a dynamical-systems analysis</b> O. Semeraro, National Center for Scientific Research (CNRS), Orsay, France; P. Jordan, V. Jaunet, National Center for Scientific Research (CNRS), Poitiers, France; F. Lusseyran, National Center for Scientific Research (CNRS), Orsay, France	1500 hrs AIAA-2019-2434 <b>Azimuthal variation of Near Field Pressure Fluctuations due to Chevron in Compressible Jet</b> S. Nikam, K J Somaiya College of Engineering, Mumbai, India; S. Sharma, IIT Bombay, Mumbai, India
Monday, 20 May 2019				
12-A/FDI-2		Acoustic/Fluid Dynamics Interactions II		Rhythm
Chaired by: D. GELY, ONERA and P. WOODHEAD, Brunel University London				
1600 hrs AIAA-2019-2435 <b>Experimental Investigation of Novel Porous-serrated Treatments on Airfoil Trailing Edge Noise Reduction</b> C. Jiang, J. Fischer, D. Moreau, C. Doolan, University of New South Wales, Sydney, Australia	1630 hrs AIAA-2019-2436 <b>On the Double-Rooted Trailing Edge Serration</b> P. Woodhead, T. Chong, Brunel University London, Uxbridge, United Kingdom; P. Joseph, University of Southampton, Southampton, United Kingdom; J. Wissink, Brunel University London, Uxbridge, United Kingdom	1700 hrs AIAA-2019-2437 <b>Effect of Leading-Edge Serrations on Trailing-Edge-Bluntness Vortex-Shedding Noise Radiation</b> S. Hasheminejad, T. Chong, Brunel University London, London, United Kingdom; P. Joseph, G. Lacagnina, University of Southampton, Southampton, United Kingdom		
Monday, 20 May 2019				
13-A/HLN-2		Airframe/High-Lift Noise II		Committee Room 3
Chaired by: T. KOZUBSKAYA, Keldysh Institute of Applied Mathematics				
1600 hrs AIAA-2019-2438 <b>Predictions of Slat Noise from the 30P30N at High Angles of Attack using Zonal Hybrid RANS-LES</b> J. Housman, G. Stich, J. Kocheemoolayil, C. Kiris, NASA Ames Research Center, Moffett Field, CA	1630 hrs AIAA-2019-2439 <b>Numerical Investigation of High-lift Airfoil Fitted with Slat Cove Filler</b> H. Kamliya Jawahar, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom; C. Silva, Embraer, São José dos Campos, Brazil	1700 hrs AIAA-2019-2440 <b>Aeroacoustic Performance of High-lift Airfoil with Slat Cove Fillers</b> H. Kamliya Jawahar, S. Showkat Ali, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom; C. Silva, Embraer, São José dos Campos, Brazil		
Monday, 20 May 2019				
14-ATT-2		Advanced Testing Techniques II		Frans van Hasselt Room
Chaired by: R. MERINO-MARTINEZ, Delft University of Technology and E. VAN BOKHORST				
1600 hrs AIAA-2019-2441 <b>Detection and Visualization of Fan Noise Sources and Excited Modes in a Circular Duct</b> G. Herold, E. Saradi, Technical University of Berlin, Berlin, Germany	1630 hrs AIAA-2019-2442 <b>Aircraft Characterization with Ground Boards and Inverted microphones</b> F. Mobleby, Air Force Research Laboratory, Wright-Patterson AFB, OH	1700 hrs AIAA-2019-2443 <b>Design and performance of an acoustic transparent window</b> E. van Bokhorst, M. Tuinstra, National Aerospace Centre (NLR), Marknesse, The Netherlands		
Monday, 20 May 2019				
15-CAA-2		Computational Aeroacoustics II		Theater Hall
Chaired by: W. SCHROEDER, RWTH AACHEN UNIVERSITY, Institute of Aerodynamics and T. KUHN, IAG				
1600 hrs AIAA-2019-2444 <b>Data-Driven RANS Closures for Trailing Edge Noise Predictions</b> O. Wilsby, R. Sandberg, University of Melbourne, Melbourne, Australia	1630 hrs AIAA-2019-2445 <b>A Hybrid RANS/LES for Automotive Gap Noise Simulations</b> L. Erbig, M. Maihöfer, Daimler AG, Sindelfingen, Germany	1700 hrs AIAA-2019-2446 <b>Comparison of GPU CABARET, RANS and RANS/ILES High Resolution Method Solutions for the CoJen Jet Noise Experiment</b> A. Markesteyn, GPU-prime, Ltd., Cambridge, United Kingdom; S. Karabasov, V. Gryazev, Queen Mary University of London, London, United Kingdom; R. Ayupov, L. Benderskiy, D. Lyubimov, Central Institute of Aviation Motors, Moscow, Russia		

<b>Monday, 20 May 2019</b>			
<b>16-DA-2</b>	<b>Duct Acoustics II</b>		<b>Lecture Room C</b>
Chaired by: S. RIENSTRA, Technische Universiteit Eindhoven and A. WILSON			
1600 hrs AIAA-2019-2447 <b>Propagation of Acoustic Waves in Ducts with Axially-Varying Parameters Using the Parabolized Stability Equations</b> T. Fava, A. Cavalieri, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil	1630 hrs AIAA-2019-2448 <b>Non-Linear Acoustic Propagation in Circumferentially Non-Uniform Mean Flow</b> A. Wilson, University of Southampton, Southampton, United Kingdom	1700 hrs AIAA-2019-2449 <b>Modelling of boundary layer effects on the propagation of buzz-saw noise in lined ducts</b> A. James, R. Sugimoto, A. McAlpine, R. Astley, A. Wilson, University of Southampton, Southampton, United Kingdom	
<b>Monday, 20 May 2019</b>			
<b>17-GA/LSF-2</b>	<b>General Acoustics &amp; Loads/Sonic Fatigue II</b>		<b>Blue Room</b>
Chaired by: I. CLARK, NASA Langley Research Center and G. YAKHINA			
1600 hrs AIAA-2019-2450 <b>Analytical, numerical and experimental investigation of trailing-edge noise reduction on a Controlled Diffusion airfoil with serrations</b> S. Moreau, M. Sanjosé, University of Sherbrooke, Sherbrooke, Canada; B. Lyu, L. Ayton, University of Cambridge, Cambridge, United Kingdom	1630 hrs AIAA-2019-2451 <b>Acoustic and aerodynamic investigation of passive trailing-edge treatments for the Controlled-Diffusion airfoil</b> G. Yakhina, B. Dignou, P. Jaiswal, P. Guillemot-Simon, Y. Pasco, S. Moreau, University of Sherbrooke, Sherbrooke, Canada	1700 hrs AIAA-2019-2452 <b>Liner-type porous treatments for the flat plate trailing edge</b> G. Yakhina, B. Dignou, P. Jaiswal, Y. Pasco, S. Moreau, University of Sherbrooke, Sherbrooke, Canada	
<b>Monday, 20 May 2019</b>			
<b>18-JA-2</b>	<b>Jet Aeroacoustics II</b>		<b>Senate Hall</b>
Chaired by: D. MCLAUGHLIN and E. PICKERING			
1600 hrs AIAA-2019-2453 <b>Large-Eddy Simulation of Installed Jet Flows and Acoustics</b> Z. Wang, P. Tucker, University of Cambridge, Cambridge, United Kingdom	1630 hrs AIAA-2019-2454 <b>Eddy viscosity for resolvent-based jet noise models</b> E. Pickering, G. Rigas, California Institute of Technology, Pasadena, CA; D. Sipp, ONERA, Meudon, France; O. Schmidt, University of California, San Diego, La Jolla, CA; T. Colonius, California Institute of Technology, Pasadena, CA		
<b>Monday, 20 May 2019</b>			
<b>19-SS/ANT-1</b>	<b>Special Session on NASA FDC Airframe Noise Flight Tests I</b>		<b>Lecture Room A</b>
Chaired by: J. DELFS, DLR - German Aerospace Center and M. KHORRAMI, NASA Langley Research Center			
1600 hrs Oral Presentation <b>NASA Airframe Noise Reduction and Prediction: ARM Flight Tests and Companion Simulations</b> M. Khorrami, NASA Langley Research Center, Hampton, VA	1630 hrs AIAA-2019-2455 <b>Flight-Test Evaluation of Landing Gear Noise Reduction Technologies</b> M. Khorrami, D. Lockard, W. Humphreys, NASA Langley Research Center, Hampton, VA; P. Ravetta, AVEC, Inc., Blacksburg, VA	1700 hrs AIAA-2019-2456 <b>Assessment of Airframe Noise Reduction Technologies based on EPNL from Flight Tests</b> P. Ravetta, D. Wisda, AVEC, Inc., Blacksburg, VA; M. Khorrami, NASA Langley Research Center, Hampton, VA; T. Van de Ven, Analytical Mechanics Associates, Inc., Hampton, VA	

<b>Monday, 20 May 2019</b>			
<b>20-WS/HAWT-1</b> <b>1600 - 1730 hrs</b>	<b>Hybrid Anechoic Wind Tunnel Technology I</b>		<b>Lecture Room D</b>
This workshop is dedicated to hybrid anechoic wind tunnels, which are wind tunnels that use tensioned fabric (often Kevlar) to contain the test flow and separate it from surrounding anechoic chambers. The goals of the workshop are to facilitate the exchange of technical information on the development and operation of current and planned facilities, to identify new opportunities and technologies of relevance, to discuss gaps in current understanding, and to build a consensus for best practices and standard test cases.			
This session includes 10-minute oral presentations on facility development and characterization:			
Christian Back, Andreas Fischer and Oliver Ackermann, DTU "Design and validation of the aeroacoustic setup of the Poul la Cour Tunnel"	Hiroki Ura and Kazu Yamamoto, JAXA "JAXA's aerodynamic and acoustic correction Methods for a Kevlar wall test section"	Con Doolan and Alex Skvortsov, UNSW & DSTG "Australian Aeroacoustic Measurements using a Kevlar Wall System"	Mate Szoke and William Devenport, Virginia Tech "Acoustic impulse calibration of the VT Stability Tunnel Kevlar Test Section"
and on applications:			
Mahdi Azarpeyvand, U. Bristol "Airfoil near-field comparison for a test section with and without Kevlar wall"	Daniele Ragni and Salid Luesutthiviboon, TU Delft "Turbulent boundary-layer trailing-edge noise measurements in closed test-sections with hybrid Kevlar and melamine installations"	Lou Cattafesta, Florida State "Comparison of high-lift measurements made in Kevlar and hardwall test sections"	Hao Guo, Beihang U. "Aeroacoustic measurements of high-lift devices in D5 wind tunnel"

<b>Monday, 20 May 2019</b>			
<b>21-A/FDI-3</b>	<b>Acoustic/Fluid Dynamics Interactions III</b>		<b>Orange Room</b>
Chaired by: D. GELY, ONERA and P. WOODHEAD, Brunel University London			
1800 hrs AIAA-2019-2457 <b>On the spatial-temporal development of synthetic turbulent boundary layer on a serrated trailing edge</b> A. Juknevičius, T. Chong, Brunel University London, London, United Kingdom	1830 hrs AIAA-2019-2458 <b>3D-printed Perforated Trailing Edges for Broadband Noise Abatement</b> A. Rubio Carpio, F. Avallone, D. Ragni, M. Snellen, S. van der Zwaag, Delft University of Technology, Delft, The Netherlands	1900 hrs AIAA-2019-2459 <b>Trailing edge noise reduction using porous treatments</b> S. Showkat Ali, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom; C. Ilario da Silva, Embraer, São José dos Campos, Brazil	

<b>Monday, 20 May 2019</b>			
<b>22-A/HLN-3</b>	<b>Airframe/High-Lift Noise III</b>		<b>Committee Room 3</b>
Chaired by: T. KOZUBSKAYA, Keldysh Institute of Applied Mathematics			
1800 hrs AIAA-2019-2460 <b>Assessment of Aeroacoustic Simulations of the High-Lift Common Research Model</b> D. Lockard, V. Vatsa, M. O'Connell, M. Choudhari, NASA Langley Research Center, Hampton, VA	1830 hrs AIAA-2019-2461 <b>Numerical Simulation of Slat Noise of High-Lift Devices Using Immersed Boundary Method on Unstructured Meshes</b> T. Kozubskaya, I. Abalakin, A. Duben, A. Gorobets, N. Zhdanova, Russian Academy of Sciences, Moscow, Russia	1900 hrs AIAA-2019-2462 <b>Aeroacoustic prediction of three-element high-lift airfoil using a grey-area enhanced DES model</b> M. Fuchs, L. Fließbach, C. Mockett, F. Kramer, T. Knacke, F. Thiele, CFD Software GmbH, Berlin, Germany	

<b>Monday, 20 May 2019</b>			
<b>23-ATT-3</b>	<b>Advanced Testing Techniques III</b>		<b>Frans van Hasselt Room</b>
Chaired by: R. MERINO-MARTINEZ, Delft University of Technology and E. VAN BOKHORST			
1800 hrs AIAA-2019-2463 <b>Effect of turbulent boundary layer induced coherence loss on beamforming measurements in industrial scale wind tunnel tests</b> J. Biesheuvel, University of Twente, Marknesse, The Netherlands; M. Tuinstra, National Aerospace Centre (NLR), Marknesse, The Netherlands; L. de Santana, K. Venner, University of Twente, Enschede, The Netherlands	1830 hrs AIAA-2019-2464 <b>Design of a Kevlar-Walled Test Section with Dynamic Turntable and Aeroacoustic Investigation of an Oscillating Airfoil</b> Y. Mayer, B. Zang, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom		

<b>Monday, 20 May 2019</b>				
<b>24-CAA-3</b>		<b>Computational Aeroacoustics III</b>		<b>Lecture Room B</b>
Chaired by: W. SCHROEDER, RWTH AACHEN UNIVERSITY, Institute of Aerodynamics and T. KUHN, IAG				
1800 hrs AIAA-2019-2465 <b>Zonal large eddy simulation of active open cavity noise using a high order discontinuous Galerkin method</b> T. Kuhn, University of Stuttgart, Stuttgart, Germany	1830 hrs AIAA-2019-2466 <b>Explicit Differential Filtering on Unstructured Grids for Large-Eddy Simulations in Aeroacoustics Using an Approximate Deconvolution Model</b> M. Najafiyazdi, L. Mongeau, S. Nadarajah, McGill University, Montréal, Canada			
<b>Monday, 20 May 2019</b>				
<b>25-DA-3</b>		<b>Duct Acoustics III</b>		<b>Lecture Room C</b>
Chaired by: S. RIENSTRA, Technische Universiteit Eindhoven and A. WILSON				
1800 hrs AIAA-2019-2467 <b>Recent Development in the Cremer Impedance: Experimental Analysis, Numerical Validation and Triple Roots</b> Z. Zhang, M. Åbom, H. Boden, Royal Institute of Technology (KTH), Stockholm, Sweden; X. Jing, L. Du, Beihang University, Beijing, China	1830 hrs AIAA-2019-2468 <b>Mode Merging Design Method for non-locally reacting liner with porous bulk materials</b> X. Qiu, L. Du, X. Jing, X. Sun, Beihang University, Beijing, China; M. Åbom, H. Boden, Royal Institute of Technology (KTH), Stockholm, Sweden	1900 hrs AIAA-2019-2469 <b>Influence of Source Propagation Direction and Shear Flow Profile in Impedance Eduction of Acoustic Liners</b> R. Roncen, E. Piot, F. Mery, F. Simon, ONERA, Toulouse, France; M. Jones, D. Nark, NASA Langley Research Center, Hampton, VA		
<b>Monday, 20 May 2019</b>				
<b>26-GA/LSF-3</b>		<b>General Acoustics &amp; Loads/Sonic Fatigue III</b>		<b>Blue Room</b>
Chaired by: I. CLARK, NASA Langley Research Center and G. YAKHINA				
1800 hrs AIAA-2019-2470 <b>The compact Green's function for multiple bodies</b> P. Boddoo, L. Ayton, University of Cambridge, Cambridge, United Kingdom	1830 hrs AIAA-2019-2471 <b>Optimal cavity shape design for absorbing acoustic liners using Helmholtz equation with visco-thermal losses</b> G. Tissot, G. Gabard, University of Le Mans, Le Mans, France	1900 hrs AIAA-2019-2472 <b>Experimental investigation of the noise control performance of leading edge serrations in a rectilinear cascade</b> L. Mazella, C. Paruchuri, G. Lacagnina, Y. Mao, P. Joseph, University of Southampton, Southampton, United Kingdom		
<b>Monday, 20 May 2019</b>				
<b>27-JA-3</b>		<b>Jet Aeroacoustics III</b>		<b>Senate Hall</b>
Chaired by: D. MCLAUGHLIN and E. PICKERING				
1800 hrs AIAA-2019-2473 <b>Modelling Noise Sources in Offset Two-Stream Jets Using Linear Stability Theory -- Further Developments</b> N. Singh, N. Sohoni, A. Sinha, Indian Institute of Technology Bombay, Mumbai, India	1830 hrs AIAA-2019-2474 <b>Space-time Description of the Density Near-field in a Non-uniformly Heated Jet.</b> K. Daniel, D. Mayo, K. Lowe, W. Ng, Virginia Polytechnic Institute and State University, Blacksburg, VA	1900 hrs AIAA-2019-2475 <b>Large-Eddy Simulation of Jet Surface Interaction Noise</b> G. Stich, J. Housman, J. Kocheeramoalayil, C. Kiris, NASA Ames Research Center, Moffett Field, CA; J. Bridges, NASA Glenn Research Center, Cleveland, OH		
<b>Monday, 20 May 2019</b>				
<b>28-SS/ANT-2</b>		<b>Special Session on NASA FDC Airframe Noise Flight Tests II</b>		<b>Lecture Room A</b>
Chaired by: J. DELFS, DLR - German Aerospace Center and M. KHORRAMI, NASA Langley Research Center				
1800 hrs AIAA-2019-2476 <b>Simulation-Based Assessment of a Full-Scale Installed Quiet Landing Gear</b> B. Duda, Exa GmbH, Munich, Germany; R. Ferris, Exa Corporation, Burlington, MA; M. Khorrami, NASA Langley Research Center, Hampton, VA	1830 hrs AIAA-2019-2477 <b>Measured and Simulated Acoustic Signature of a Full-Scale Aircraft with Airframe Noise Reduction Technology Installed</b> M. Khorrami, NASA Langley Research Center, Hampton, VA; P. Ravetta, AVEC, Inc., Blacksburg, VA; D. Lockard, NASA Langley Research Center, Hampton, VA; B. Duda, Exa GmbH, Munich, Germany; R. Ferris, Exa Corporation, Burlington, MA			

<b>Monday, 20 May 2019</b>		
<b>29-WS/HAWT-2</b> <b>1800 - 1930 hrs</b>	<b>Workshop/Hybrid Anechoic Wind Tunnel Technology II</b>	<b>Lecture Room D</b>

This workshop is dedicated to hybrid anechoic wind tunnels, which are wind tunnels that use tensioned fabric (often Kevlar) to contain the test flow and separate it from surrounding anechoic chambers. The goals of the workshop are to facilitate the exchange of technical information on the development and operation of current and planned facilities, to identify new opportunities and technologies of relevance, to discuss gaps in current understanding, and to build a consensus for best practices and standard test cases.

Session #2 includes an open discussion of: long-term themes for the workshop; collaboration on developing aeroacoustic data sets; common calibration procedures; and scaling issues and facility modelling with computational and analytical methods.

<b>Monday, 20 May 2019</b>		
<b>30-NW-1</b> <b>1930 - 2130 hrs</b>	<b>Welcome Reception</b>	<b>Museum Prinsenhof Delft</b>

Guides will take you on a 45-minute walking tour from the Aula Conference Center (departure at 19.30 hours) to the venue of the Welcome Reception in the Prinsenhof (Sint Agathaplein 1, 2611 HR Delft, prinsenhof-delft.nl). Museum Prinsenhof Delft was the scene of one of the most important events in Dutch history: the assassination of William of Orange. William of Orange moved into the Saint Agatha cloister in 1572, which was then renamed the Prinsenhof, and which eventually became the Museum Prinsenhof Delft. On 10 July 1584, he was gunned down by Balthasar Gerards as he climbed the stairs to his office. You can still see the bullet holes in the wall of the museum even today.

<b>Tuesday</b>
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<b>Tuesday, 21 May 2019</b>		
<b>31-A/FDI-4</b>	<b>Acoustic/Fluid Dynamics Interactions IV</b>	<b>Rhythm</b>

Chaired by: R. LEUNG and J. HERLAN

0830 hrs AIAA-2019-2478 <b>Numerical and analytical investigations of the effect of the streamwise disturbance on the airfoil-anisotropic turbulence interaction noise</b> S. Zhong, X. Zhang, Hong Kong University of Science and Technology, Hong Kong, Hong Kong	0900 hrs AIAA-2019-2479 <b>An analytical model for the prediction of airfoil cascade-turbulence interaction noise</b> S. Zhong, H. Jiang, W. Ying, X. Zhang, Hong Kong University of Science and Technology, Hong Kong, Hong Kong	0930 hrs AIAA-2019-2480 <b>Compressible turbulence porous-fluid coupling solver for noise reduction study of porous material coating</b> Z. Li, T. Tang, Y. Liu, E. Arcondoulis, Southern University of Science and Technology, Shenzhen, China		
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<b>Tuesday, 21 May 2019</b>		
<b>32-A/HLN-4</b>	<b>Airframe/High-Lift Noise IV</b>	<b>Committee Room 3</b>

Chaired by: M. KHORRAMI, NASA Langley Research Center and F. VUILLOT, ONERA

0830 hrs AIAA-2019-2481 <b>Noise Reduction of Regional Jet Two-Wheel Main Landing Gear</b> Y. Ito, Y. Yokokawa, T. Takaishi, K. Yamamoto, Japan Aerospace Exploration Agency (JAXA), Mitaka, Japan; T. Hirai, Ryoyu Systems Company, Ltd., Nagoya, Japan; Y. Ueno, Kawasaki Heavy Industries, Ltd., Kakamigahara, Japan; et al.	0900 hrs AIAA-2019-2482 <b>Wavelet-Based Separation Methods Assessment on the Near Pressure Field of a Landing Gear Subcomponent</b> A. Hajczak, L. Sanders, F. Vuillot, ONERA, Châtillon, France; P. Druault, Pierre and Marie Curie University, Paris, France	0930 hrs AIAA-2019-2483 <b>Intersected Octree Conformal Grid Strategies for Applications to Aeroacoustic Computations of the LAGOON, Landing Gear Model, Using the CEDRE Unstructured Flow Solver</b> F. Vuillot, S. Landier, T. Renaud, C. Benoît, L. Sanders, ONERA, Châtillon, France		
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<b>Tuesday, 21 May 2019</b>		
<b>33-CAA-4</b>	<b>Computational Aeroacoustics IV</b>	<b>Theater Hall</b>

Chaired by: V. GOLUBEV, Embry-Riddle Aeronautical University (ERAU) and Y. DU, Penn State University

0830 hrs AIAA-2019-2484 <b>Non-reflecting Boundary Conditions for Aeroacoustic Simulations</b> Y. Du, Northwestern Polytechnical University, Xi'an, China	0900 hrs AIAA-2019-2485 <b>Adjoint Broadband Optimization of a Bypass Liner with Spatially Varying Impedance</b> J. Abdel Hay, F. Thiele, N. Schönwald, CFD Software GmbH, Berlin, Germany; E. Özkaya, N. Gauger, Technical University of Kaiserslautern, Kaiserslautern, Germany; C. Richter, Rolls-Royce Group plc, Dahlewitz, Germany; et al.			
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Tuesday, 21 May 2019				
<b>34-DA-4</b>		<b>Duct Acoustics IV</b>		<b>Lecture Room C</b>
Chaired by: N. AGARWAL, The Boeing Company and B. HOWERTON, NASA Langley Research Center				
0830 hrs AIAA-2019-2486 <b>Evaluation of a Multizone Impedance Eduction Method</b> M. Jones, D. Nark, W. Watson, NASA Langley Research Center, Hampton, VA	0900 hrs AIAA-2019-2487 <b>Application of Swept Sine Excitation for Acoustic Impedance Eduction</b> B. Howerton, NASA Langley Research Center, Hampton, VA; H. Vold, Vold, LLC, Charleston, SC; M. Jones, NASA Langley Research Center, Hampton, VA	0930 hrs AIAA-2019-2488 <b>Testing Impedance Eduction Boundary Conditions with Four Wavenumbers per Frequency</b> A. Spillere, L. Bonomo, J. Cordioli, Federal University of Santa Catarina, Florianópolis, Brazil; E. Brambley, University of Warwick, Coventry, United Kingdom		
Tuesday, 21 May 2019				
<b>35-GA/LSF-4</b>		<b>General Acoustics &amp; Loads/Sonic Fatigue IV</b>		<b>Blue Room</b>
Chaired by: S. GRACE, Boston University and S. BECKER, University Erlangen				
0830 hrs AIAA-2019-2489 <b>Low-noise OGV design for broadband noise using bayesian optimisation</b> C. Paruchuri, P. Vellanki, A. Kalyan, J. Coupland, P. Joseph, University of Southampton, Southampton, United Kingdom	0900 hrs AIAA-2019-2490 <b>Aeroacoustic Prediction of Complex HVAC Systems</b> S. Becker, University of Erlangen-Nürnberg, Erlangen, Germany			
Tuesday, 21 May 2019				
<b>36-IEFA-2</b>		<b>Integration Effects and Flight Acoustics II</b>		<b>Dance Studio A</b>
Chaired by: J. JUNE, NASA Langley Research and L. REGO, TU Delft				
0830 hrs AIAA-2019-2491 <b>Free-Stream Effects on Jet-Installation Noise of a Dual-Stream Engine</b> L. Rego, F. Avallone, D. Ragni, D. Casalino, Delft University of Technology, Delft, The Netherlands; W. van der Velden, Exa GmbH, Stuttgart, Germany	0900 hrs AIAA-2019-2492 <b>The Modeling of Jet-Plate Interaction Noise in the Presence of Co-Flow</b> G. Faranosov, O. Bychkov, V. Kopiev, TsAGI, Moscow, Russia; L. Soares, A. Cavalieri, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil	0930 hrs AIAA-2019-2493 <b>Supersonic Engine Inlet Tone Noise Radiation</b> D. Stephens, C. Miller, NASA Glenn Research Center, Cleveland, OH; P. Slaboch, J. Brown, University of Hartford, West Hartford, CT; J. Celestina, University of Detroit Mercy, Detroit, MI		
Tuesday, 21 May 2019				
<b>37-JA-4</b>		<b>Jet Aeroacoustics IV</b>		<b>Senate Hall</b>
Chaired by: P. MORRIS, Pennsylvania State University and M. MANCINELLI, Institut Pprime				
0830 hrs AIAA-2019-2494 <b>An investigation of a mixer-ejector nozzle for jet noise reduction</b> K. Zaman, J. Bridges, R. Castner, A. Fagan, NASA Glenn Research Center, Cleveland, OH	0900 hrs AIAA-2019-2495 <b>Effect of Nozzle Inflow Conditions on Shock-Cell Structure and Noise in Overexpanded Jets</b> J. Liu, A. Corrigan, R. Johnson, R. Ramamurti, Naval Research Laboratory, Washington, D.C.	0930 hrs AIAA-2019-2496 <b>Velocity Scaling of Shear Layer Noise induced by cold Jet flow with co-flowing Flight stream</b> C. Jente, J. Delfs, German Aerospace Center (DLR), Braunschweig, Germany		
Tuesday, 21 May 2019				
<b>38-PRVSN-1</b>		<b>Propeller, Rotorcraft and V/STOL Noise I</b>		<b>Frans van Hasselt Room</b>
Chaired by: S. LEE, University of California, Davis and C. NARDARI				
0830 hrs AIAA-2019-2497 <b>Numerical and Experimental Investigation of Flow Confinement Effects on UAV Rotor Noise</b> C. Nardari, Dassault Group, Waltham, MA; D. Casalino, Dassault Group, Stuttgart, Germany; F. Polidoro, Dassault Group, Waltham, MA; V. Coralic, P. Lew, J. Brodie, Amazon.com, Inc., Seattle, WA	0900 hrs AIAA-2019-2498 <b>Noise measurements of generic small-scale propellers</b> R. Fattah, W. Chen, H. Wu, Y. Wu, X. Zhang, Hong Kong University of Science and Technology, Hong Kong, Hong Kong	0930 hrs AIAA-2019-2499 <b>Multicopter Unmanned Aerial System Propeller Noise Caused by Unsteady Blade Motion</b> R. McKay, M. Kingan, University of Auckland, Auckland, New Zealand		



<b>Tuesday, 21 May 2019</b>			
<b>39-TCN-1</b>	<b>Turbomachinery and Core Noise I</b>		<b>Orange Room</b>
Chaired by: D. SUTLIFF, NASA Glenn Research Center and S. GUERIN, DLR - German Aerospace Center			
0830 hrs AIAA-2019-2500 <b>Noise prediction of the ACAT1 fan with a RANS-informed analytical method: success and challenge</b> S. Guerin, C. Kissner, B. Kajasa, R. Jaron, M. Behn, B. Pardowitz, German Aerospace Center (DLR), Berlin, Germany; et al.	0900 hrs AIAA-2019-2501 <b>Assessment of a 2D Synthetic Turbulence Method for Predicting the ACAT1 Fan's Broadband Noise</b> C. Kissner, S. Guerin, M. Behn, German Aerospace Center (DLR), Berlin, Germany	0930 hrs AIAA-2019-2502 <b>Investigation of Sound Generation and Transmission Effects Through the ACAT1 Fan Stage using Compressed Sensing-based Mode Analysis</b> M. Behn, U. Tapken, German Aerospace Center (DLR), Berlin, Germany	
<b>Tuesday, 21 May 2019</b>			
<b>40-A/FDI-5</b>	<b>Acoustic/Fluid Dynamics Interactions V</b>		<b>Rhythm</b>
Chaired by: R. LEUNG and J. HERLAN			
1030 hrs AIAA-2019-2503 <b>Turbulent flow interaction with a circular cylinder</b> R. Maryami, University of Yazd, Yazd, Iran; S. Showkat Ali, University of Malaysia, Perlis, Malaysia; M. Azarpeyvand, University of Bristol, Bristol, United Kingdom; A. Dehghan, A. Afshari, University of Yazd, Yazd, Iran	1100 hrs AIAA-2019-2504 <b>Assymmetric Improvement by a Shear Flow of the Absorption of an Acoustic Wall</b> C. Saverina, Y. Auegan, V. Pagneux, University of Le Mans, Le Mans, France	1130 hrs AIAA-2019-2505 <b>On the Strouhal Number Dependence of Turbulence Convection in a Wake-Airfoil Interaction</b> J. Herlan, N. Murray, University of Mississippi, University, MS	
<b>Tuesday, 21 May 2019</b>			
<b>41-A/HLN-5</b>	<b>Airframe/High-Lift Noise V</b>		<b>Committee Room 3</b>
Chaired by: M. KHORRAMI, NASA Langley Research Center and F. VUILLOT, ONERA			
1030 hrs AIAA-2019-2506 <b>Validation of Noise Reduction Design for Landing Gear in the FQUROH Flight Demonstration Project</b> Y. Ueno, K. Isotani, K. Hayama, Kawasaki Heavy Industries, Ltd., Kakamigahara, Japan; T. Takaishi, Y. Ito, Y. Yokokawa, Japan Aerospace Exploration Agency (JAXA), Chofu, Japan; et al.	1100 hrs AIAA-2019-2507 <b>Numerical study on coupling effect of landing gear and cavity noise</b> Z. Guo, P. Liu, H. Guo, Beihang University, Beijing, China	1130 hrs AIAA-2019-2508 <b>Experimental Investigation of Acoustical Coupling Effects between Cavity Flow and Cross Cylinder Wake</b> H. Guo, X. Liang, T. Hu, P. Liu, Beihang University, Beijing, China	
<b>Tuesday, 21 May 2019</b>			
<b>42-CAA-5</b>	<b>Computational Aeroacoustics V</b>		<b>Theater Hall</b>
Chaired by: V. GOLUBEV, Embry-Riddle Aeronautical University (ERAU) and Y. DU, Penn State University			
1030 hrs AIAA-2019-2509 <b>Investigation of high-order cell-centered finite difference method for aeroacoustics</b> Y. Jin, Northwestern Polytechnical University, Xi'an, China; F. Liao, Chinese Academy of Science, Beijing, China; J. Cai, Northwestern Polytechnical University, Xi'an, China; P. Morris, Pennsylvania State University, State College, PA	1100 hrs AIAA-2019-2510 <b>Computation of Flow-induced Sound from Gust Interacting with a Vibrating Cascade Using Body Force Model</b> L. Cheng, L. Du, X. Sun, Beihang University, Beijing, China	1130 hrs AIAA-2019-2511 <b>Slitted leading-edge profiles for the reduction of broadband interaction noise; physical mechanisms and performance</b> M. Cannard, P. Joseph, J. Kim, C. Paruchuri, University of Southampton, Southampton, United Kingdom	
<b>Tuesday, 21 May 2019</b>			
<b>43-CNM/SB-1</b>	<b>Community Noise and Metrics &amp; Sonic Boom I</b>		<b>Blue Room</b>
Chaired by: J. WONG and F. GROSVELD, Northrop Grumman Advanced Defense Services ret.			
1030 hrs AIAA-2019-2512 <b>Variability of Sound Quality Metrics for Different Aircraft Types During Landing and Take-Off</b> A. Vieira, U. Mehmood, R. Merino-Martinez, M. Snellen, D. G. Simons, Delft University of Technology, Delft, The Netherlands	1100 hrs AIAA-2019-2513 <b>Sound quality metrics applied to aircraft components under operational conditions using a microphone array</b> R. Merino-Martinez, A. Vieira, M. Snellen, D. G. Simons, Delft University of Technology, Delft, The Netherlands	1130 hrs AIAA-2019-2514 <b>Study of Ptero-GO UAV Noise with Level Flight Conditions</b> P. Moshkov, Joint-Stock Company Sukhoi Civil Aircraft, Moscow, Russia; N. Ostrikov, V. Samokhin, TsAGI, Moscow, Russia; A. Valiev, "AFM-SERVERS", LLC, Moscow, Russia	

<b>Tuesday, 21 May 2019</b>			
<b>44-DA-5</b>	<b>Duct Acoustics V</b>		<b>Lecture Room C</b>
Chaired by: N. AGARWAL, The Boeing Company and B. HOWERTON, NASA Langley Research Center			
1030 hrs AIAA-2019-2515 <b>Experimental Validation of the Two-port Impedance Education Method</b> H. Denayer, W. De Roeck, W. Desmet, Catholic University of Leuven, Leuven, Belgium	1100 hrs AIAA-2019-2516 <b>Direct impedance education of liners from Laser Doppler Velocimetry measurements</b> M. D'Elia, T. Humbert, Y. Auregan, University of Le Mans, Le Mans, France	1130 hrs AIAA-2019-2517 <b>Experimental impedance assessment of innovative liner under shear grazing flow</b> F. Mery, D. Sebbane, R. Roncen, E. Piot, F. Simon, ONERA, Toulouse, France	
<b>Tuesday, 21 May 2019</b>			
<b>45-IEFA-3</b>	<b>Integration Effects and Flight Acoustics III</b>		<b>Dance Studio A</b>
Chaired by: J. JUNE, NASA Langley Research and L. REGO, TU Delft			
1030 hrs AIAA-2019-2518 <b>Acoustic Radiation of Supersonic Inlet with Auxiliary Door and Mean Flow</b> J. Brown, P. Slaboch, University of Hartford, West Hartford, CT	1100 hrs AIAA-2019-2519 <b>Numerical study, with experimental validation, of fan noise installation effects in Over-Wing Nacelle configuration using the Immersed Boundary Method</b> M. Lorteau, ONERA, Châtillon, France; L. Wiat, ONERA, Meudon, France; V. Kopiev, S. Denisov, TsAGI, Zhukovsky, Russia		
<b>Tuesday, 21 May 2019</b>			
<b>46-JA-5</b>	<b>Jet Aeroacoustics V</b>		<b>Senate Hall</b>
Chaired by: P. MORRIS, Pennsylvania State University and M. MANCINELLI, Institut Pprime			
1030 hrs AIAA-2019-2520 <b>Towards Large Eddy Simulations of Supersonic Rectangular Jets including Screech</b> G. Wu, S. Lele, J. Jeun, Stanford University, Stanford, CA	1100 hrs AIAA-2019-2521 <b>Skewness as means for separating crackle from screech</b> J. Puneekar, E. Avital, Queen Mary University of London, London, United Kingdom; A. Rona, University of Leicester, Leicester, United Kingdom	1130 hrs AIAA-2019-2522 <b>Reflection coefficients and screech-tone prediction in supersonic jets</b> M. Mancinelli, V. Jaunet, P. Jordan, National Center for Scientific Research (CNRS), Poitiers, France; A. Towne, University of Michigan, Ann Arbor, MI; S. Girard, National Center for Scientific Research (CNRS), Poitiers, France	
<b>Tuesday, 21 May 2019</b>			
<b>47-PRVSN-2</b>	<b>Propeller, Rotorcraft and V/STOL Noise II</b>		<b>Frans van Hasselt Room</b>
Chaired by: S. LEE, University of California, Davis and C. NARDARI			
1030 hrs AIAA-2019-2523 <b>Aeroacoustic and aerodynamic investigation of multicopter rotors with serrated trailing edges</b> Y. Yang, Y. Li, Y. Liu, E. Arcondoulis, Southern University of Science and Technology, Shenzhen, China; Y. Wang, B. Huang, China Aerodynamics Research and Development Center (CARDIC), Mianyang, China; et al.	1100 hrs AIAA-2019-2524 <b>Analytical Investigation of Turbulence Interaction Noise of Mini-RPA Serrated Blades</b> H. Akila, National Polytechnic School, Algiers, Algeria; B. Marinus, Royal Military Academy, Brussels, Belgium; S. Larbi, National Polytechnic School, Algiers, Algeria		

<b>Tuesday, 21 May 2019</b>				
<b>48-TCN-2</b>		<b>Turbomachinery and Core Noise II</b>		<b>Orange Room</b>
Chaired by: D. SUTLIFF, NASA Glenn Research Center and S. GUERIN, DLR - German Aerospace Center				
1030 hrs AIAA-2019-2525 <b>Radial mode breakdown of the ACAT1 fan broadband noise generation in the bypass duct using a sparse sensor array</b> U. Tapken, M. Behn, M. Spitalny, B. Pardowitz, German Aerospace Center (DLR), Berlin, Germany	1100 hrs AIAA-2019-2526 <b>Noise generated by entropic and compositional inhomogeneities interacting with a cascade of airfoils</b> P. Baddoo, University of Cambridge, Cambridge, United Kingdom; J. Guzman Inigo, Imperial College London, London, United Kingdom; L. Ayton, University of Cambridge, Cambridge, United Kingdom; A. Morgans, Imperial College London, London, United Kingdom			
<b>Tuesday, 21 May 2019</b>				
<b>49-WS/COM-1</b>		<b>Workshop/COMSOL</b>		<b>Committee Room 2</b>
1030 - 1200 hrs				
COMSOL Multiphysics® is a general-purpose simulation software for modelling designs, devices, and processes in all fields of engineering, manufacturing, and scientific research. In addition to using multiphysics modelling for your own projects, you can also turn your models into simulation applications and digital twins for use by others. During the workshop the basics of acoustics modelling and analysis in the COMSOL Multiphysics® software explained, including setting up boundary conditions and calculation of near and far field noise propagation features.				
<b>Tuesday, 21 May 2019</b>				
<b>50-LUNCH-2</b>		<b>Tuesday Lunch</b>		<b>Foyer - Aula Conference Centre</b>
1200 - 1300 hrs				
<b>Tuesday, 21 May 2019</b>				
<b>51-PLNRY-2</b>		<b>Tuesday Afternoon Plenary - CEAS Aeroacoustics Award 2019 Lecture and Ceremony</b>		<b>Auditorium</b>
1300 - 1400 hrs				
Keynote Speaker and Award Recipient <b>Roland Ewert, DLR</b>				
<b>Tuesday, 21 May 2019</b>				
<b>52-A/FDI-6</b>		<b>Acoustic/Fluid Dynamics Interactions VI</b>		<b>Rhythm</b>
Chaired by: V. GOLUBEV, Embry-Riddle Aeronautical University (ERAU) and L. AYTON, University of Cambridge				
1400 hrs AIAA-2019-2527 <b>Determining Unsteady Aerodynamic Lift due to Turbulent Flow about Elastic Airfoils with Thick, Wavy Leading Edges</b> J. Anderson, M. Catlett, J. Forest, J. Joiner, Z. Kaler, F. Manar, Naval Surface Warfare Center, West Bethesda, MD	1430 hrs AIAA-2019-2528 <b>The Unified Transform: A Spectral Collocation Method for Acoustic Scattering</b> L. Ayton, M. Colbrook, A. Fokas, University of Cambridge, Cambridge, United Kingdom	1500 hrs AIAA-2019-2529 <b>Acoustic scattering by laminated plates with viscoelastic layers</b> M. Nilton, A. Cavaliere, M. Donadon, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil; W. Wolf, University of Campinas, Campinas, Brazil		
<b>Tuesday, 21 May 2019</b>				
<b>53-A/HLN-6</b>		<b>Airframe/High-Lift Noise VI</b>		<b>Committee Room 3</b>
Chaired by: U. MICHEL and Y. MAYER				
1400 hrs AIAA-2019-2530 <b>Aeroacoustic Characteristics of a NACA 0012 Airfoil for Attached and Stalled Flow Conditions</b> Y. Mayer, B. Zang, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom	1430 hrs AIAA-2019-2531 <b>Effect of cross-section on flow three-dimensionality for prismatic bodies and the associated noise emission</b> W. Pinto, F. Margnat, Y. Gervais, Institut Pprime, Poitiers, France	1500 hrs AIAA-2019-2532 <b>Influence of cross-section on the aeolian tone: a numerical study in the laminar regime</b> W. Pinto, F. Margnat, Y. Gervais, Institut Pprime, Poitiers, France		

<b>Tuesday, 21 May 2019</b>			
<b>54-ACNVF-1</b>	<b>Active Control of Noise, Vibration and Flows I</b>		<b>Committee Room 2</b>
Chaired by: N. SCHILLER, NASA Langley Research Center and F. ALVI, Florida State University			
1400 hrs AIAA-2019-2533 <b>Passive and active methods to control the aeroacoustic noise generated by elliptical cylinders for automotive applications</b> M. Massarotti, W. Wolf, University of Campinas, Campinas, Brazil	1430 hrs AIAA-2019-2534 <b>Sinusoidal Approximation Active Control for Combustion Oscillation</b> Y. Liu, Y. Yan, J. Li, Nanjing University of Aeronautics and Astronautics, Nanjing, China	1500 hrs AIAA-2019-2535 <b>Real-Time Estimation in a Turbulent Jet Using Multiple-Input-Multiple-Output Transfer Functions</b> I. Maia, P. Jordan, National Center for Scientific Research (CNRS), Poitiers, France; E. Martini, A. Cavalleri, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil; A. Towne, University of Michigan, Ann Arbor, Ann Arbor, MI; L. Lesshafft, École Polytechnique, Palaiseau, France; et al.	
<b>Tuesday, 21 May 2019</b>			
<b>55-CAA-6</b>	<b>Computational Aeroacoustics VI</b>		<b>Theater Hall</b>
Chaired by: G. GABARD, LAUM, Université du Maine and U. IEMMA, University of Rome III			
1400 hrs AIAA-2019-2536 <b>An LES Study of Core Temperature, Velocity, and Mach Number Effect on the Far-Field Noise of Co-Axial Jets</b> A. Markesteijn, GPU-prime, Ltd., Cambridge, United Kingdom; S. Karabasov, Queen Mary University of London, London, United Kingdom	1430 hrs AIAA-2019-2537 <b>LES and FW-H Prediction of Aeroacoustic Noise for a SD 7037 Airfoil for Wind Turbine Applications</b> A. Zilstra, D. Johnson, University of Waterloo, Waterloo, Canada	1500 hrs AIAA-2019-2538 <b>Conservative source term interpolation for hybrid aeroacoustic computations</b> S. Schoder, C. Junger, M. Weitz, M. Kaltenbacher, Technical University of Vienna, Vienna, Austria	
<b>Tuesday, 21 May 2019</b>			
<b>56-CNM/SB-2</b>	<b>Community Noise and Metrics &amp; Sonic Boom II</b>		<b>Blue Room</b>
Chaired by: J. WONG and F. GROSVELD, Northrop Grumman Advanced Defense Services ret.			
1400 hrs AIAA-2019-2539 <b>The Aircraft Noise Simulation Working Group (ANSWr) - Tool Benchmark and Reference Aircraft Results</b> L. Bertsch, German Aerospace Center (DLR), Göttingen, Germany; R. Thomas, NASA Langley Research Center, Hampton, VA; L. Sanders, I. LeGriffon, ONERA, Châtillon, France	1430 hrs AIAA-2019-2540 <b>The Aircraft Noise Simulation Working Group (ANSWr) – V2 Aircraft Results</b> L. Sanders, ONERA, Châtillon, France; R. Thomas, NASA Langley Research Center, Hampton, VA; L. Bertsch, German Aerospace Center (DLR), Göttingen, Germany; I. LeGriffon, ONERA, Châtillon, France; I. Clark, J. June, NASA Langley Research Center, Hampton, VA; et al.		
<b>Tuesday, 21 May 2019</b>			
<b>57-DA-6</b>	<b>Duct Acoustics VI</b>		<b>Lecture Room C</b>
Chaired by: D. SUTLIFF, NASA Glenn Research Center and W. EVERSMAN, Missouri University of Science and Technology			
1400 hrs AIAA-2019-2541 <b>A parametric uncertainty analysis for impedance reduction based on Prony's method</b> L. Bonomo, A. Spillere, J. Cordioli, Federal University of Santa Catarina, Florianópolis, Brazil	1430 hrs AIAA-2019-2542 <b>Lattice-Boltzmann Very Large Eddy Simulation of a Multi-Orifice Acoustic Liner with Turbulent Grazing Flow</b> F. Avallone, P. Manjunath, D. Ragni, D. Casalino, Delft University of Technology, Delft, The Netherlands	1500 hrs AIAA-2019-2543 <b>Spatial Numerical Simulation of a Turbulent Plane Channel Flow with an Impedance Wall</b> D. Marx, R. Sebastian, V. Fortune, National Center for Scientific Research (CNRS), Poitiers, France	

<b>Tuesday, 21 May 2019</b>				
<b>58-JA-6</b>		<b>Jet Aeroacoustics VI</b>		<b>Senate Hall</b>
Chaired by: G. STICH and A. TOWNE, University of Michigan, Ann Arbor				
1400 hrs AIAA-2019-2544 <b>Sources of Sound and their Radiation in Twin Turbulent Jets</b> N. Muthichur, S. Hemchandra, H. Tummalapalli, A. Samanta, Indian Institute of Science, Bengaluru, India	1430 hrs AIAA-2019-2545 <b>Experimental Investigation into the Turbulence Flow Field of In-Flight Jets</b> A. Proenca, J. Lawrence, R. Self, University of Southampton, Southampton, United Kingdom	1500 hrs AIAA-2019-2546 <b>An investigation of the Mach number dependence of trapped acoustic waves in turbulent jets</b> A. Towne, University of Michigan, Ann Arbor, Ann Arbor, MI; O. Schmidt, University of California, San Diego, San Diego, CA; G. Brès, Cascade Technologies, Inc., Palo Alto, CA		
<b>Tuesday, 21 May 2019</b>				
<b>59-PRVSN-3</b>		<b>Propeller, Rotorcraft and V/STOL Noise III</b>		<b>Frans van Hasselt Room</b>
Chaired by: H. BROUWER and W. ANEMAAT, DARcorporation				
1400 hrs AIAA-2019-2547 <b>UAV Rotor Acoustic Analysis and Optimization</b> M. Yang, D. van Dommelen, W. Liu, J. Eppler, D. Darrah, W. Anemaat, Design, Analysis and Research Corporation, Lawrence, KS	1430 hrs AIAA-2019-2548 <b>Towards counter-rotating open rotor noise reduction via radiation efficiency considerations</b> C. Horváth, B. Fenyvesi, B. Kocsis, Budapest University of Technology and Economics, Budapest, Hungary; M. Quaglia, S. Moreau, University of Sherbrooke, Sherbrooke, Canada; J. Kennedy, Trinity College Dublin, Dublin, Ireland; et al.			
<b>Tuesday, 21 May 2019</b>				
<b>60-TCN-3</b>		<b>Turbomachinery and Core Noise III</b>		<b>Orange Room</b>
Chaired by: J. WINKLER, United Technologies Research Center and L. ENGHARDT, DLR - German Aerospace Center				
1400 hrs AIAA-2019-2549 <b>Advanced analysis of tonal noise from asynchronous counter-rotating fans by means of a low sensor count</b> L. Enghardt, German Aerospace Center (DLR), Berlin, Germany; V. Bahrs, Technical University of Berlin, Berlin, Germany; U. Tapken, German Aerospace Center (DLR), Berlin, Germany	1430 hrs AIAA-2019-2550 <b>Two-dimensional sound transmission in realistic turbomachinery cascade</b> S. Moreau, University of Sherbrooke, Sherbrooke, Canada; P. Baddoo, University of Cambridge, Cambridge, United Kingdom; H. Bériot, Siemens, Leuven, Belgium; M. Roger, École Centrale de Lyon, Ecully, France			
<b>Tuesday, 21 May 2019</b>				
<b>61-WS/RNG-1</b> <b>1400 - 1530 hrs</b>		<b>Workshop/RINGO I (Invitation Only)</b>		<b>Committee Room 1</b>
The Flightpath 2050 (FP2050) strategy document has provided Europe with a vision for aviation and air transportation, identifying goals for the research community and policymakers alike. In order to achieve these challenging long-term goals, it is imperative to ensure that the required infrastructure for research activities addressing these challenges is available both to the necessary extent and in the required timeframe. RINGO ("Research Infrastructures - Needs, Gaps and Overlaps") is a Coordination and Support Action funded by the European Commission under H2020 aimed at delivering a cohesive and coordinated approach for the identification and assessment of the needs, gaps and overlaps for strategic aviation research infrastructures in Europe. To specifically access needs and gaps in aeroacoustics, a dedicated workshop will be organized by RINGO for invited specialists.				
<b>Tuesday, 21 May 2019</b>				
<b>62-A/FDI-7</b>		<b>Acoustic/Fluid Dynamics Interactions VII</b>		<b>Lecture Room D</b>
Chaired by: V. GOLUBEV, Embry-Riddle Aeronautical University (ERAU) and L. AYTON, University of Cambridge				
1600 hrs AIAA-2019-2551 <b>Effect of Surface Roughness on Boundary Layer Transition and Far Field Noise</b> Q. Ye, F. Avallone, D. Ragni, Delft University of Technology, Delft, The Netherlands; M. Choudhari, NASA Langley Research Center, Hampton, VA; D. Casalino, Delft University of Technology, Delft, The Netherlands	1630 hrs AIAA-2019-2552 <b>A Semi-analytic and Experimental Study of Porous Leading Edges</b> M. Priddin, University of Cambridge, Cambridge, United Kingdom; C. Paruchuri, P. Joseph, University of Southampton, Southampton, United Kingdom; L. Ayton, University of Cambridge, Cambridge, United Kingdom			

<b>Tuesday, 21 May 2019</b>			
<b>63-A/HLN-7</b>	<b>Airframe/High-Lift Noise VII</b>		<b>Committee Room 3</b>
Chaired by: U. MICHEL and D. BAKER			
1600 hrs AIAA-2019-2553 <b>Airframe Noise Prediction Using Navier-Stokes Code with Cartesian and Boundary-fitted Layer Meshes</b> Y. Ueno, A. Ochi, Kawasaki Heavy Industries, Ltd., Kakamigahara, Japan	1630 hrs AIAA-2019-2554 <b>High Frequency Scattering in Rotational Flow</b> D. Baker, N. Peake, University of Cambridge, Cambridge, United Kingdom	1700 hrs AIAA-2019-2555 <b>Lattice-Boltzmann and Navier-Stokes Simulations of the Partially Dressed, Cavity-Closed Nose Landing Gear Benchmark Case</b> Y. Hou, D. Angland, University of Southampton, Southampton, United Kingdom; A. Sengissen, A. Scotto, Airbus, Toulouse, France	
<b>Tuesday, 21 May 2019</b>			
<b>64-ACNVF-2</b>	<b>Active Control of Noise, Vibration and Flows II</b>		<b>Committee Room 2</b>
Chaired by: N. SCHILLER, NASA Langley Research Center and F. ALVI, Florida State University			
1600 hrs AIAA-2019-2556 <b>Leading-edge Serrations for Noise Control from Tandem Airfoil Configuration</b> S. Vemuri, X. Liu, B. Zang, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom	1630 hrs AIAA-2019-2557 <b>Plasma-based active closed-loop control of instability waves in unexcited turbulent jet. Part 1. Free jet.</b> G. Faranosov, O. Bychkov, V. Kopiev, TsAGI, Moscow, Russia; I. Moralev, P. Kazansky, Russian Academy of Sciences, Moscow, Russia	1700 hrs AIAA-2019-2558 <b>Plasma-based active closed-loop control of instability waves in unexcited turbulent jet. Part 2. Installed jet.</b> V. Kopiev, G. Faranosov, V. Kopiev, O. Bychkov, TsAGI, Moscow, Russia; I. Moralev, P. Kazansky, Russian Academy of Sciences, Moscow, Russia	
<b>Tuesday, 21 May 2019</b>			
<b>65-CAA-7</b>	<b>Computational Aeroacoustics VII</b>		<b>Theater Hall</b>
Chaired by: G. GABARD, LAUM, Universite du Maine and U. IEMMA, University of Rome III			
1600 hrs AIAA-2019-2559 <b>Steering of Acoustic Reflection from Metasurfaces through Numerical Optimization</b> G. Palma, I. Cioffi, F. Centracchio, L. Burghignoli, U. Iemma, Roma Tre University, Rome, Italy	1630 hrs AIAA-2019-2560 <b>A Domain Decomposition Method with High-Order Finite Elements for Flow Acoustics</b> A. Lieu, University of Southampton, Southampton, United Kingdom; G. Gabard, University of Le Mans, Le Mans, France; H. Bériot, Siemens, Leuven, Belgium	1700 hrs AIAA-2019-2561 <b>Helmholtz's Decomposition applied to Aeroacoustics</b> S. Schoder, M. Kaltenbacher, K. Roppert, Technical University of Vienna, Vienna, Austria	
<b>Tuesday, 21 May 2019</b>			
<b>66-CNM/SB-3</b>	<b>Community Noise and Metrics &amp; Sonic Boom III</b>		<b>Blue Room</b>
Chaired by: J. WONG and F. GROSVELD, Northrop Grumman Advanced Defense Services ret.			
1600 hrs AIAA-2019-2562 <b>Three-dimensional Simulation of Shaped Sonic Boom Signature Loudness Variations Due to Atmospheric Turbulence</b> T. Stout, V. Sparrow, Pennsylvania State University, State College, PA	1630 hrs AIAA-2019-2563 <b>Simulation of N-wave propagation in a realistic turbulent atmosphere using two-dimensional nonlinear parabolic equation</b> P. Yuldashev, M. Karzova, Moscow State University, Lyon, Russia; S. Ollivier, University of Lyon, Lyon, France; V. Khokhlova, Moscow State University, Lyon, Russia; P. Blanc-Benon, University of Lyon, Lyon, France		

<b>Tuesday, 21 May 2019</b>			
<b>67-DA-7</b>	<b>Duct Acoustics VII</b>		<b>Lecture Room C</b>
Chaired by: D. SUTLIFF, NASA Glenn Research Center and W. EVERSMAN, Missouri University of Science and Technology			
1600 hrs AIAA-2019-2564 <b>Effect of Grazing Flow on Grooved Over-the-Rotor Acoustic Casing Treatments</b> R. Bozak, NASA Glenn Research Center, Cleveland, OH; M. Jones, B. Howerton, M. Brown, NASA Langley Research Center, Hampton, VA	1630 hrs AIAA-2019-2565 <b>Investigation of Flexible Walls for Acoustic Liners</b> K. Knobloch, L. Enghardt, F. Bake, German Aerospace Center (DLR), Berlin, Germany	1700 hrs AIAA-2019-2566 <b>Investigation of Liner Axial Displacement in a Complex Acoustic Environment</b> M. Brown, M. Jones, NASA Langley Research Center, Hampton, VA	
<b>Tuesday, 21 May 2019</b>			
<b>68-JA-7</b>	<b>Jet Aeroacoustics VII</b>		<b>Senate Hall</b>
Chaired by: G. STICH and A. TOWNE, University of Michigan, Ann Arbor			
1600 hrs AIAA-2019-2567 <b>Dynamics of turbulent boundary layers exciting wavepackets in subsonic jets</b> O. Kaplan, P. Jordan, Institut Pprime, CNRS-Université de Poitiers-ENSMA, Poitiers, France; A. Cavalieri, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil; G. Brès, Cascade Technologies, Inc., Palo Alto, CA	1630 hrs AIAA-2019-2568 <b>Low-frequency correlation theory of noise sources in subsonic turbulent jet</b> V. Kopiev, S. Chernyshev, TsAGI, Moscow, Russia	1700 hrs AIAA-2019-2569 <b>Resolvent-based analysis of streaks in turbulent jets</b> P. Nogueira, A. Cavalieri, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil; O. Schmidt, University of California, San Diego, San Diego, CA; P. Jordan, V. Jaunet, National Center for Scientific Research (CNRS), Poitiers, France; E. Pickering, California Institute of Technology, Pasadena, CA; et al.	
<b>Tuesday, 21 May 2019</b>			
<b>69-PRVSN-4</b>	<b>Propeller, Rotorcraft and V/STOL Noise IV</b>		<b>Frans van Hasselt Room</b>
Chaired by: H. BROUWER and W. ANEMAAT, DARcorporation			
1600 hrs AIAA-2019-2570 <b>A Parametric Study of Counter Rotating Open Rotor Noise</b> D. Smith, A. Filippone, N. Bojdo, University of Manchester, Manchester, United Kingdom	1630 hrs AIAA-2019-2571 <b>Turbulence Ingestion into a Rotor at the Rear of an Axisymmetric Body</b> C. Hickling, N. Balantrapu, W. Alexander, A. Millican, W. Devenport, Virginia Polytechnic Institute and State University, Blacksburg, VA; S. Glegg, Florida Atlantic University, Boca Raton, FL	1700 hrs AIAA-2019-2572 <b>Extracting the broadband noise sources of counter-rotating open rotors</b> K. Tokaji, B. Soós, C. Horváth, Budapest University of Technology and Economics, Budapest, Hungary	
<b>Tuesday, 21 May 2019</b>			
<b>70-TCN-4</b>	<b>Turbomachinery and Core Noise IV</b>		<b>Orange Room</b>
Chaired by: J. WINKLER, United Technologies Research Center and L. ENGHARDT, DLR - German Aerospace Center			
1600 hrs AIAA-2019-2573 <b>Direct Noise Computation of the Rotor-Rotor Interaction Modes in Counter-Rotating Cascades</b> R. Bobenieth Misserda, F. Reckziegel, L. Balduino, University of Brasilia, Brasilia, Brazil	1630 hrs AIAA-2019-2574 <b>A new MEMS microphone array for the wavenumber analysis of wall-pressure fluctuations: application to the modal investigation of a ducted low-Mach number stage</b> E. Salze, E. Jondeau, A. Pereira, S. Prigent, C. Bailly, École Centrale de Lyon, Ecully, France		
<b>Tuesday, 21 May 2019</b>			
<b>71-WS/RNG-2</b> 1600 - 1730 hrs	<b>Workshop/RINGO II (Invitation Only)</b>		<b>Committee Room 1</b>
The Flightpath 2050 (FP2050) strategy document has provided Europe with a vision for aviation and air transportation, identifying goals for the research community and policymakers alike. In order to achieve these challenging long-term goals, it is imperative to ensure that the required infrastructure for research activities addressing these challenges is available both to the necessary extent and in the required timeframe. RINGO ("Research Infrastructures - Needs, Gaps and Overlaps") is a Coordination and Support Action funded by the European Commission under H2020 aimed at delivering a cohesive and coordinated approach for the identification and assessment of the needs, gaps and overlaps for strategic aviation research infrastructures in Europe. To specifically access needs and gaps in aeroacoustics, a dedicated workshop will be organized by RINGO for invited specialists.			

<b>Tuesday, 21 May 2019</b>			
<b>72-A/HLN-8</b>	<b>Airframe/High-Lift Noise VIII</b>		<b>Committee Room 3</b>
Chaired by: U. MICHEL and D. BAKER			
1800 hrs AIAA-2019-2575 <b>Component-based model for Flap Noise Prediction</b> Y. Jiang, China Aerodynamics Research and Development Center (CARDC), Mianyang, China; A. Filippone, University of Manchester, Manchester, United Kingdom	1830 hrs AIAA-2019-2576 <b>Airframe Noise Reduction for a Wing-flap Configuration Using DBD Plasma Actuators</b> S. Wasala, Chalmers University of Technology, Göteborg, Sweden; S. Peng, Swedish Defense Research Agency (FOI), Stockholm, Sweden; H. Yao, L. Davidson, Chalmers University of Technology, Göteborg, Sweden	1900 hrs AIAA-2019-2577 <b>Computational Analysis of Noise Reduction Results for Flap Side-edges in the FQUROH Flight Demonstration Project</b> M. Murayama, Y. Yokokawa, Y. Ito, T. Takaishi, K. Yamamoto, R. Sakai, Japan Aerospace Exploration Agency (JAXA), Mitaka, Japan; et al.	
<b>Tuesday, 21 May 2019</b>			
<b>73-CAA-8</b>	<b>Computational Aeroacoustics VIII</b>		<b>Lecture Room B</b>
Chaired by: G. GABARD, LAUM, Université du Maine and U. IEMMA, University of Rome III			
1800 hrs AIAA-2019-2578 <b>A Comparison of Boundary Integral Formulations for Sound Scattered by Moving Bodies</b> G. Bernardini, C. Paggi, M. Gennaretti, Roma Tre University, Rome, Italy; C. Testa, National Research Council (CNR), Rome, Italy	1830 hrs AIAA-2019-2579 <b>Noise Reduction Using a Direct-Hybrid CFD/CAA Method</b> A. Niemöller, M. Meinke, W. Schroeder, RWTH Aachen University, Aachen, Germany; T. Albring, N. Gauger, Technical University of Kaiserslautern, Kaiserslautern, Germany		
<b>Tuesday, 21 May 2019</b>			
<b>74-DA-8</b>	<b>Duct Acoustics VIII</b>		<b>Lecture Room C</b>
Chaired by: D. SUTLIFF, NASA Glenn Research Center and W. EVERSMAN, Missouri University of Science and Technology			
1800 hrs AIAA-2019-2580 <b>Modelling of Over-The-Rotor Acoustic Treatments for Improved Noise Suppression in Turbofan Engines</b> S. Palreja-Cabre, B. Tester, R. Astley, University of Southampton, Southampton, United Kingdom; R. Bozak, NASA Glenn Research Center, Cleveland, OH	1830 hrs AIAA-2019-2581 <b>Effects of turbofan engine intake droop and length on fan tone noise</b> L. Xiong, R. Sugimoto, E. Quaranta, University of Southampton, Southampton, United Kingdom	1900 hrs AIAA-2019-2582 <b>Design and Acoustic Efficacy of a Broadband Liner for the Inlet of the DGEN Aero-propulsion Research Turbofan</b> D. Sutliff, NASA Glenn Research Center, Cleveland, OH; D. Nark, M. Jones, N. Schiller, NASA Langley Research Center, Hampton, VA	
<b>Tuesday, 21 May 2019</b>			
<b>75-JA-8</b>	<b>Jet Aeroacoustics VIII</b>		<b>Senate Hall</b>
Chaired by: G. STICH and A. TOWNE, University of Michigan, Ann Arbor			
1800 hrs AIAA-2019-2583 <b>Wavelet-based Procedure for the Identification of Signatures of the Azimuthal Modes for Broadband Shock-associated Noise</b> C. Pérez Arroyo, S. Moreau, University of Sherbrooke, Sherbrooke, Canada	1830 hrs AIAA-2019-2584 <b>A Parabolised Stability Equation based Broadband Shock-Associated Noise Model</b> M. Wong, D. Edgington-Mitchell, D. Honnery, Monash University, Monash, Australia; A. Cavalieri, Technological Institute of Aeronautics (ITA), São Carlos, Brazil; P. Jordan, National Center for Scientific Research (CNRS), Poitiers, France		



<b>Tuesday, 21 May 2019</b>			
<b>76-PRVSN-5</b>	<b>Propeller, Rotorcraft and V/STOL Noise V</b>		<b>Frans van Hasselt Room</b>
Chaired by: H. BROUWER and W. ANEMAAT, DARcorporation			
1800 hrs AIAA-2019-2585 <b>Noise from a Rotor Ingesting a Turbulent Boundary Layer Using Very-Large Eddy Simulations</b> I. Gonzalez-Martino, Dassault Group, Paris, France; D. Casalino, Delft University of Technology, Delft, The Netherlands	1830 hrs AIAA-2019-2586 <b>Multi-rotor noise scattering by a drone fuselage</b> H. Jiang, T. Zhou, R. Fattah, X. Zhang, Hong Kong University of Science and Technology, Hong Kong, Hong Kong; X. Huang, Peking University, Beijing, China	1900 hrs AIAA-2019-2587 <b>Acoustic characteristics of a quad-copter under realistic flight conditions</b> T. Zhou, H. Jiang, Y. Sun, R. Fattah, X. Zhang, Hong Kong University of Science and Technology, Kowloon, Hong Kong; B. Huang, China Aerodynamics Research and Development Center (CARDC), Mianyang, China; et al.	

<b>Tuesday, 21 May 2019</b>			
<b>77-WS/FON-1</b>	<b>Special Session on Phased Array Measurements of Fly-over Noise</b>		<b>Committee Room 2</b>
1800 - 1900 hrs			
Specialist meeting to share experiences and expectations of aircraft flyover phased array testing. Discussing issues and questions such as: What are the purposes of this type of measurement now and in the future? Clearly source diagnostics, but how about certification? Modelling? What are the site requirements? How large does the array need to be? How do the processing techniques interact with the array design and the quality and timeliness of the final product?			

<b>Tuesday, 21 May 2019</b>			
<b>78-TCN-5</b>	<b>Turbomachinery and Core Noise V</b>		<b>Auditorium</b>
Chaired by: J. WINKLER, United Technologies Research Center and L. ENGHARDT, DLR - German Aerospace Center			
1800 hrs AIAA-2019-2588 <b>Transfer-Function Determination for Infinite-Tube-Probe Pressure Transducers with Application to Turbofan Core/Combustor Noise</b> D. Boyle, B. Henderson, L. Hultgren, NASA Glenn Research Center, Cleveland, OH	1830 hrs AIAA-2019-2589 <b>Assessment of the Impact of a Heterogeneous Stator on the Noise of an Axial-Flow Low Mach-number Stage</b> M. Pestana, École Centrale de Lyon, Lyon, France; M. Sanjose, University of Sherbrooke, Sherbrooke, Canada; S. Moreau, M. Roger, École Centrale de Lyon, Lyon, France; M. Gruber, Safran Group, Moissy-Cramayel, France	1900 hrs AIAA-2019-2590 <b>On the coherence of the sound mode in fan inlet</b> W. Qiao, K. Xu, L. Wang, H. Tong, L. Li, Northwestern Polytechnical University, Xi'an, China	

### Wednesday

<b>Wednesday, 22 May 2019</b>			
<b>79-DA-9</b>	<b>Duct Acoustics IX</b>		<b>Lecture Room C</b>
Chaired by: J. ALONSO-MIRALLES, UTC Aerospace Systems and S. RIENSTRA, Technische Universiteit Eindhoven			
0800 hrs AIAA-2019-2591 <b>Effect of Geometric Shape of Coupled Helmholtz Resonators on Aeroacoustics Damping Performance</b> D. Zhao, University of Canterbury, Christchurch, New Zealand; C. Ji, M. Yin, Nanyang Technological University, Singapore, Singapore	0830 hrs AIAA-2019-2592 <b>Numerical Investigation of the Effect of Grazing Flow to Sound Absorption on Helmholtz Resonator</b> D. Sasaki, T. Iwafune, H. Toh, Kanazawa Institute of Technology, Hakusan, Japan; T. Ishii, Japan Aerospace Exploration Agency (JAXA), Chofu, Japan	0900 hrs AIAA-2019-2593 <b>The Role of Global Thermoacoustic Modes in Energy Exchange of a Finite-length Thermally-driven Duct</b> S. Kumar, University of Twente, Enschede, The Netherlands; A. Samanta, Indian Institute of Science, Bengaluru, India	0930 hrs AIAA-2019-2594 <b>Solutions and Properties of the Pridmore-Brown equation</b> S. Rienstra, Eindhoven University of Technology, Eindhoven, The Netherlands

<b>Wednesday, 22 May 2019</b>			
<b>80-JA-9</b>	<b>Jet Aeroacoustics IX</b>		<b>Senate Hall</b>
Chaired by: C. BOGEY, Ecole Centrale de Lyon and C. TINNEY, Applied Research Laboratories			
0800 hrs AIAA-2019-2595 <b>Acoustic Characteristics of Compressible Jet from Different Nozzle exit Geometry</b> S. Nikam, S. Bhikole, K J Somaiya College of Engineering, Mumbai, India; M. Suvagiya, Indian Institute of Technology Bombay, Mumbai, India	0830 hrs AIAA-2019-2596 <b>Experimental and Numerical Investigation of Jet Noise Reduction Using Fluid Inserts for Rectangular Nozzle with Aspect Ratio of 2</b> J. Akatsuka, Japan Aerospace Exploration Agency (JAXA), Mitaka, Japan; S. Hromisin, D. McLaughlin, P. Morris, Pennsylvania State University, State College, PA	0900 hrs AIAA-2019-2597 <b>Streaks and coherent structures in jets from round and serrated nozzles</b> G. Rigas, E. Pickering, California Institute of Technology, Pasadena, CA; O. Schmidt, University of California, San Diego, La Jolla, CA; P. Nogueira, A. Cavalieri, Technological Institute of Aeronautics (ITA), São José dos Campos, Brazil; G. Brès, Cascade Technologies, Inc., Palo Alto, CA; et al.	0930 hrs AIAA-2019-2598 <b>Acoustic modes from a Mach 3 jet</b> C. Tinney, University of Texas, Austin, Austin, TX; C. Schram, von Kármán Institute for Fluid Dynamics, Rhode-Saint-Genèse, Belgium

<b>Wednesday, 22 May 2019</b>			
<b>81-SS/ALR-1</b>	<b>Special Session on IFAR Acoustic Liner Research I</b>		<b>Blue Room</b>
Chaired by: M. JONES, NASA-Langley Research Center and H. BODEN, KTH			
0800 hrs AIAA-2019-2599 <b>Overview of Liner Activities in Support of the International Forum for Aviation Research</b> M. Jones, D. Nark, B. Howerton, NASA Langley Research Center, Hampton, VA	0830 hrs AIAA-2019-2600 <b>Impedance measurements for 3-D printed liners</b> H. Boden, S. Sack, S. Jacob, Royal Institute of Technology (KTH), Stockholm, Sweden	0900 hrs AIAA-2019-2601 <b>IFAR Liner Benchmark - Challenge #1 - DLR</b> F. Bake, R. Burgmayer, A. Schulz, L. Enghardt, German Aerospace Center (DLR), Berlin, Germany	0930 hrs AIAA-2019-2602 <b>Experimental Study of Acoustic Liner Panels Shared in IFAR Program</b> T. Ishii, K. Nagai, H. Oinuma, S. Enomoto, Japan Aerospace Exploration Agency (JAXA), Tokyo, Japan
<b>Wednesday, 22 May 2019</b>			
<b>82-TCN-6</b>	<b>Turbomachinery and Core Noise VI</b>		<b>Orange Room</b>
Chaired by: A. WILSON and L. HULTGREN, NASA Glenn Research Center			
0800 hrs AIAA-2019-2603 <b>New modular fan rig for advanced aeroacoustic tests - Acoustic characterization of the facility</b> E. Salze, A. Pereira, P. Souchoffe, École Centrale de Lyon, Ecully, France; J. Regnard, F. Geo-Aguilera, M. Gruber, Safran Group, Moissy-Cramayel, France	0830 hrs AIAA-2019-2604 <b>New modular fan rig for advanced aeroacoustic tests - Modal decomposition on a 20" UHBR fan stage</b> A. Pereira, E. Salze, École Centrale de Lyon, Ecully, France; J. Regnard, F. Geo-Aguilera, M. Gruber, Safran Group, Villaroche, France	0900 hrs AIAA-2019-2605 <b>Shockwave Generation and Radiation from an UHBR Engine with Flow Distortion Using a CFD/CAA Chaining Strategy</b> M. Daroukh, C. Polacek, A. Chelius, ONERA, Châtillon, France	0930 hrs AIAA-2019-2606 <b>Tone Noise Predictions of a Full-Scale UHBR Engine at Approach Condition with Inflow Distortion Effects</b> T. Le Garrec, C. Polacek, A. Chelius, M. Daroukh, ONERA, Châtillon, France; B. François, ONERA, Meudon, France
<b>Wednesday, 22 May 2019</b>			
<b>83-A/FDI-9</b>	<b>Acoustic/Fluid Dynamics Interactions IX</b>		<b>Rhythm</b>
Chaired by: H. ATASSI, University of Notre Dame and E. ARCONDOULIS, Southern University of Science and Technology (SUSTech)			
0830 hrs AIAA-2019-2607 <b>An investigation of the facility effects on NACA0012 airfoil tonal noise</b> E. Arcondoulis, Y. Liu, P. Xu, Southern University of Science and Technology, Shenzhen, China	0900 hrs AIAA-2019-2608 <b>Experimental study on the far field acoustic characteristics of a NACA0012 airfoil with rime ice on the leading edge</b> C. Xiao, China Aerodynamics Research and Development Center (CARD), Mianyang, China; P. Joseph, University of Southampton, Southampton, United Kingdom; K. Yu, China Aerodynamics Research and Development Center (CARD), Mianyang, China	0930 hrs AIAA-2019-2609 <b>An Experimental Investigation on the Mechanism of Tollmien-Schlichting Waves for a NACA 0012 Aerofoil</b> B. Zang, Y. Mayer, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom	
<b>Wednesday, 22 May 2019</b>			
<b>84-A/HLN-9</b>	<b>Airframe/High-Lift Noise IX</b>		<b>Committee Room 3</b>
Chaired by: D. CASALINO, EXA GmbH and Y. GUO, NEAT Consulting			
0830 hrs AIAA-2019-2610 <b>On Aircraft Trailing Edge Noise</b> Y. Guo, NEAT Consulting, Seal Beach, CA; R. Thomas, NASA Langley Research Center, Hampton, VA	0900 hrs AIAA-2019-2611 <b>An Experimental Study on the Reduction of Airfoil Trailing-edge Noise Using a Single-Leg Spiral Array in an Anechoic Wind Tunnel</b> W. Qiao, W. Chen, F. Tong, H. Tong, L. Li, Northwestern Polytechnical University, Xi'an, China	0930 hrs AIAA-2019-2612 <b>Effect of sweep angle and of wall-pressure statistics on the free-field directivity of airfoil trailing-edge noise</b> G. Grasso, M. Roger, École Centrale de Lyon, Ecully, France; S. Moreau, University of Sherbrooke, Sherbrooke, Canada	

<b>Wednesday, 22 May 2019</b>			
<b>85-CAA-9</b>	<b>Computational Aeroacoustics IX</b>		<b>Theater Hall</b>
Chaired by: U. IEMMA, University of Rome III and R. MARTIN, Universidad Politecnica de Cataluña			
0830 hrs AIAA-2019-2613 <b>Numerical Analysis of Acoustic Liner Performance in grazing flow</b> S. Enomoto, T. Ishii, T. Nishizawa, Japan Aerospace Exploration Agency (JAXA), Chofu, Japan; H. Toh, Kanazawa Institute of Technology, Nonoichi, Japan	0900 hrs AIAA-2019-2614 <b>Noise Radiated by an Open Cavity at M=0.1 and Re=5000</b> R. Martin, M. Soria Guerrero, Technical University of Catalonia, Barcelona, Spain; O. Lehmkuhl, Barcelona Supercomputing Center, Barcelona, Spain; A. Gorobets, A. Duben, Russian Academy of Sciences, Moscow, Russia; J. Cante, Technical University of Catalonia, Barcelona, Spain		
<b>Wednesday, 22 May 2019</b>			
<b>86-PRVSN-6</b>	<b>Propeller, Rotorcraft and V/STOL Noise VI</b>		<b>Frans van Hasselt Room</b>
Chaired by: S. GLEGG, Florida Atlantic University and S. GUERIN, DLR - German Aerospace Center			
0830 hrs AIAA-2019-2615 <b>Prediction of Noise from Low Reynolds Number Rotors with Different Number of Blades using a Non-Linear Vortex Lattice Method</b> Y. Jo, T. Jardin, R. Gojon, M. Jacob, J. Maschetta, Higher Institute of Aeronautics and Space (ISAE-SUPAERO), Toulouse, France	0900 hrs AIAA-2019-2616 <b>Aeroacoustic Analysis of Helicopter Rotors in Ground Effect</b> C. Pasquali, C. Poggi, G. Bernardini, J. Serafini, M. Gennaretti, Roma Tre University, Rome, Italy	0930 hrs AIAA-2019-2617 <b>Developing a comprehensive noise prediction system for generating noise abatement procedures</b> M. Botre, K. Brentner, J. Horn, Pennsylvania State University, State College, PA; D. Wachspress, Continuum Dynamics, Inc., Ewing, NJ	
<b>Wednesday, 22 May 2019</b>			
<b>87-A/FDI-10</b>	<b>Acoustic/Fluid Dynamics Interactions X</b>		<b>Rhythm</b>
Chaired by: H. ATASSI, University of Notre Dame and E. ARCONDOULIS, Southern University of Science and Technology (SUSTech)			
1030 hrs AIAA-2019-2618 <b>Experimental investigations of the sound emission of axial fans under the influence of suction-side heat exchangers</b> F. Czwielong, F. Krömer, S. Becker, University of Erlangen-Nürnberg, Erlangen, Germany	1100 hrs AIAA-2019-2619 <b>Experimental Investigation of Aerodynamic and Acoustic Characteristics of a Flapping Wing Micro-Air-Vehicle</b> S. Deng, J. Wang, Northwestern Polytechnical University, Xi'an, China; Y. Zhang, Dalian University of Technology, Dalian, China	1130 hrs AIAA-2019-2620 <b>An Experimental Investigation of Propeller Noise in Forward Flow</b> H. Wang, B. Zang, A. Celik, D. Rezgui, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom	
<b>Wednesday, 22 May 2019</b>			
<b>88-A/HLN-10</b>	<b>Airframe/High-Lift Noise X</b>		<b>Committee Room 3</b>
Chaired by: D. CASALINO, EXA GmbH and Y. GUO, NEAT Consulting			
1030 hrs AIAA-2019-2621 <b>Effects of non-uniform permeability on vortex shedding and noise control of blunt trailing edge</b> H. Liu, N. Chen, Z. Hu, Northwestern Polytechnical University, Xi'an, China	1100 hrs AIAA-2019-2622 <b>An experimental investigation of the effect of owl-inspired velvety coating on trailing edge noise</b> P. Zhou, G. Lui, X. Zhang, The Hong Kong University of Science and Technology, Hong Kong, Hong Kong	1130 hrs AIAA-2019-2623 <b>Experimental Study on Noise Reduction Using Brush-Serrated Trailing Edges</b> Y. Wang, D. Tang, K. Zhao, W. Li, B. Huang, China Aerodynamics Research and Development Center (CARD), Mianyang, China	
<b>Wednesday, 22 May 2019</b>			
<b>89-CAA-10</b>	<b>Computational Aeroacoustics X</b>		<b>Theater Hall</b>
Chaired by: U. IEMMA, University of Rome III and R. MARTIN, Universidad Politecnica de Cataluña			
1030 hrs AIAA-2019-2624 <b>Efficient Fan Broadband Noise Prediction Using Navier-Stokes Linearized Analysis</b> R. Blazquez Navarro, R. Corral, Technical University of Madrid, Madrid, Spain	1100 hrs AIAA-2019-2625 <b>Numerical Investigation of Noise Sources in a Single Airfoil Tip-Leakage Flow</b> R. Koch, M. Sanjose, S. Moreau, University of Sherbrooke, Sherbrooke, Canada	1130 hrs AIAA-2019-2626 <b>Acoustic Resonance Study with an Open-Jet Wind Tunnel Geometry Using a Time-Accurate Local-Time-Stepping CESE Method</b> C. Yen, E. Duell, S. Muller, Jacobs, Tullahoma, TN	

Wednesday, 22 May 2019			
90-DA-10	Duct Acoustics X		Lecture Room C
Chaired by: J. ALONSO-MIRALLES, UTC Aerospace Systems and S. RIENSTRA, Technische Universiteit Eindhoven			
1030 hrs AIAA-2019-2627 <b>An Investigation of Bifurcation Acoustic Treatment Effects on Aft-Fan Engine Nacelle Noise</b> D. Nark, M. Jones, NASA Langley Research Center, Hampton, VA	1100 hrs AIAA-2019-2628 <b>Numerical modeling of the flow acoustic behavior of sub-millimeter orifices in 3D using linearized Navier-Stokes equations</b> S. Vandemaele, H. Denayer, W. De Roeck, W. Desmet, Catholic University of Leuven, Leuven, Belgium	1130 hrs AIAA-2019-2629 <b>Acoustic Liner Impedance Eduction using Parameter Estimation and the Linearized Navier-Stokes Equations</b> M. Herring Jensen, COMSOL A/S, Lyngby, Denmark; E. Svensson, COMSOL AB, Stockholm, Sweden; K. Shaposhnikov, COMSOL A/S, Lyngby, Denmark	

Wednesday, 22 May 2019			
91-EUAN-1	Emerging Urban Aviation Noise I		Committee Room 2
Chaired by: S. RIZZI, NASA Langley Research Center and S. LEE, University of California, Davis			
1030 hrs AIAA-2019-2630 <b>On the use of Acoustic Wind Tunnel Data for the Simulation of sUAS Flyover Noise</b> S. Rizzi, N. Zawodny, N. Pettingill, NASA Langley Research Center, Hampton, VA	1100 hrs AIAA-2019-2631 <b>Acoustic Analysis of a Quadrotor eVTOL Design via High-Fidelity Simulations</b> Z. Jia, S. Lee, University of California, Davis, CA	1130 hrs AIAA-2019-2632 <b>Towards High-fidelity Analysis of Noise Radiation and Control of Propeller-driven UAV</b> R. Mankbadi, S. Afari, V. Golubev, Embry-Riddle Aeronautical University, Daytona Beach, FL	

Wednesday, 22 May 2019			
92-JA-10	Jet Aeroacoustics X		Senate Hall
Chaired by: C. BOGEY, Ecole Centrale de Lyon and C. TINNEY, Applied Research Laboratories			
1030 hrs AIAA-2019-2633 <b>Coherence Analysis of the Noise from a Simulated Highly-heated Laboratory-scale Jet</b> K. Leete, K. Gee, Brigham Young University, Provo, UT; J. Liu, Naval Research Laboratory, Washington, D.C.; A. Wall, Air Force Research Laboratory, Wright-Patterson AFB, OH	1100 hrs AIAA-2019-2634 <b>Experimental Research of Installed Jet Noise</b> X. Xu, X. Li, Beihang University, Beijing, China	1130 hrs AIAA-2019-2635 <b>Sampling Artifacts in Quantitative Schlieren</b> T. Hay, J. Valdez, C. Tinney, M. Hamilton, University of Texas, Austin, TX; C. Schram, von Kármán Institute for Fluid Dynamics, Waterloo, Belgium	

Wednesday, 22 May 2019			
93-PRVSN-7	Propeller, Rotorcraft and V/STOL Noise VII		Frans van Hasselt Room
Chaired by: S. GLEGG, Florida Atlantic University and S. GUERIN, DLR - German Aerospace Center			
1030 hrs AIAA-2019-2636 <b>Turbulence Ingestion Noise in Complex Flows</b> S. Glegg, N. Perry, Florida Atlantic University, Boca Raton, FL; W. Devenport, Virginia Polytechnic Institute and State University, Blacksburg, VA	1100 hrs AIAA-2019-2637 <b>Application of a Combined Method for the Investigation of Turbomachinery Noise Sources: Beamforming and Proper Orthogonal Decomposition</b> B. Fenyvesi, Budapest University of Technology and Economics, Budapest, Hungary; J. Kriegseis, Karlsruhe Institute of Technology, Karlsruhe, Germany; C. Horváth, Budapest University of Technology and Economics, Budapest, Hungary		

<b>Wednesday, 22 May 2019</b>			
<b>94-SS/ALR-2</b>	<b>Special Session on IFAR Acoustic Liner Research II</b>		<b>Blue Room</b>
Chaired by: M. JONES, NASA-Langley Research Center and H. BODEN, KTH			
1030 hrs AIAA-2019-2638 <b>Experimental Investigation of Mean Flow Profile Effects on Impedance Education for Multi-Segment Liners</b> N. Ostrikov, M. Yakovets, M. Ipatov, S. Denisov, TsAGI, Moscow, Russia	1100 hrs AIAA-2019-2639 <b>Liner Impedance Education under shear grazing flow for high sound pressure level</b> F. Mery, V. Lafont, R. Roncen, F. Simon, E. Piot, ONERA, Toulouse, France	1130 hrs AIAA-2019-2640 <b>Investigation of Sound Propagation in Rectangular Duct with Transversally Non-uniform Flow and Anisotropic Wall Impedance by Asymptotic Theory and 3D Finite Element Method</b> S. Denisov, N. Ostrikov, M. Yakovets, M. Ipatov, TsAGI, Moscow, Russia	

<b>Wednesday, 22 May 2019</b>			
<b>95-TCN-7</b>	<b>Turbomachinery and Core Noise VII</b>		<b>Orange Room</b>
Chaired by: A. WILSON and L. HULTGREN, NASA Glenn Research Center			
1030 hrs AIAA-2019-2641 <b>A Fast Prediction Method for Rotor Buzz-saw Noise based on an Analytical Approach</b> A. Moreau, M. Staggat, German Aerospace Center (DLR), Berlin, Germany; C. Gscheidle, RWTH Aachen University, Aachen, Germany	1100 hrs AIAA-2019-2642 <b>1/3-Octave Analysis of Core/Combustor-Noise Measurements for the DGEN Aeropropulsion Research Turbofan with Application to Noise Prediction</b> L. Hultgren, D. Boyle, B. Henderson, NASA Glenn Research Center, Cleveland, OH	1130 hrs AIAA-2019-2643 <b>Wall-Modeled Large-Eddy Simulation and Direct Numerical Simulation of Broadband Trailing Edge Noise from a NACA 0012 Airfoil</b> M. Mehrabadi, D. Bodony, University of Illinois, Urbana-Champaign, Urbana, IL	

<b>Wednesday, 22 May 2019</b>			
<b>96-LUNCH-3</b>	<b>Wednesday Lunch</b>		<b>Foyer - Aula Conference Centre</b>
1200 - 1300 hrs			

<b>Wednesday, 22 May 2019</b>			
<b>97-PLNRY-3</b>	<b>Wednesday Afternoon Plenary - AIAA Aeroacoustics Award 2019 Lecture and Ceremony</b>		<b>Auditorium</b>
1300 - 1400 hrs			
The AIAA Aeroacoustics Award was established in 1973 and is presented annually for an outstanding technical or scientific achievement resulting from an individual's contribution to the field of aircraft community noise reduction.			
William J. Deavenport, Virginia Tech has been chosen as the recipient of the 2019 AIAA Aeroacoustics Award.			

<b>Wednesday, 22 May 2019</b>			
<b>98-A/FDI-11</b>	<b>Acoustic/Fluid Dynamics Interactions XI</b>		<b>Blue Room</b>
Chaired by: A. SAMANTA, Indian Institute of Science and W. VAN DER VELDEN, Dassault Systemes Deutschland GmbH			
1400 hrs AIAA-2019-2644 <b>Investigation of slat noise on high-lift configuration using active backscatter model in LES</b> D. Heitmann, R. Ewert, German Aerospace Center (DLR), Braunschweig, Germany	1430 hrs AIAA-2019-2645 <b>Numerical Investigation of the Effect of various High-Speed Train Roof Configurations on Aerodynamic Noise</b> H. Kim, Z. Hu, D. Thompson, University of Southampton, Southampton, United Kingdom	1500 hrs AIAA-2019-2646 <b>Towards digital noise certification of serrated wind turbines</b> W. van der Velden, D. Casalino, Dassault Group, Stuttgart, Germany	

Wednesday, 22 May 2019			
99-A/FDI-12	Acoustic/Fluid Dynamics Interactions XII		Rhythm
Chaired by: C. SCHRAM, von Karman Institute for Fluid Dynamics and M. KALTENBACHER, Vienna University of Technology			
1400 hrs AIAA-2019-2647 <b>Modelling Pressure Distribution on Porous Airfoils Using Conformal Mapping</b> S. Luesutthiviboon, D. Ragni, F. Avallone, M. Snellen, D. Casalino, D. G. Simons, Delft University of Technology, Delft, The Netherlands	1430 hrs AIAA-2019-2648 <b>The internal and external flow fields of a structured porous coated cylinder and implications on flow-induced noise</b> E. Arcondoulis, Southern University of Science and Technology, Shenzhen, China; D. Ragni, A. Rubio Carpio, F. Avallone, Delft University of Technology, Delft, The Netherlands; Y. Liu, Y. Yang, Southern University of Science and Technology, Shenzhen, China; et al.	1500 hrs AIAA-2019-2649 <b>Experimental Investigation of Airfoil Turbulence-Impingement Noise Reduction Using Porous Treatment</b> R. Zamponi, N. Van de Weyer, C. Schram, von Kármán Institute for Fluid Dynamics, Rhode-Saint-Genèse, Belgium	
Wednesday, 22 May 2019			
100-A/HLN-11	Airframe/High-Lift Noise XI		Committee Room 3
Chaired by: Y. GUO, NEAT Consulting and D. FISCALETTI			
1400 hrs AIAA-2019-2650 <b>Numerical Analysis of Metal-Foam Application for Trailing Edge Noise Reduction</b> C. Teruna, Delft University of Technology, Delft, The Netherlands; F. Manegar, University of Siegen, Siegen, Germany; F. Avallone, D. Casalino, D. Ragni, A. Rubio Carpio, Delft University of Technology, Delft, The Netherlands; et al.	1430 hrs AIAA-2019-2651 <b>Uniform Suction for the Reduction of the Trailing-Edge Noise</b> M. Szoke, D. Fiscoletti, M. Azarpeyvand, University of Bristol, Bristol, United Kingdom		
Wednesday, 22 May 2019			
101-ATT-4	Advanced Testing Techniques IV		Frans van Hasselt Room
Chaired by: S. BOIJ, KTH and P. SIJTSMA, PSA3			
1400 hrs AIAA-2019-2652 <b>Comparison of In-Duct Phased Array Measurements</b> W. Schuster, T. Marotta, Honeywell International, Inc., Phoenix, AZ	1430 hrs AIAA-2019-2653 <b>Beamforming and other methods for denoising microphone array data</b> P. Sijtsma, PSA3, Wezep, The Netherlands; A. Dinsenmeyer, J. Antoni, Q. Leclere, University of Lyon, Villeurbanne, France	1500 hrs AIAA-2019-2654 <b>Installed jet noise source analysis by microphone array processing</b> R. Davy, F. Mortain, M. Huet, T. Le Garrec, ONERA, Châtillon, France	
Wednesday, 22 May 2019			
102-CAA-11	Computational Aeroacoustics XI		Theater Hall
Chaired by: Y. DETANDT, Free Field Technologies and R. ARINA, Politecnico di Torino			
1400 hrs AIAA-2019-2655 <b>Optimization of serrations for broadband trailing-edge noise reduction using an analytical model</b> P. Kholodov, S. Moreau, University of Sherbrooke, Sherbrooke, Canada	1430 hrs AIAA-2019-2656 <b>Simulation of Instability Wavetrains and Their Radiated Sound in Supersonic Jet Using New Hybrid Approach</b> Y. Fang, S. Meng, L. Ma, Tianjin University, Tianjin, China	1500 hrs AIAA-2019-2657 <b>Investigation on Noise from Shock/Isotropic Turbulence Interaction Using Direct Numerical Simulation</b> F. Shi, Z. Gao, C. Jiang, C. Lee, Beihang University, Beijing, China	
Wednesday, 22 May 2019			
103-DA-11	Duct Acoustics XI		Lecture Room C
Chaired by: E. PIOT, ONERA and J. GOLLIARD, CTTM			
1400 hrs AIAA-2019-2658 <b>Comparison of three numerical methods for acoustic propagation in a lined duct with flow</b> Y. Deng, D. Dragna, M. Galland, A. Alomar, University of Lyon, Ecully, France	1430 hrs AIAA-2019-2659 <b>Numerical Simulation of Nonlinear Effect of Wire mesh Liner based on Finite Element Method in Time Domain</b> X. Zhang, X. Qiu, X. Jing, X. Sun, Beihang University, Beijing, China	1500 hrs AIAA-2019-2660 <b>Numerical and Experimental Investigations on the Flow Drag of a Multi-slit Acoustic Liner</b> C. Chen, X. Li, Y. Liu, Beihang University, Beijing, China	

<b>Wednesday, 22 May 2019</b>			
<b>104-EUAN-2</b>	<b>Emerging Urban Aviation Noise II</b>		<b>Committee Room 2</b>
Chaired by: S. RIZZI, NASA Langley Research Center and S. LEE, University of California, Davis			
1400 hrs AIAA-2019-2661 <b>Propeller Noise Predictions Using the Lattice Boltzmann Method</b> J. Kocheemoolayil, G. Stich, M. Barad, C. Kiris, NASA Ames Research Center, Moffett Field, CA	1430 hrs AIAA-2019-2662 <b>Aeroacoustic Analysis of Urban Air Operations Using the LB/VLES Method</b> D. Casalino, W. van der Velden, G. Romani, Dassault Group, Stuttgart, Germany; I. Gonzalez-Martino, Dassault Group, Paris, France	1500 hrs AIAA-2019-2663 <b>The Effect of Inflow Disturbance on Drone Propeller Noise</b> Y. Yauwenas, J. Fischer, D. Moreau, C. Doolan, University of New South Wales, Sydney, Australia	
<b>Wednesday, 22 May 2019</b>			
<b>105-JA-11</b>	<b>Jet Aeroacoustics XI</b>		<b>Senate Hall</b>
Chaired by: K. LOWE, Virginia Tech and D. EDGINGTON-MITCHELL, Monash University			
1400 hrs AIAA-2019-2664 <b>Crackle-related beamforming of military jet aircraft noise</b> A. Vaughn, K. Gee, Brigham Young University, Provo, UT; S. Swift, Argonne National Laboratory, Lemont, IL; A. Wall, Air Force Research Laboratory, Wright-Patterson AFB, OH; J. Downing, M. James, Blue Ridge Research and Consulting, LLC, Asheville, NC	1430 hrs AIAA-2019-2665 <b>Low-Order Models of Dual-Stream Jet Noise with Temperature Effects Based on the Goldstein Generalised Acoustic Analogy</b> V. Gryazev, Queen Mary University of London, London, United Kingdom; A. Markesteijn, GPU-prime, Ltd., Cambridge, United Kingdom; S. Karabasov, Queen Mary University of London, London, United Kingdom	1500 hrs AIAA-2019-2666 <b>Numerical Simulation of the Noise from a Subsonic Jet in Static and Flight Conditions</b> J. Gao, X. Li, Beihang University, Beijing, China	
<b>Wednesday, 22 May 2019</b>			
<b>106-TCN-8</b>	<b>Turbomachinery and Core Noise VIII</b>		<b>Orange Room</b>
Chaired by: A. ALI, United Technologies Corporation and H. BROUWER			
1400 hrs AIAA-2019-2667 <b>On the Use of RANS-informed Analytical Models to Perform Broadband Rotor-Stator Interaction Noise Predictions</b> D. Lewis, S. Moreau, M. Jacob, École Centrale de Lyon, Ecully, France	1430 hrs AIAA-2019-2668 <b>Analysis of fan-stage gap flow data generated using an LBM/VLES method</b> S. Grace, Boston University, Boston, MA; I. Gonzalez-Martino, Exa Corporation, Paris, France; D. Casalino, Delft University of Technology, Delft, The Netherlands	1500 hrs AIAA-2019-2669 <b>Phased array beamforming to identify broadband noise sources in the interstage section of a turbofan engine</b> H. Brouwer, Netherlands Aerospace Centre, Amsterdam, The Netherlands; P. Sijtsma, PSA3, Wezep, The Netherlands	
<b>Wednesday, 22 May 2019</b>			
<b>107-WS/FBN-1</b> <b>1400 - 1530 hrs</b>	<b>Workshop/Fan Broadband Noise Prediction I</b>		<b>Photo Studio</b>
The workshop serves as a forum for assessing the current state of the art using a portfolio of benchmark problems for which information on the mean flow, turbulence characteristics, and the sound field exists. The goals of the workshop are to identify the shortcomings of existing analytic and simulation approaches, and chart the course of the future research in fan broadband noise modelling and prediction.			
<b>Wednesday, 22 May 2019</b>			
<b>108-A/FDI-13</b>	<b>Acoustic/Fluid Dynamics Interactions XIII</b>		<b>Rhythm</b>
Chaired by: C. SCHRAM, von Karman Institute for Fluid Dynamics and M. KALTENBACHER, Vienna University of Technology			
1600 hrs AIAA-2019-2670 <b>Prediction of the onset of sound amplification at shear layers using linear stability analysis</b> M. Karlsson, Escenda Engineering AB, Göteborg, Sweden; C. Weng, Volvo Car Corporation, Göteborg, Sweden; G. Majal, Royal Institute of Technology (KTH), Stockholm, Sweden; M. Knutsson, Volvo Car Corporation, Göteborg, Sweden	1630 hrs AIAA-2019-2671 <b>Effect of aspect ratios on flow and noise from cuboids</b> Y. Wang, D. Thompson, Z. Hu, University of Southampton, Southampton, United Kingdom	1700 hrs AIAA-2019-2672 <b>Aeroacoustic formulation for flow-acoustic feedback</b> M. Kaltenbacher, S. Schoder, Technical University of Vienna, Vienna, Austria	

<b>Wednesday, 22 May 2019</b>			
<b>109-A/HLN-12</b>	<b>Airframe/High-Lift Noise XII</b>		<b>Committee Room 3</b>
Chaired by: Y. GUO, NEAT Consulting and D. FISCALETTI			
1600 hrs AIAA-2019-2673 <b>Numerical Study of 3-D Finlets Using RANS CFD for Trailing Edge Noise Reduction</b> Y. Shi, S. Lee, University of California, Davis, Davis, CA	1630 hrs AIAA-2019-2674 <b>Serrated leading-edge and trailing-edge noise prediction models for realistic wavenumber frequency spectra</b> B. Lyu, L. Ayton, University of Cambridge, Cambridge, United Kingdom	1700 hrs AIAA-2019-2675 <b>Trailing Edge Noise Prediction of Wind Turbine Airfoils: A Benchmark Exercise</b> O. Ferret Gosch, S. Oerlemans, Siemens, Brande, Denmark; F. Bertagnolio, A. Fischer, Risø Technical University of Denmark, Roskilde, Denmark; B. Arnold, T. Lutz, University of Stuttgart, Stuttgart, Germany; et al.	
<b>Wednesday, 22 May 2019</b>			
<b>110-ATT-5</b>	<b>Advanced Testing Techniques V</b>		<b>Frans van Hasselt Room</b>
Chaired by: S. BOIJ, KTH and P. SIJTSMA, PSA3			
1600 hrs AIAA-2019-2676 <b>Performance of the Matrix Pencil algorithm in direct impedance eduction of liners: some numerical experiments</b> T. Humbert, R. Delalande, G. Gabard, University of Le Mans, Le Mans, France; J. Golliard, Le Mans Technology Transfer Center, Le Mans, France; Y. Auregan, University of Le Mans, Le Mans, France	1630 hrs AIAA-2019-2677 <b>Filtered Rayleigh Scattering for Velocity and Temperature Measurements of a Heated Supersonic Jet with Thermal Non-Uniformity</b> A. Saltzman, M. Boyda, K. Lowe, W. Ng, Virginia Polytechnic Institute and State University, Blacksburg, VA	1700 hrs AIAA-2019-2678 <b>Improvements to the array reduction method for acoustic beamforming array designs</b> E. Arcondoulis, Y. Liu, P. Xu, Southern University of Science and Technology, Shenzhen, China; N. Chen, Northwestern Polytechnical University, Xi'an, China	
<b>Wednesday, 22 May 2019</b>			
<b>111-CAA-12</b>	<b>Computational Aeroacoustics XII</b>		<b>Theater Hall</b>
Chaired by: Y. DETANDT, Free Field Technologies and R. ARINA, Politecnico di Torino			
1600 hrs AIAA-2019-2679 <b>2D Simulations of Multiple Pure Tone Noise Generated by Complex Shock Structures in Nacelle</b> X. Tang, X. Li, Beihang University, Beijing, China	1630 hrs AIAA-2019-2680 <b>Aeroacoustic Reduced-Order Models Based on a priori/posteriori Data Analysis</b> R. Arina, O. Pinti, Technical University of Turin, Turin, Italy	1700 hrs AIAA-2019-2681 <b>Parametric study of multiple aerofoil self-noise sources using direct noise computation</b> M. Deuse, R. Sandberg, University of Melbourne, Melbourne, Australia	
<b>Wednesday, 22 May 2019</b>			
<b>112-DA-12</b>	<b>Duct Acoustics XII</b>		<b>Lecture Room C</b>
Chaired by: E. PIOT, ONERA and J. GOLLIARD, CTTM			
1600 hrs AIAA-2019-2682 <b>MAINE Flow: Experimental facility for characterization of liners subjected to representative acoustical excitation and grazing flow</b> J. Golliard, J. Leroux, E. Portier, Le Mans Technology Transfer Center, Le Mans, France; T. Humbert, Y. Auregan, University of Le Mans, Le Mans, France	1630 hrs AIAA-2019-2683 <b>Acoustic Liner Drag Measurements</b> J. Gustavsson, Y. Zhang, L. Cattafesta, Florida State University, Tallahassee, FL; J. Kreitzman, The Boeing Company, Hazelwood, MO		
<b>Wednesday, 22 May 2019</b>			
<b>113-EUAN-3</b>	<b>Emerging Urban Aviation Noise III</b>		<b>Committee Room 2</b>
Chaired by: S. RIZZI, NASA Langley Research Center and S. LEE, University of California, Davis			
1600 hrs AIAA-2019-2684 <b>Prediction of small quadrotor blade induced noise</b> A. Thai, S. Grace, Boston University, Boston, MA	1630 hrs AIAA-2019-2685 <b>Noise prediction of drones in urban environments</b> H. Bian, R. Fattah, Y. Sun, X. Zhang, Hong Kong University of Science and Technology, Hong Kong, Hong Kong	1700 hrs AIAA-2019-2686 <b>Predicting Community Noise of sUAS</b> W. Alexander, J. Whelchel, N. Intaratap, A. Trani, Virginia Polytechnic Institute and State University, Blacksburg, VA	



<b>Wednesday, 22 May 2019</b>			
<b>114-JA-12</b>	<b>Jet Aeroacoustics XII</b>		<b>Senate Hall</b>
Chaired by: K. LOWE, Virginia Tech and D. EDGINGTON-MITCHELL, Monash University			
1600 hrs AIAA-2019-2687 <b>Improvement of jet flow simulations using ZDES mode 3 and silent turbulence generation</b> F. Gand, M. Huet, ONERA, Châtillon, France	1630 hrs AIAA-2019-2688 <b>Effect of Fluid Inserts on Low Order Models of Jet Noise Reduction</b> C. Prasad, P. Morris, Pennsylvania State University, State College, PA	1700 hrs AIAA-2019-2689 <b>Modulation of downstream-propagating waves in aeroacoustic resonance</b> D. Edgington-Mitchell, D. Duke, Monash University, Clayton, Australia; T. Wang, University of Michigan, Ann Arbor, MI; D. Harris, Monash University, Clayton, Australia; O. Schmidt, University of California, San Diego, San Diego, CA; V. Jaunet, National Center for Scientific Research (CNRS), Poitiers, France; et al.	

<b>Wednesday, 22 May 2019</b>			
<b>115-TCN-9</b>	<b>Turbomachinery and Core Noise IX</b>		<b>Orange Room</b>
Chaired by: A. ALI, United Technologies Corporation and H. BROUWER			
1600 hrs AIAA-2019-2690 <b>A Two-Dimensional Model of Sound Transmission Through Curved and Staggered OGV: Effect of Inter-Vane Channel Mode Transitions</b> L. Girier, M. Roger, Ecole Centrale de Lyon, Ecully, France; H. Bériot, Siemens, Leuven, Belgium; A. Lafitte, H. Passon, Safran Group, Moissy-Cramayel, France	1630 hrs AIAA-2019-2691 <b>Cavity Noise of Turbofan Engine Cooling Components</b> J. Winkler, United Technologies Corporation, East Hartford, CT; A. Ali, Pratt & Whitney, East Hartford, CT		

<b>Wednesday, 22 May 2019</b>			
<b>116-WS/FBN-2</b> <b>1600 - 1730 hrs</b>	<b>Workshop/Fan Broadband Noise Prediction II</b>		<b>Photo Studio</b>
The workshop serves as a forum for assessing the current state of the art using a portfolio of benchmark problems for which information on the mean flow, turbulence characteristics, and the sound field exists. The goals of the workshop are to identify the shortcomings of existing analytic and simulation approaches, and chart the course of the future research in fan broadband noise modelling and prediction.			

<b>Wednesday, 22 May 2019</b>			
<b>117-NW-2</b> <b>1730 - 2300 hrs</b>	<b>Wednesday Evening Dinner</b>		<b>Rotterdam Harbors</b>
We will enjoy the conference dinner while cruising the impressive Rotterdam harbours. Buses will drive all delegates to Rotterdam (bus departure at 17.45 hours in front of Aula Conference Centre) and back to the Delft Conference Centre after the dinner (arrival at approximately 23.00 hours). Once aboard you will enjoy the nostalgic atmosphere during dinner while the authentic paddle steamer from 1926 with its steam engine and giant paddles takes you through the largest harbour of Europe and many attractive sights of Rotterdam.			

**Thursday**

<b>Thursday, 23 May 2019</b>			
<b>118-A/FDI-14</b>	<b>Acoustic/Fluid Dynamics Interactions XIV</b>		<b>Rhythm</b>
Chaired by: D. JUVE, Ecole Centrale de Lyon and S. MANCINI, Airbus			
0830 hrs AIAA-2019-2692 <b>Effects of Wall modifications on pressure oscillations in high-subsonic and supersonic flows over rectangular cavities</b> S. Mancini, A. Kolb, Airbus, Manching, Germany; I. Gonzalez-Martino, D. Casalino, Exa Corporation, Paris, France	0900 hrs AIAA-2019-2693 <b>Rectangular Cavity Flow Noise Suppression Using Chevron Treatment to the Front Edge at Subsonic Speeds</b> K. Zhao, Y. Liang, T. Yue, Y. Wang, China Aerodynamics Research and Development Center (CARDC), Mianyang, China; G. Bennett, Trinity College Dublin, Dublin, Ireland	0930 hrs AIAA-2019-2694 <b>Computational Fluid Dynamics and Proper Orthogonal Decomposition based control of flow over supersonic cavities</b> A. Gelisli, S. Aradag, Y. Tascioglu, TOBB University of Economics and Technology, Ankara, Turkey; M. Ozer, Middle East Technical University, Ankara, Turkey	

Thursday, 23 May 2019			
119-A/HLN-13	Airframe/High-Lift Noise XIII		Theater Hall
Chaired by: L. SANDERS, ONERA and T. GEYER, Brandenburgische Technische Universität Cottbus - Senftenberg			
0830 hrs AIAA-2019-2695 <b>Reduction of vortex shedding noise from finite, wall-mounted, circular cylinders using porous material</b> T. Geyer, N. Al-Shuga, Technical University of Brandenburg, Cottbus, Germany	0900 hrs AIAA-2019-2696 <b>Prediction of Noise Mitigation by Porous Media based on a Direct-Hybrid CFD/CAA Method</b> S. Satcunanathan, M. Meinke, W. Schroeder, RWTH Aachen University, Aachen, Germany	0930 hrs AIAA-2019-2697 <b>Adjoint-based Broadband Noise Minimization using Stochastic Noise Generation</b> B. Zhou, N. Gauger, Technical University of Kaiserslautern, Kaiserslautern, Germany; H. Yao, S. Peng, L. Davidson, Chalmers University of Technology, Göteborg, Sweden	

Thursday, 23 May 2019			
120-ATT-6	Advanced Testing Techniques VI		Frans van Hasselt Room
Chaired by: P. JOSEPH, ISVR/University of Southampton and J. FISCHER, University of New South Wales			
0830 hrs AIAA-2019-2698 <b>A Method of Wall Interference Correction for Kevlar Wall Test Section</b> H. Ura, M. Shigemitsu, T. Hirokuni, Japan Aerospace Exploration Agency (JAXA), Mitaka, Japan; T. Homma, IHI Corporation, Mitaka, Japan	0900 hrs AIAA-2019-2699 <b>An improved phased array method for estimating free-field engine core noise spectra from measurements on short cowl engines</b> B. Tester, C. Ekaule, E. Quaranta, University of Southampton, Southampton, United Kingdom	0930 hrs AIAA-2019-2700 <b>An experimental and numeric investigation towards a reliable acoustic pressure level estimate using phased-array techniques</b> C. Pagani, São Paulo State University (UNESP), São José dos Campos, Brazil; L. Caldas, M. Medeiros, University of São Paulo, São Carlos, Brazil	

Thursday, 23 May 2019			
121-DA-13	Duct Acoustics XIII		Lecture Room D
Chaired by: C. TAM, Florida State University and R. SUGIMOTO, University of Southampton			
0830 hrs AIAA-2019-2701 <b>An Experimental Study on the Coherence and Modal Structure of the Broadband Sound Field in Fan Inlet Duct</b> W. Qiao, L. Wang, K. Xu, H. Tong, L. Mao, Northwestern Polytechnical University, Xi'an, China	0900 hrs AIAA-2019-2702 <b>A mode-matching model for the impedance of perforated plate liners</b> R. Billard, University of Le Mans, Le Mans, France; G. Tissot, National Institute for Research in Computer Science and Control (INRIA), Rennes, France; G. Gabard, University of Le Mans, Le Mans, France; M. Versaavel, Safran Group, Le Havre, France; J. Groby, University of Le Mans, Le Mans, France	0930 hrs AIAA-2019-2703 <b>Hydrodynamic instability and sound amplification over a perforated plate backed by a cavity</b> X. Dai, Shanghai Jiao Tong University, Shanghai, China; Y. Auregan, National Center for Scientific Research (CNRS), Le Mans, France	

Thursday, 23 May 2019			
122-IN/SA-1	Interior Noise/Structural Acoustics I		Blue Room
Chaired by: F. GROSVELD, Northrop Grumman Advanced Defense Services ret. and Y. FANG, Hong Kong University of Science and Technology			
0830 hrs AIAA-2019-2704 <b>The effect of uniform mean flow on sound pressure field of metasurface</b> J. Zhou, Y. Fang, X. Zhang, Hong Kong University of Science and Technology, Hong Kong, Hong Kong; D. Sui, X. Huang, Peking University, Beijing, China	0900 hrs AIAA-2019-2705 <b>Low frequency acoustic properties of a metamaterial-based aircraft trim panel</b> Y. Song, S. Chen, K. Zuo, China Aerodynamics Research and Development Center (CARD), Mianyang, China	0930 hrs AIAA-2019-2706 <b>Inverted wedge porous acoustic metamaterials</b> G. Ji, X. Zhang, Y. Fang, J. Zhou, Hong Kong University of Science and Technology, Hong Kong, Hong Kong	

Thursday, 23 May 2019			
123-JA-13	Jet Aeroacoustics XIII		Committee Room 3
Chaired by: U. MICHEL and K. AHUJA, Georgia Institute of Technology			
0830 hrs AIAA-2019-2707 <b>Temperature effects on the generation of steepened waves by supersonic temporal round jets</b> P. Pineau, C. Bogey, University of Lyon, Lyon, France	0900 hrs AIAA-2019-2708 <b>Statistical Flow Structures in Heated Supersonic Jets with Offset Temperature Non-Uniformities</b> D. Mayo, K. Daniel, K. Lowe, W. Ng, Virginia Polytechnic Institute and State University, Blacksburg, VA	0930 hrs AIAA-2019-2709 <b>Supersonic Jet Noise of Low Aspect-Ratio Rectangular C-D Nozzles with Contoured and Straight Interior Walls</b> K. Ahuja, R. Funk, D. Dickey, N. Breen, M. Mayo, M. Lorenzo, Georgia Institute of Technology, Atlanta, GA; et al.	

Thursday, 23 May 2019			
124-JA-15	Jet Aeroacoustics XV		Senate Hall
Chaired by: C. BROWN, NASA Glenn and S. LEE, University of California, Davis			
0830 hrs AIAA-2019-2710 <b>Wall pressure fluctuations induced by a compressible coaxial jet in installed configuration</b> S. Meloni, Roma Tre University, Rome, Italy; M. Mancinelli, National Center for Scientific Research (CNRS), Poitiers, France; R. Camussi, Roma Tre University, Rome, Italy; J. Huber, Airbus, Toulouse, France	0900 hrs AIAA-2019-2711 <b>Parametric characterization of wall pressure fluctuations induced by a compressible jet flow interacting with a flat plate</b> S. Meloni, A. Di Marco, R. Camussi, Roma Tre University, Rome, Italy; M. Mancinelli, National Center for Scientific Research (CNRS), Poitiers, France	0930 hrs AIAA-2019-2712 <b>Improved trailing edge noise prediction using CFD data within a generalized Rapid-distortion theory approach</b> M. Afsar, University of Strathclyde, Glasgow, United Kingdom	

Thursday, 23 May 2019			
125-TCN-10	Turbomachinery and Core Noise X		Orange Room
Chaired by: H. ATASSI, University of Notre Dame and A. WILSON			
0830 hrs AIAA-2019-2713 <b>Development and assessment of an inflow control device and a bell-mouth for a low-speed aeroacoustic fan rig</b> L. Caldas, S. Oertwig, A. Rudolphi, R. Meyer, L. Enghardt, U. Tapken, German Aerospace Center (DLR), Berlin, Germany	0900 hrs AIAA-2019-2714 <b>Fan Broadband Noise Computation at Transonic Regime</b> P. Kholodov, C. Pérez Arroyo, M. Sanjosé, S. Moreau, University of Sherbrooke, Sherbrooke, Canada		

Thursday, 23 May 2019			
126-A/FDI-15	Acoustic/Fluid Dynamics Interactions XV		Rhythm
Chaired by: D. JUVE, Ecole Centrale de Lyon and S. MANCINI, Airbus			
1030 hrs AIAA-2019-2715 <b>Experimental Investigation on the Aeroacoustics of Circular Cylinders Covered with Metal Foam</b> F. Liu, H. Guo, T. Hu, P. Liu, Beihang University, Beijing, China	1100 hrs AIAA-2019-2716 <b>Optical Measurements of the Linear Sound-Flow Interaction above a Corrugated Plate</b> M. D'Elia, T. Humbert, Y. Auregan, University of Le Mans, Le Mans, France; J. Gollard, Le Mans Technology Transfer Center, Le Mans, France		

Thursday, 23 May 2019			
127-ATT-7	Advanced Testing Techniques VII		Frans van Hasselt Room
Chaired by: P. JOSEPH, ISVR/University of Southampton and J. FISCHER, University of New South Wales			
1030 hrs AIAA-2019-2717 <b>A study of shear-layer corrections and a tensioned fabric wall for the localization of sound sources in wind tunnel</b> J. Zhang, X. Wang, J. Zhang, China Aerodynamics Research and Development Center (CARDC), Mianyang, China; C. Doolan, J. Fischer, D. Moreau, University of New South Wales, Sydney, Australia	1100 hrs AIAA-2019-2718 <b>A modified eigenvalue background noise removal method applied on several numerical and experimental test cases</b> J. Fischer, C. Doolan, University of New South Wales, Sydney, Australia	1130 hrs AIAA-2019-2719 <b>Analysis of the influence of inflow distortions on turbofan rotor noise</b> L. Grizewski, M. Behn, German Aerospace Center (DLR), Berlin, Germany; S. Funke, Rolls-Royce Deutschland, Dahlewitz, Germany; H. Siller, German Aerospace Center (DLR), Berlin, Germany	

Thursday, 23 May 2019			
128-CAA-13	Computational Aeroacoustics XIII		Theater Hall
Chaired by: E. BRAMBLEY, University of Warwick and U. IEMMA, University of Rome III			
1030 hrs AIAA-2019-2720 <b>Resolvent analysis-based pressure modeling for trailing edge noise prediction</b> G. Wagner, M. Deuse, S. Illingworth, R. Sandberg, University of Melbourne, Melbourne, Australia	1100 hrs AIAA-2019-2721 <b>Airfoil Noise Numerical Simulations with Direct Noise Computation and Hybrid Methods Using Inflow Synthetic Turbulence</b> T. Rigall, B. Cotté, IMSIA - ENSTA ParisTech, Palaiseau, France; P. Lafon, IMSIA - EDF R&D, Palaiseau, France	1130 hrs AIAA-2019-2722 <b>Characterization of the pressure fluctuations within a Controlled-Diffusion airfoil boundary layer at large Reynolds numbers</b> R. Boukharfane, J. Bodart, M. Jacob, L. Joly, T. Bridel-Bertomeu, Higher Institute of Aeronautics and Space (ISAE-SUPAERO), Toulouse, France; T. Nade-Langlois, Airbus, Toulouse, France	
Thursday, 23 May 2019			
129-DA-14	Duct Acoustics XIV		Lecture Room D
Chaired by: C. TAM, Florida State University and R. SUGIMOTO, University of Southampton			
1030 hrs AIAA-2019-2723 <b>Semi-empirical impedance model of perforated plate under grazing flow</b> Y. Meng, B. Xin, X. Jing, X. Sun, Beihang University, Beijing, China; H. Boden, M. Åbom, Royal Institute of Technology (KTH), Stockholm, Sweden	1100 hrs AIAA-2019-2724 <b>Inlet liner design for a fan noise test rig</b> A. Spillere, D. Braga, L. Seki, L. Bonomo, J. Cordiali, Federal University of Santa Catarina, Florianópolis, Brazil; B. Martinez, University of São Paulo, São Carlos, Brazil; et al.	1130 hrs AIAA-2019-2725 <b>Simulation of high acoustic excitation level harmonic interaction effects for perforates and liners</b> H. Boden, Royal Institute of Technology (KTH), Stockholm, Sweden	
Thursday, 23 May 2019			
130-IN/SA-2	Interior Noise/Structural Acoustics II		Blue Room
Chaired by: F. GROSVELD, Northrop Grumman Advanced Defense Services ret. and R. LENEVEU, VIBRATEC			
1030 hrs AIAA-2019-2726 <b>Study of the Sound Field Structure in the Cockpit of a Superjet 100</b> V. Lavrov, P. Moshkov, V. Popov, V. Rubanovskiy, Joint-Stock Company Sukhoi Civil Aircraft, Moscow, Russia	1100 hrs AIAA-2019-2727 <b>Application of SNGR Method to Compute Aero-Vibro-Acoustics of Heavy-Duty Rear-View Mirrors</b> B. Mazeaud, Volvo Group Trucks Technology, Saint-Priest, France; Z. Chronéer, Volvo Group Trucks Technology, Göteborg, Sweden; M. Karlsson, Escenda Engineering AB, Göteborg, Sweden; H. Yao, Chalmers University of Technology, Göteborg, Sweden; B. Petit, Y. Detandt, Free Field Technologies, Mont-Saint-Guibert, Belgium	1130 hrs AIAA-2019-2728 <b>Simulation of wall pressure fluctuations on Airbus-A320 fuselage in cruise flight condition</b> N. Hu, C. Appel, S. Haxter, German Aerospace Center (DLR), Braunschweig, Germany; S. Callsen, A. Klages, Airbus, Hamburg, Germany	
Thursday, 23 May 2019			
131-JA-14	Jet Aeroacoustics XIV		Committee Room 3
Chaired by: U. MICHEL and K. AHUJA, Georgia Institute of Technology			
1030 hrs AIAA-2019-2729 <b>Passive Nozzle-Based Technology for the Reduction of Heated Supersonic Jet Noise</b> N. Murray, University of Mississippi, University, MS; W. Baars, University of Melbourne, Parkville, Australia	1100 hrs AIAA-2019-2730 <b>Investigating the effects of temperature non-uniformity on supersonic jet noise with large-eddy simulation</b> G. Brès, Cascade Technologies, Inc., Palo Alto, CA; A. Towne, University of Michigan, Ann Arbor, MI; S. Lele, Stanford University, Stanford, CA	1130 hrs AIAA-2019-2731 <b>Modeling supersonic heated jet noise at fixed jet Mach number using an asymptotic approach for the acoustic analogy Green's function and an optimized turbulence model</b> M. Afsar, University of Strathclyde, Glasgow, United Kingdom; A. Sescu, Mississippi State University, Starkville, MS; E. Minisci, University of Strathclyde, Glasgow, United Kingdom	

<b>Thursday, 23 May 2019</b>			
<b>132-JA-16</b>	<b>Jet Aeroacoustics XVI</b>		<b>Senate Hall</b>
Chaired by: C. BROWN, NASA Glenn and S. LEE, University of California, Davis			
1030 hrs AIAA-2019-2732 <b>Rapid Prediction of Installed Jet Noise From RANS</b> J. Bridges, NASA Glenn Research Center, Cleveland, OH	1100 hrs AIAA-2019-2733 <b>Cone-of-Silence Predictions Using RANS-Based Jet Noise Prediction Method</b> B. Venkatesh, University of Southampton, Southampton, United Kingdom		
<b>Thursday, 23 May 2019</b>			
<b>133-TCN-11</b>	<b>Turbomachinery and Core Noise XI</b>		<b>Orange Room</b>
Chaired by: H. ATASSI, University of Notre Dame and A. WILSON			
1030 hrs AIAA-2019-2734 <b>Numerical Study on Noise Reduction of the Turbomachinery Blade Self-noise with Serrated Trailing Edge</b> S. Ding, L. Zhang, L. Mao, H. Tong, L. Ji, W. Qiao, Northwestern Polytechnical University, Xi'an, China	1100 hrs AIAA-2019-2735 <b>Experimental investigation of the sound emission of skewed axial fans with leading-edge serrations</b> F. Krömer, F. Czwielong, S. Becker, University of Erlangen-Nürnberg, Erlangen, Germany	1130 hrs AIAA-2019-2736 <b>Wave response functions for a cascade of blades with an arbitrary camber</b> Y. Mao, A. Wilson, P. Joseph, C. Paruchuri, A. Parry, University of Southampton, Southampton, United Kingdom; P. Carugno, Rolls-Royce Group plc, Derby, United Kingdom	
<b>Thursday, 23 May 2019</b>			
<b>134-LUNCH-4</b> <b>1200 - 1300 hrs</b>	<b>Thursday Lunch</b>		<b>Foyer - Aula Conference Centre</b>
<b>Thursday, 23 May 2019</b>			
<b>135-PLNRY-4</b> <b>1300 - 1400 hrs</b>	<b>Thursday Afternoon Plenary - Keynote Address and Student Award Ceremony</b>		<b>Auditorium</b>
From Fundamental Validation to Predictive Aeroacoustics: The Joy and Hurdles of PowerFLOW Journey <b>Damiano Casalino</b> TU Delft / Dassault Systèmes			
<b>Thursday, 23 May 2019</b>			
<b>136-A/FDI-16</b>	<b>Acoustic/Fluid Dynamics Interactions XVI</b>		<b>Rhythm</b>
Chaired by: S. MOREAU and R. LEUNG			
1400 hrs AIAA-2019-2737 <b>Flame/Flow Dynamics in a Multi-nozzle Gas Turbine Model Combustor Under Thermo-acoustically Unstable Condition</b> F. Chen, C. Ruan, T. Yu, W. Cai, X. Lu, Shanghai Jiao Tong University, Shanghai, China	1430 hrs AIAA-2019-2738 <b>Numerical prediction of thermoacoustic instabilities in a three-dimensional swirled combustor</b> W. Na, S. Boij, Royal Institute of Technology (KTH), Stockholm, Sweden	1500 hrs AIAA-2019-2739 <b>Aerodynamic noise of large-scale vortex ring produced by explosion in cylindrical chamber</b> V. Kopiev, M. Zaytsev, TsAGI, Moscow, Russia; V. Nikulin, D. Akhmetov, Russian Academy of Sciences, Novosibirsk, Russia	

Thursday, 23 May 2019				
<b>137-A/HLN-14</b>		<b>Airframe/High-Lift Noise XIV</b>		<b>Orange Room</b>
Chaired by: W. SCHROEDER, RWTH AACHEN UNIVERSITY, Institute of Aerodynamics and V. GOLUBEV, Embry-Riddle Aeronautical University (ERAU)				
1400 hrs AIAA-2019-2740 <b>Flow-induced Sound of Wall-Mounted Finite Square Cylinder with the Change of Angles of Attack</b> P. Liu, F. Liu, H. Guo, T. Hu, Beihang University, Beijing, China	1430 hrs AIAA-2019-2741 <b>Airfoil-Turbulence Interaction Noise Source Identification and its Reduction by Means of Leading Edge Serrations</b> G. Bampanis, M. Roger, École Centrale de Lyon, Lyon, France; D. Ragni, F. Avallone, C. Teruna, Delft University of Technology, Delft, The Netherlands	1500 hrs AIAA-2019-2742 <b>Experimental study of the unsteady aerodynamic loading for a tandem cylinder configuration</b> R. Maryami, University of Yazd, Yazd, Iran; S. Showkat Ali, University of Malaysia, Perlis, Malaysia; M. Azarpeyvand, University of Bristol, Bristol, United Kingdom; A. Dehghan, A. Afshari, University of Yazd, Yazd, Iran		
Thursday, 23 May 2019				
<b>138-ATT-8</b>		<b>Advanced Testing Techniques VIII</b>		<b>Frans van Hasselt Room</b>
Chaired by: J. GOLLIARD, CTTM and R. DOUGHERTY, OptiNav Inc				
1400 hrs AIAA-2019-2743 <b>Advancements in the source localization method SODIX and application to short cowl engine data</b> S. Oertwig, H. Siller, German Aerospace Center (DLR), Berlin, Germany; S. Funke, Rolls-Royce Deutschland, Dahlewitz, Germany	1430 hrs AIAA-2019-2744 <b>Comparison of microphone array denoising techniques and application to flight test measurements</b> A. Dinsenymer, University of Lyon, Lyon, France; Q. Leclere, J. Antoni, National Institute of Applied Sciences (INSA), Lyon, France; E. Julliard, Airbus, Toulouse, France	1500 hrs AIAA-2019-2745 <b>Determining Spectra of Aeroacoustic Sources from Microphone Array Data</b> R. Dougherty, OptiNav, Inc., Bellevue, WA		
Thursday, 23 May 2019				
<b>139-CAA-14</b>		<b>Computational Aeroacoustics XIV</b>		<b>Theater Hall</b>
Chaired by: E. BRAMBLEY, University of Warwick and U. IEMMA, University of Rome III				
1400 hrs AIAA-2019-2746 <b>Radial Basis Functions for Stochastic Metamodels Tailored to Aeroacoustic Applications</b> U. Iemma, L. Burghignoli, M. Rossetti, Roma Tre University, Rome, Italy	1430 hrs AIAA-2019-2747 <b>A Non-reflective Boundary Condition for Prediction of Acoustic Tones in Turbomachinery using Computational Fluid Dynamics</b> K. Zaabar, A. Wilson, University of Southampton, Southampton, United Kingdom			
Thursday, 23 May 2019				
<b>140-DA-15</b>		<b>Duct Acoustics XV</b>		<b>Lecture Room D</b>
Chaired by: C. TINNEY, Applied Research Laboratories and D. NARK, NASA Langley Research Center				
1400 hrs AIAA-2019-2748 <b>Sound Absorption Characteristics of Porous Metal with Structure Configuration Variation</b> J. Tuasikal, H. Daiguji, University of Tokyo, Tokyo, Japan; T. Ishii, Japan Aerospace Exploration Agency (JAXA), Tokyo, Japan	1430 hrs AIAA-2019-2749 <b>Initial Developments of a Low-Drag, Variable-Depth Acoustic Liner</b> N. Schiller, M. Jones, B. Howerton, D. Nark, NASA Langley Research Center, Hampton, VA			
Thursday, 23 May 2019				
<b>141-IN/SA-3</b>		<b>Interior Noise/Structural Acoustics III</b>		<b>Blue Room</b>
Chaired by: F. GROSVELD, Northrop Grumman Advanced Defense Services ret. and R. LENEVEU, VIBRATEC				
1400 hrs AIAA-2019-2750 <b>Simulation of Acoustically Induced Fluid-Structural Interactions Using Wall Model LES</b> P. Cavallo, B. Muralidharan, N. Sinha, Combustion Research and Flow Technology, Inc., Pipersville, PA	1430 hrs AIAA-2019-2751 <b>Validation with experimental data of an heterogeneous turbulent wall pressure fluctuation model in a FEM structural context</b> R. Leneveu, M. Rissman, A. Pinar, Vibratrec, Lyon, France			

<b>Thursday, 23 May 2019</b>			
<b>142-JA-17</b>	<b>Jet Aeroacoustics XVII</b>		<b>Committee Room 3</b>
Chaired by: M. DOTY, NASA - Langley Research Center and J. TROYES, ONERA			
1400 hrs AIAA-2019-2752 <b>Coupled CFD-CAA Simulation of the Noise Generated by a Hot Supersonic Jet Impinging on a Flat Plate with Exhaust Hole</b> J. Troyes, F. Vuillot, A. Langenais, ONERA, Toulouse, France; H. Lamberé, French Space Agency (CNES), Paris, France	1430 hrs AIAA-2019-2753 <b>Nozzle Pressure Ratio Effects on Aerodynamics and Acoustics of a Highly-Heated Rectangular Supersonic Jet</b> S. Chen, M. Mihaescu, Royal Institute of Technology (KTH), Stockholm, Sweden	1500 hrs AIAA-2019-2754 <b>Mach wave suppression by a pair of subsonic helical modes in a supersonic jet</b> D. Watanabe, University of Toyama, Toyama, Japan; H. Maekawa, University of Electro-Communications, Chofu, Japan	
<b>Thursday, 23 May 2019</b>			
<b>143-JA-19</b>	<b>Jet Aeroacoustics XIX</b>		<b>Senate Hall</b>
Chaired by: T. KOZUBSKAYA, Keldysh Institute of Applied Mathematics and B. HENDERSON, NASA Glenn Research Center			
1400 hrs AIAA-2019-2755 <b>Prediction of Fine-scale Jet Mixing Noise Using Geometrical Acoustics</b> Y. Martelet, J. Suratteau, G. Pont, Airbus, Toulouse, France; C. Bailly, University of Lyon, Lyon, France	1430 hrs AIAA-2019-2756 <b>Shooting Method for Linear Bi-Global Stability Analysis of Non-Axisymmetric Jets</b> N. Sohoni, A. Sinha, Indian Institute of Technology Bombay, Mumbai, India	1500 hrs AIAA-2019-2757 <b>A Semi-empirical Prediction Method for the Fine Scale Turbulence Mixing Noise</b> B. Bai, Tsinghua University, Beijing, China; X. Li, Beihang University, Beijing, China; H. Chen, Tsinghua University, Beijing, China	
<b>Thursday, 23 May 2019</b>			
<b>144-A/FDI-17</b>	<b>Acoustic/Fluid Dynamics Interactions XVII</b>		<b>Rhythm</b>
Chaired by: R. LEUNG			
1600 hrs AIAA-2019-2758 <b>Leveraging Surface Aeroacoustic-Structural Interaction for Airfoil Tonal Noise Reduction — A Parametric Study</b> I. Arif, G. Lam, R. Leung, D. Wu, Hong Kong Polytechnic University, Kowloon, Hong Kong	1630 hrs AIAA-2019-2759 <b>Circular Cylinder Wake and Noise Control Using DBD plasma Actuator</b> L. Al-Sadawi, University of Technology, Baghdad, Iraq; T. Chong, Brunel University London, Uxbridge, United Kingdom		
<b>Thursday, 23 May 2019</b>			
<b>145-A/HLN-15</b>	<b>Airframe/High-Lift Noise XV</b>		<b>Orange Room</b>
Chaired by: W. SCHROEDER, RWTH AACHEN UNIVERSITY, Institute of Aerodynamics and V. GOLUBEV, Embry-Riddle Aeronautical University (ERAU)			
1600 hrs AIAA-2019-2760 <b>Low-Order Aeroacoustic Prediction of Low-Speed Axial Fan Noise</b> A. Zari, J. Christophe, C. Schram, von Kármán Institute for Fluid Dynamics, Rhode-Saint-Genèse, Belgium	1630 hrs AIAA-2019-2761 <b>On Acoustic Signature of a Conceptual Airfoil Design with Leading-Edge Embedded Cross-Flow Fan</b> F. Colomb, Higher Institute of Aeronautics and Space (ISAE-SUPAERO), Toulouse, France; S. Karpuk, Zunum Aero, Bothell, WA; M. Kazarina, V. Golubev, R. Mankbadi, Embry-Riddle Aeronautical University, Daytona Beach, FL	1700 hrs AIAA-2019-2762 <b>Aerodynamic and Aeroacoustics Optimization Design of Multi-Element Airfoil by a Genetic Algorithm</b> B. Bai, Tsinghua University, Beijing, China; X. Li, Beihang University, Beijing, China; H. Chen, Tsinghua University, Beijing, China	
<b>Thursday, 23 May 2019</b>			
<b>146-DA-16</b>	<b>Duct Acoustics XVI</b>		<b>Lecture Room D</b>
Chaired by: C. TINNEY, Applied Research Laboratories and D. NARK, NASA Langley Research Center			
1600 hrs AIAA-2019-2763 <b>Flight Test Methodology for NASA Advanced Inlet Liner on 737MAX-7 Test Bed (Quiet Technology Demonstrator 3)</b> J. Wong, E. Nesbitt, The Boeing Company, Seattle, WA; M. Jones, D. Nark, NASA Langley Research Center, Hampton, VA	1630 hrs AIAA-2019-2764 <b>Design of an Advanced Inlet Liner for the Quiet Technology Demonstrator 3</b> D. Nark, M. Jones, NASA Langley Research Center, Hampton, VA	1700 hrs AIAA-2019-2765 <b>Acoustic Phased Array Quantification of Quiet Technology Demonstrator 3 Advanced Inlet Liner Noise Component</b> L. Brusniak, J. Wong, E. Nesbitt, The Boeing Company, Everett, WA; M. Jones, D. Nark, NASA Langley Research Center, Hampton, VA	

<b>Thursday, 23 May 2019</b>			
<b>147-JA-18</b>	<b>Jet Aeroacoustics XVIII</b>		<b>Committee Room 3</b>
Chaired by: M. DOTY, NASA - Langley Research Center and J. TROYES, ONERA			
1600 hrs AIAA-2019-2766 <b>Nozzle Configuration Effects on the Aeroacoustics of Dual Stream Supersonic Jets</b> S. Hromisin, D. McLaughlin, P. Morris, Pennsylvania State University, State College, PA	1630 hrs AIAA-2019-2767 <b>Experimental Investigation of Reynolds Number Effect on the Aeroacoustics Fields of a Supersonic Jet</b> Y. Ozawa, T. Nonomura, Tohoku University, Sendai, Japan; A. Oyama, Japan Aerospace Exploration Agency (JAXA), Sagamihara, Japan; M. Yamamoto, Tokyo University of Science, Katsushika, Japan		

<b>Thursday, 23 May 2019</b>			
<b>148-JA-20</b>	<b>Jet Aeroacoustics XX</b>		<b>Senate Hall</b>
Chaired by: T. KOZUBSKAYA, Keldysh Institute of Applied Mathematics and B. HENDERSON, NASA Glenn Research Center			
1600 hrs AIAA-2019-2768 <b>Jet Noise Prediction Comparisons with Scale Model Tests and Learjet Flyover Data</b> B. Henderson, D. Huff, J. Berton, NASA Glenn Research Center, Cleveland, OH	1630 hrs AIAA-2019-2769 <b>Dynamics of round jet impingement</b> V. Jaunet, M. Mancinelli, P. Jordan, National Center for Scientific Research (CNRS), Poitiers, France; A. Towne, University of Michigan, Ann Arbor, Ann Arbor, MI; D. Edgington-Mitchell, Monash University, Melbourne, Australia; G. Lehnasch, National Center for Scientific Research (CNRS), Poitiers, France; et al.	1700 hrs AIAA-2019-2770 <b>Numerical Investigation of Installed Jet Noise Sensitivity to Lift and Wing/Engine Positioning</b> M. Angelino, M. Moratilla-Vega, A. Howlett, H. Xia, G. Page, Loughborough University, Loughborough, United Kingdom	