

13th AIAA/CEAS Aeroacoustics Conference (28th AIAA Aeroacoustics Conference)

21 - 23 May 2007 Rome,

Monday Morning / 21 May 2007

Session 1-AA-1

Chaired by: A. LYRINTZIS, Purdue University, West Lafayette, IN

Computational Aeroacoustics I

Cinema

0900 AIAA-2007-3475 hp Discontinuous Galerkin Method for Computational Aeroacoustics C. Peyret, ONERA/DSNA, Chatillon, France	0930 AIAA-2007-3476 Wave- Based Discontinuous Galerkin Methods for the Linearized Euler Equations in the Frequency Domain G. Gabard, University of Southampton, Southampton, Great Britain	1000 AIAA-2007-3477 Space- Time Discontinuous Galerkin Method for Unsteady Compressible Navier-Stokes Equations. F. Lörcher, IAG University Stuttgart, Stuttgart, Germany	1030 AIAA-2007-3479 A Three- Dimensional Time- Domain Boundary Element Method for the Computation of Exact Green's Functions in Acoustic Analogy A. Jones, Old Dominion University, Norfolk, VA	1100 AIAA-2007-3481 Space- and Time- Optimized Schemes for Computational Aeroacoustics S. Pirozzoli, University of Rome 'La Sapienza', Rome, Italy	1130 AIAA-2007-3515 Accuracy of Lattice Boltzmann Method for Aeroacoustic Simulations S. Marié, Renault Research Department, Guyancourt, France	1200 AIAA-2007-3725 The Influence of Spatial Domain Truncation on the Prediction of Acoustic Far- Fields D. Obrist, ETH Zurich, Zurich, Switzerland	
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Monday Morning / 21 May 2007

Session 2-AA-2

Chaired by: B. TESTER, University of Southampton, Southampton, Great Britain

Duct Acoustics I

Corridoio

0900 AIAA-2007-3517 Demonstration of a CFD-CAA Methodology to Predict Buzz- Saw Noise Propagation to the Aircraft J. Coupland, Rolls-Royce, Derby, Great Britain	0930 AIAA-2007-3518 Ducted Propagation in the Presence of Vortical Flow Using an Eulerian-Lagrangian Description H. Beriot, Université de Technologie de Compiegne, Compiegne, France	1000 AIAA-2007-3519 Time- Domain Impedance Formulation Suited for Broadband Simulations Y. Reymen, K.U.Leuven, Leuven, Belgium	1030 AIAA-2007-3520 Comparison of Different Analysis Techniques to Decompose a Broadband Ducted Sound Field in its Mode Constituents L. Enghardt, DLR, German Aerospace Center, Berlin, Germany	1100 AIAA-2007-3521 A Frequency Domain Linearized Euler Solver for Turbomachinery Noise Propagation and Radiation Y. Oztoruk, Middle East Technical University, Ankara, Turkey	1130 AIAA-2007-3522 Efficient Modelling of Sound Propagation in Nonuniform Lined Intakes W. Bi, Laboratoire d'Acoustique de l'Université du Maine, Le Mans, France	1200 AIAA-2007-3523 Multiple Pure Tone Noise Prediction and Comparison with Static Engine Test Measurements F. Han, General Electric Global Research Center, Niskayuna, NY	
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Monday Morning / 21 May 2007

Session 3-AA-3

Chaired by: I. BORCHERS, European Aeronautic Defence and Space Company, , Germany

Interior Noise/Structural Acoustics I

Junior Suite 7

0900 AIAA-2007-3576 Prediction of Shock- Cell Noise in Airplane Aft- Cabins Using Statistical Energy Analysis E. Davis, The Boeing Company, Seattle, WA	0930 AIAA-2007-3572 Aircraft composite structures modeling and vibro- acoustic optimization analysis E. Monaco, Università degli Studi di Napoli , Napoli, Italy	1000 AIAA-2007-3573 Probabilistic Analysis and Optimization of the Acoustic Radiation of a Composite Panel T. Polito, University of Naples , Naples, Italy	1030 AIAA-2007-3574 High- order finite elements for interior acoustics L. Morino, Universita "Roma Tre", Roma, Italy	1100 AIAA-2007-3575 Comparison of Feedback and Feedforward Strategies for Active Structural- Acoustic Control of Broadband Sound Transmission Into a Cavity L. Dozio, Politecnico di Milano, Milano, Italy	1130 AIAA-2007-3577 Helicopter's Vibroacoustic Solutions Using Hybrid SEA Validated Model A. Perazzolo, AgustaWestland, Cascina Costa, Italy	1200 AIAA-2007-3578 Improved Energy Flow Ratio Method for Mid- High Frequency Vibro- Acoustic Problems: Structural Path Identification G. Diodati, Centro Italiano Ricerche Aerospaziali, Capua, Italy	
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Monday Morning / 21 May 2007

Session 4-AA-4

Chaired by: J. FITZPATRICK, Trinity College Dublin, Dublin, Ireland

Jet Aeroacoustics I

Capranica

0900 AIAA-2007-3592 Numerical and Asymptotic Lilley- Equation Solutions for the Goldstein Jet- Noise Source Model C. Morfey, ISVR, Southampton, Great Britain	0930 AIAA-2007-3591 Numerical Analysis of Sound Sources in High Reynolds Number Single Jets S. Koh, RWTH Aachen University, Aachen, Germany	1000 AIAA-2007-3587 Direct Computation of the Noise Generated by a Hot Coaxial Jet C. Bogey, Ecole Centrale de Lyon, Ecully, France	1030 AIAA-2007-3589 Computational Analyses of Offset Stream Nozzles for Noise Reduction V. Dippold, NASA Glenn Research Center, Cleveland, OH	1100 AIAA-2007-3590 Jet Flow Aeroacoustics at Re=14000: Comparison Between Experimental and Numerical Simulations Y. Detandt, Université Libre de Bruxelles, Brussels, Belgium	1130 AIAA-2007-3593 Theoretical and Numerical Discussion on Volume Integral Methods for Jet Noise Prediction G. Perez, Office National d'Études et de Recherches Aérospatiales, Chatillon, France	1200 AIAA-2007-3727 A RANS based Jet Noise Prediction Procedure S. Birch, The Boeing Company, Seattle, WA	
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Monday Morning / 21 May 2007

Session 5-AA-5

Chaired by: K. ZAMAN, NASA Glenn Research Center, Brookpark, OH

Jet Aeroacoustics II

Capranichetta

0900 AIAA-2007-3599 Spatial Stability Analysis of Chevron Jet Profiles K. Gudmundsson, California Institute of Technology, Pasadena, CA	0930 AIAA-2007-3595 Impact of Fluidic Chevrons on Supersonic Jet Noise B. Henderson, NASA Langley Research Center, Hampton, VA	1000 AIAA-2007-3596 Noise Generation in the Near- Nozzle Region of a Chevron Nozzle Jet Flow A. Uzun, Florida State University, Tallahassee, FL	1030 AIAA-2007-3597 Effects of Chevrons on Engine Jet Noise Structure E. Nesbitt, The Boeing Company, Seattle, WA	1100 AIAA-2007-3598 Significant Improvements on Jet Noise Reduction by Chevron- Microjet Combination M. Alkislar, The Boeing Company, Seattle, WA	1130 AIAA-2007-3600 Acoustic and Flow- Field Measurements of a Long Duct Chevron Mixer J. Wojno, General Electric Aviation, Evendale, OH	1200 AIAA-2007-3609 Flow and Acoustics Characteristics of Chevron Nozzles in Coaxial Jets - LES & Acoustic Analogy Investigation M. Mihaescu, University of Cincinnati, Cincinnati, OH	
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Monday Morning / 21 May 2007**Session 6-AA-6****Propeller, Rotorcraft and V/STOL Noise****Junior Suite 6**

Chaired by: H. BROUWER, National Aerospace Laboratory NLR, Amsterdam, The Netherlands

0900
AIAA-2007-3710
Analytic Formulation and Numerical Implementation of an Acoustic Pressure Gradient Prediction

S. Lee, The Pennsylvania State University, University Park, PA

0930
AIAA-2007-3709
Rotating Blade Self Noise: Experimental Validation of Analytical Models

Y. Rozenberg, Ecole Centrale de Lyon, Ecully, France

1000
AIAA-2007-3706
Diffraction Effects on the Trailing Edge Noise Measured in an Open-Jet Anechoic Wind Tunnel

S. Moreau, Valeo Thermal Systems, La Verriere, France

1030
AIAA-2007-3712
Helicopter Noise Prediction Using an Artificial Neural Network Tool

F. Cenedese, AgustaWestland, Cascina Costa, Italy

1100
AIAA-2007-3707
Synthesis of Helicopters Flyover Noise for Sound Quality Analysis

A. Vecchio, LMS, Leuven, Belgium

Monday Morning / 21 May 2007**Session 7-AA-7****Sonic Boom****Junior Suite 8**

Chaired by: A. PAONESSA, Alenia Aeronautica, Naples, Italy

0900
AIAA-2007-3675
Numerical comparison between a simplified method and a full CFD approach for sonic boom evaluation on supersonic innovative configurations

G. Scarselli, Dipartimento di Ingegneria Aerospaziale, Naples, Italy

0930
AIAA-2007-3677
Extension of PCBoom to Over-The-Top Booms, Ellipsoidal Earth, and Full 3-D Ray Tracing

K. Plotkin, Wyle Laboratories, Arlington, VA

1000
AIAA-2007-3674
Experimental and Computational Fluid Dynamics Around Supersonic Biplane for Sonic Boom Reduction

N. Kuratani, Tohoku University, Sendai, Japan

1030
AIAA-2007-3676
Nonlinear Propagation of Spark-Generated N-Waves in Relaxing Atmosphere: Laboratory-Scaled Experiments and Theoretical Study

M. Averiyannov, Moscow State University, Moscow, Russia

Monday Morning / 21 May 2007**Session 8-AA-8****Turbomachinery and Core Noise I****Picasso**

Chaired by: H. ATASSI, University of Notre Dame, Notre Dame, IN

0900
AIAA-2007-3679
Numerical Technique for Analyzing Rotating Rake Mode Measurements in a Duct with Passive Treatment and Shear Flow

M. Dahl, NASA Glenn Research Center, Cleveland, OH

0930
AIAA-2007-3680
Numerical Simulation of Counter-Rotating Fan Aeroacoustics

C. Polacsek, Office National d'Études et de Recherches Aérospatiales, Châtillon, France

1000
AIAA-2007-3681
Numerical Study on Fan Noise Generated by Rotor-Stator Interaction

J. Kazawa, Japan Aerospace Exploration Agency, Tokyo, Japan

1030
AIAA-2007-3683
Numerical Investigation of the Acoustic Behavior of a Multi-Perforated Liner

J. Eldredge, University of California, Los Angeles, Los Angeles, CA

1100
AIAA-2007-3713
Data Reduction Techniques for a Low Pressure Turbine Noise Test

A. Serrano, Industria de Turbopropulsores S.A., Madrid, Spain

Monday Afternoon / 21 May 2007
Session 9-AA-9

Chaired by: F. GERARD, Agency GFIC, Chatenay-Malabry, France

Acoustic/Fluid Dynamic Phenomena I
Junior Suite 6

1400 AIAA-2007-3405 Direct Numerical Simulations of Three-Dimensional Cavity Flows G. Brès, California Institute of Technology , Pasadena, CA	1430 AIAA-2007-3406 Numerical Investigation of Combustion Noise and Sound Source Mechanisms in a Non-Premixed Flame Using LES and APE- RF T. Bui, RWTH Aachen University, Aachen, Germany	1500 AIAA-2007-3401 Study on Self- sustained Oscillation Characteristics of Cavity Flameholders for Scramjet Application S. Ming-bo, National University of Defense Technology, Changsha, China (prc)	1530 AIAA-2007-3402 Simulation of Wave Scattering at an Orifice by Using a Navier-Stokes Solver G. Efraimsson, KTH, Stockholm, Sweden	1600 AIAA-2007-3403 Enhanced Hybrid LES/CAA Approach for Combustion- Induced Noise in Complex Geometries M. Kaltenbacher, University of Erlangen-Nuremberg, Erlangen, Germany	1630 AIAA-2007-3404 Numerical and Experimental Analysis of Sound Generated by an Orifice R. Arina, Politecnico di Torino, Torino, Italy	1700 AIAA-2007-3423 Tuned Passive Control of Combustion Instabilities Using Multiple Helmholtz Resonators D. Zhao, University of cambridge, Cambridge, Great Britain	1730 AIAA-2007-3407 Finite Volume Convective Flux Reconstruction Using High- Order Skew-Symmetric- Like Schemes G. Rubio, Katholieke Universiteit Leuven , Leuven, Belgium
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Monday Afternoon / 21 May 2007
Session 10-AA-10

Chaired by: Y. GUO, The Boeing Company, Huntington Beach, CA

Airframe/High-Lift Noise I
Junior Suite 7

1400 AIAA-2007-3449 Experimental Study of Surface Roughness Noise Y. Liu, University of Cambridge, Cambridge, Great Britain	1430 AIAA-2007-3450 Tandem Cylinder Noise Predictions D. Lockard, NASA Langley Research Center, Hampton, VA	1500 AIAA-2007-3454 Airfoil Noise and Unsteady Flow Measurements for the Validation of CFD/CAA Methods J. Bulté, Office National d'Études et de Recherches Aérospatiales, Châtillon, France	1530 AIAA-2007-3448 A Preliminary Study of Landing Gear Noise in Low- Speed Wind Tunnel H. Ura, Japan Aerospace Exploration Agency, Mitaka, Japan	1600 AIAA-2007-3453 Aeroacoustic Study of a 26%- Scale, High-Fidelity, Boeing 777 Main Landing Gear in a Semi- Anechoic- Wind-Tunnel Test Section M. Remillieux, Virginia Polytechnic Institute and State University, Blacksburg, VA	1630 AIAA-2007-3452 Numerical Investigation of Micro- Tab in Airframe Noise Reduction B. Kuo, University of California, Davis, Davis, CA	1700 AIAA-2007-3473 Designing of Slat Cove Filler as a Noise Reduction Device for Leading- edge Slat T. Imamura, Japan Aerospace Exploration Agency, Chofu, Japan	
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Monday Afternoon / 21 May 2007
Session 11-AA-11

Chaired by: J. DELFS, DLR, German Aerospace Center, Brunswick, Germany

Computational Aeroacoustics II
Cinema

1400 AIAA-2007-3487 Implementation of a High- Order Finite Difference Scheme to Model Wave Propagation A. Rona, University of Leicester, Leicester, Great Britain	1430 AIAA-2007-3485 Generation and Propagation of Sound Waves in Low Mach Number Flows A. Kiergaard, KTH - Royal Institute of Technology [Kungliga Tekniska Högskolan], Stockholm, Sweden	1500 AIAA-2007-3486 Computational Prediction of Noise Generation and Radiation from Antennas Using a Lattice Boltzmann Scheme S. Sentooran, Exa Corporation, Livonia, MI	1530 AIAA-2007-3488 Domain Decompositions for CAA in Complex Domains J. Utzmann, University of Stuttgart, Stuttgart, Germany	1600 AIAA-2007-3489 Computation of Sound Radiation from Cylindrical Ducts with Jets Using a High- Order Finite- Volume Method J. Kok, National Aerospace Laboratory NLR, Amsterdam, The Netherlands			
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Monday Afternoon / 21 May 2007
Session 12-AA-12

Chaired by: H. BODEN, MWL, Stockholm, Sweden

Duct Acoustics II
Corridoio

1400 AIAA-2007-3528 Curved Duct Noise Prediction Using the Fast Scattering Code A. Tinetti, NCI Information Systems, Inc, Hampton, VA	1430 AIAA-2007-3530 Acoustic Characterisation of Perforates ssing Non-linear System Identification Techniques H. Bodén, MWL, Aeronautical and Vehicle Engineering, KTH, Stockholm, Sweden	1500 AIAA-2007-3527 Aft Fan Noise Reduction with a Lined Afterbody B. Tester, ISVR, Southampton, Great Britain	1530 AIAA-2007-3524 Investigation of Sound Radiation from a Scarfed Intake by CAA-FWH Simulations Using Overset Grids N. Schoenwald, Berlin University of Technology, Berlin, Germany	1600 AIAA-2007-3525 Experimental Investigation of the Acoustic Damping of Perforated Liners with Bias Flow C. Heuwinkel, DLR, German Aerospace Center, Berlin, Germany	1630 AIAA-2007-3526 Inlet Acoustic Treatment for Interior Noise Control D. Burd, University of Missouri-Rolla, Rolla, MO	1700 AIAA-2007-3529 Attenuation of Ducted Axial Propulsors' Blade Tone Noise Using Adaptively Tunable Resonators L. Gorny, The Pennsylvania State University, University Park, PA	1730 AIAA-2007-3531 Optimization of Acoustic Pressure Measurements for Impedance Eduction M. Jones, NASA Langley Research Center, Hampton, VA
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Monday Afternoon / 21 May 2007
Session 13-AA-13

Chaired by: X. ZHANG, University of Southampton, Hampshire, Great Britain

General Acoustics I
Junior Suite 8

1400 AIAA-2007-3562 Working With the Wave Equation in Aeroacoustics- The Pleasures of Generalized Functions F. Farassat, NASA Langley Research Center, Hampton, VA	1430 AIAA-2007-3561 Variable Structure Model for Flow- Induced Tonal Noise Control with Plasma Actuators X. Huang, Southampton University, Southampton, Great Britain	1500 AIAA-2007-3556 Aerodynamic and Aeroacoustic Analysis of a HAWT in Yaw H. Dumitrescu, Institute of Mathematical Statistics and Applied Mathematics, Bucharest, Romania	1530 AIAA-2007-3558 Verification of Noise Prediction Through Acoustic Analogy G. Ghorbaniasl, Vrije Universiteit Brussel, Brussels, Belgium	1600 AIAA-2007-3559 Reduction of the Sonic Boom from a High-Speed Train Entering a Gallery J. Anthoine, von Karman Institute, Rhode-Saint-Genèse, Belgium	1630 AIAA-2007-3560 Characteristics of Noise from Aircraft Ground Operations M. Pott-Pollenske, Deutsches Zentrum für Luft- und Raumfahrt, Brunswick, Germany	1700 AIAA-2007-3563 An Acoustic Intensity-Based Inverse Method for Sound Propagation in Uniform Flows C. Yu, Michigan State University, East Lansing, MI	
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Monday Afternoon / 21 May 2007
Session 14-AA-14

Chaired by: G. RAMAN, Illinois Institute of Technology, Chicago, IL

Jet Aeroacoustics III
Capranica

1400 AIAA-2007-3606 Jet Noise in the 'Zone of Silence' M. Afzar, University of Cambridge, Cambridge, Great Britain	1430 AIAA-2007-3604 Impact of the source-correlation model in jet-noise prediction by acoustic analogy A. Bassetti, University of Southampton, Southampton, Great Britain	1500 AIAA-2007-3603 Identifying Aeroacoustic Sources W. George, Chalmers University of Technology, Gothenburg, Sweden	1530 AIAA-2007-3602 Identifying Noisy and Quiet Modes in a Jet P. Jordan, LEA, Poitiers, France	1600 AIAA-2007-3605 Analysis of Acoustic Source Mechanisms in Free Shear Flows F. Margnat, Laboratoire d'Etudes Aérodynamiques, Poitiers, France	1630 AIAA-2007-3601 Investigation of the Sources of Jet Noise K. Viswanathan, The Boeing Company, Seattle, WA	1700 AIAA-2007-3607 A 3-Dimensional Installation Effects Prediction Method for a Distributed Jet Source P. Mc Laughlin, University of Southampton, Southampton, Great Britain	1730 AIAA-2007-3608 A Comprehensive Study of Fluidic Injection Technology for Jet Noise Reduction B. Callender, General Electric Aviation, Cincinnati, OH
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Monday Afternoon / 21 May 2007
Session 15-AA-15

Chaired by: T. BHATIA, The Boeing Company, Seattle, WA

Jet Aeroacoustics IV
Capranichetta

1400
AIAA-2007-3613
Space- Time Correlation Measurements in Subsonic and Supersonic Jets Using Optical Deflectometry

B. Petitjean, The Pennsylvania State University, University Park, PA

1430
AIAA-2007-3615
Space- Time Correlations in Two Subsonic Jets Using Dual- PIV Measurements

V. Fleury , Office National d'Études et de Recherches Aérospatiales, Chatillon, France

1500
AIAA-2007-3665
Modelling the Frequency Dependence of Two- Point Turbulence Properties In Jet Flows

F. Kerhervé, Trinity College Dublin, Dublin, Ireland

1530
AIAA-2007-3611
How Chevrons Decrease Broadband Jet Noise in Cruise

E. Gutmark, University of Cincinnati, Cincinnati, OH

1600
AIAA-2007-3612
Phased Array Measurements of Full- Scale Engine Exhaust Noise

L. Brusniak, The Boeing Company, Seattle, WA

1630
AIAA-2007-3614
Nearfield- Farfield Correlations in Subsonic Jets: What Can They Tell Us?

E. Laurendeau, Sogeti High Tech, Toulouse, France

Monday Afternoon / 21 May 2007
Session 16-AA-16

Chaired by: D. CASALINO, Centro Italiano Ricerche Aerospaziali, Capua, Italy

Turbomachinery and Core Noise II
Picasso

1400
AIAA-2007-3714
Aero- Acoustics of Drag Generating Swirling Exhaust Flows

P. Shah, Massachusetts Institute of Technology, Cambridge, MA

1430
AIAA-2007-3684
Tip Leakage Experiment - Part One: Aerodynamic And Acoustic Measurements

J. Grilliat, Université Claude Bernard Lyon I, Ecully Cedex, France

1500
AIAA-2007-3685
Experimental Study of a Tip Leakage Flow - Part Two: Wavelet Analysis of Wall Pressure Fluctuations

R. Camussi, University Roma Tre, Rome, Italy

1530
AIAA-2007-3688
Experimental Validation of an Active Stator Technology Reducing Modern Turbofan Engine Noise

N. Genoulaz, Snecma, Moissy Cramayel, France

1600
AIAA-2007-3690
Parametric Study of Gust Scattering and Sound Transmission Through a Blade Row

H. Posson, Snecma, Moissy Cramayel, France

1630
AIAA-2007-3686
Experimental Study of the Trailing Edge Noise Generated by Axial Flow Fans

A. Bongiovi, University of Genova, Genova, Italy

Tuesday Morning / 22 May 2007
Session 17-AA-17

Chaired by: T. COLONIUS, California Institute of Technology, Pasadena, CA

Junior Suite 6
Acoustic/Fluid Dynamic Phenomena II

0900
AIAA-2007-3408
Pressure, Density and Temperature Fluctuations in Compressible Turbulent Flow - I

G. Gerolymos, Universite-Pierre-et-Marie-Curie (Paris VI), Paris, France

0930
AIAA-2007-3409
Acoustic waves in ducts with thin shear layers

B. Nilsson, Växjö University, Växjö, Sweden

1000
AIAA-2007-3410
Sound in flow ducts with sharp edges

S. Boij, Dept. of Aeronautical and Vehicle Engineering, Stockholm, Sweden

1030
AIAA-2007-3411
Wall Pressure Fluctuations Over a Forward- Facing Step

E. Fiorentini, Italian Institute For Naval Architecture Studies And Testing, Rome, Italy

1100
AIAA-2007-3413
Pressure Fluctuations on the Surface Surrounding Tall Protrusion into Flow

A. Andersson, The Boeing Company, Seattle, WA

1130
AIAA-2007-3414
Pressure Fluctuations in and around a Flow- Grazed Cavity at Transonic Velocities

B. Efimtsov, TsAGI, Moscow, Russia

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Tuesday Morning / 22 May 2007

Session 18-AA-18

Chaired by: K. AHUJA, Georgia Institute of Technology, Atlanta, GA

Advance Testing Techniques and Facilities I

Junior Suite 8

0900
AIAA-2007-3430
Impact of Geometry Changes on Noise Radiated by a Square Cylinder in Cross Flow
C. Hahn, University of Erlangen-Nuremberg, Erlangen, Germany

0930
AIAA-2007-3431
Towards more Accurate Beamforming Levels in Closed- Section Wind Tunnels via De-Reverberation
B. Fenech, University of Southampton, Southampton, Great Britain

1000
AIAA-2007-3432
Time- resolved PIV applied to cavity unsteady flows
C. Haigermoser, Politecnico di Torino, Torino, Italy

1030
AIAA-2007-3433
Aerodynamic duct mode generator
P. Böhning, Rolls-Royce Deutschland, Blankenfelde-Mahlow, Germany

1100
AIAA-2007-3434
Phased Array Measurements of Full-Scale Engine Inlet Noise
J. Lan, The Boeing Company, Seattle, WA

1130
AIAA-2007-3436
CLEAN Based on Spatial Source Coherence
P. Sijtsma, National Aerospace Laboratory, NLR, Emmeloord, The Netherlands

1200
AIAA-2007-3696
Feasibility of In- Duct Beamforming
P. Sijtsma, National Aerospace Laboratory, NLR, Emmeloord, The Netherlands

Tuesday Morning / 22 May 2007

Session 19-AA-19

Chaired by: A. RONA, University of Leicester, Leicester, Great Britain

Airframe/High-Lift Noise II

Junior Suite 7

0900
AIAA-2007-3455
Screening of Potential Noise Control Devices at Virginia Tech for QTD II Flight Test
P. Ravetta, Virginia Polytechnic Institute and State University, Blacksburg, VA

0930
AIAA-2007-3457
Airframe Noise Test Results from the QTD II Flight Test Program
R. Elkoby, The Boeing Company, Seattle, WA

1000
AIAA-2007-3458
Noise Spectra and Directivity for a Scale-Model Landing Gear
W. Humphreys, NASA Langley Research Center, Hampton, VA

1030
AIAA-2007-3459
ANOPP Landing Gear Noise Prediction Comparisons to Model-Scale Data
C. Burley, NASA Langley Research Center, Hampton, VA

1100
AIAA-2007-3460
Numerical simulation, experimental comparison with noise measurements and sound synthesis of airframe noise
G. Scarselli, University of Naples , Naples, Italy

1130
AIAA-2007-3466
QTD 2 (Quiet Technology Demonstrator 2) Main Landing Gear Noise Reduction Fairing Design and Analysis
A. Abeysinghe, Goodrich , Chula Vista, CA

1200
AIAA-2007-3472
Modelling of Landing Gear Noise with Installation Effects
M. Smith, ISVR, Southampton, Great Britain

Tuesday Morning / 22 May 2007

Session 20-AA-20

Chaired by: D. JUVE, Ecole Centrale de Lyon, Ecully, France

Computational Aeroacoustics III

Cinema

0900
AIAA-2007-3493
Time- Domain Simulation of Sound Absorption on Curved Wall
G. Delattre, Office National d'Études et de Recherches Aérospatiales, Chatillon, France

0930
AIAA-2007-3491
Outflow Valve Noise Analysis Using Two-Dimensional U- RANS CFD
E. Smid, The Boeing Company, Seattle, WA

1000
AIAA-2007-3494
Engine Liner Optimization Using the Fast Scattering Code
C. Reimann, North Carolina State University, Raleigh, NC

1030
AIAA-2007-3495
Anisotropy Correction of Two Dimensional Finite Difference Schemes for Computational Aeroacoustics
A. Sesu, University of Toledo, Toledo, OH

1100
AIAA-2007-3726
An Aerodynamic/Acoustic Splitting Technique for Hybrid CAA Applications
W. De Roeck, Katholieke Universiteit Leuven, Leuven, Belgium

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Tuesday Morning / 22 May 2007**Session 21-AA-21****Duct Acoustics III**

Corridorio

Chaired by: J. ASTLEY, University of Southampton, Southampton, Great Britain

0900 AIAA-2007-3532 Investigation of Liner Characteristics in the NASA Langley Curved Duct Test Rig C. Gerhold, NASA Langley Research Center, Hampton, VA	0930 AIAA-2007-3533 Comparison of Predicted and Measured Attenuation of Turbine Noise from a Static Engine Test E. Chien, Goodrich Aerostructures Group, Chula Vista, CA	1000 AIAA-2007-3534 Back- Calculation of Liner Impedance Using Duct Insertion Loss Measurements and FEM Predictions A. Scofano, AleniaAermacchi SpA, Venegono Superiore, Italy	1030 AIAA-2007-3535 Numerical Investigation of Geometry and Mean Flow Effects on Acoustic Radiation from a Duct Inlet C. Weckmueller, German Aerospace Center, Berlin, Germany	1100 AIAA-2007-3536 Effect of Mean Entropy on Eigenmodes in Annular Duct with Swirling Flow Y. Guan, Beijing University of Aeronautics and Astronautics, Beijing, China (prc)	1130 AIAA-2007-3537 Broadband Acoustic Liner Based on the Mechanism of Multiple Cavity Resonance X. Jing, Beijing University of Aeronautics and Astronautics, Beijing, China (prc)	1200 AIAA-2007-3538 Stability of Time Explicit Impedance Models C. Richter, Berlin University of Technology, Berlin, Germany	
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Tuesday Morning / 22 May 2007**Session 22-AA-22****Jet Aeroacoustics V**

Capranica

Chaired by: S. LELE, Stanford University, Stanford, CA

0900 AIAA-2007-3616 Identification of Sound Sources in Large- Eddy Simulations of Jets P. Spalart, The Boeing Company, Seattle, WA	0930 AIAA-2007-3620 Flow and Noise Predictions for a Mixer-Ejector Engine Configuration Using LES M. Burak, Chalmers University of Technology, Goteborg, Sweden	1000 AIAA-2007-3621 Computation of Jet Noise Using a Hybrid Approach J. Yan, TU-Berlin, Berlin, Germany	1030 AIAA-2007-3618 Influence of Inflow Forcing on Jet Flow and Jet Noise Predicted by LES F. Keiderling, Institute of Fluid Dynamics, ETH Zurich, Zurich, Switzerland	1100 AIAA-2007-3728 Jet Noise Assessment and Sensitivity at Aircraft Level J. Huber, Airbus France, Toulouse, France			
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Tuesday Morning / 22 May 2007**Session 23-AA-23****Jet Aeroacoustics VI**

Capranichetta

Chaired by: C. TAM, Florida State University, Tallahassee, FL

0900 AIAA-2007-3625 New Criteria for the Existence of Helical Instabilities in Subsonic Impinging Jets P. Panickar, Illinois Institute of Technology, Chicago, IL	0930 AIAA-2007-3624 Identification of Instability Waves in High- Speed Turbulent Jets J. Ryu, Stanford University, Stanford, CA	1000 AIAA-2007-3622 Noise Mitigation in High Speed and High Reynolds Number Jets Using Plasma Actuators M. Samimy, The Ohio State University, Columbus, OH	1030 AIAA-2007-3623 Supersonic Jet Noise Characteristics & Propagation: Engine and Model Scale R. Schlinker, United Technologies Research Center, East Hartford , CT	1100 AIAA-2007-3721 Prediction of Shock- Cell Structure and Noise in Dual Flow Nozzles Y. Abdelhamid, The Boeing Company, Seattle, WA			
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Tuesday Morning / 22 May 2007**Session 24-AA-24**

Chaired by: N. PEAKE, University of Cambridge, Cambridge, Great Britain

Picasso

0900 AIAA-2007-3691 Modelling Broadband Fan Noise and Comparison with Experiments H. Atassi, University of Notre Dame, Notre Dame, IN	0930 AIAA-2007-3693 Noise Source Identification for Ducted Fan Systems G. Bennett, Trinity College Dublin, Dublin, Ireland	1000 AIAA-2007-3692 A comparison between measured and predicted fan broadband noise due to rotor- stator interaction V. Jurdic, ISVR, Southampton, Great Britain	1030 AIAA-2007-3694 Experimental Investigation of the Fundamental Entropy Noise Mechanism in Aero- Engines F. Bake, DLR, German Aerospace Center, Berlin, Germany				
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Tuesday Afternoon / 22 May 2007**Session 25-AA-25****Acoustic/Fluid Dynamic Phenomena III****Junior Suite 6**

Chaired by: P. SIJTSMA, National Aerospace Laboratory NLR, Emmeloord, The Netherlands

1400 AIAA-2007-3419 Jet noise reduction by impinging microjets: an aerodynamic investigation testing microjet parameters T. Castelain, LMFA - ECL, Lyon, France	1430 AIAA-2007-3420 The acoustic resonance of rectangular and cylindrical cavities A. Rona, University of Leicester, Leicester, Great Britain	1500 AIAA-2007-3417 Rough Wall Boundary Layer Noise: Theoretical Predictions S. Glegg, Florida Atlantic University, Boca Raton, FL	1530 AIAA-2007-3418 Rough- Wall Boundary Layer Noise: An Experimental Investigation D. Grissom, Virginia Tech, Blacksburg, VA	1600 AIAA-2007-3421 On sound scattering by a Rankine vortex I. Belyaev, TsAGI, Moscow, Russia	1630 AIAA-2007-3415 Frequency Dependence on Core Dynamics in Multiple Vortex Interactions Z. Zheng, Kansas State University, Manhattan, KS	1700 AIAA-2007-3416 Aeroacoustics of transonic shock- boundary layer interactions S. Pirozzoli, University of Rome 'La Sapienza', Rome, Italy	1730 AIAA-2007-3422 Experimental Investigation of the Acoustic Characteristics of Shock- Vortex Ring Interaction Process T. Murugan, Indian Institute of Technology, Kanpur, India
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Tuesday Afternoon / 22 May 2007**Session 26-AA-26****Computational Aeroacoustics IV****Cinema**

Chaired by: C. BOGEY, Ecole Centrale de Lyon, Ecully, France

1400 AIAA-2007-3500 Numerical Study of 3D Acoustic Installation Effects Through a Hybrid Euler/BEM Method S. Redonnet, Office National d'Études et de Recherches Aérospatiales, Châtillon (Paris), France	1430 AIAA-2007-3501 Numerical Study of Acoustic Installation Effects Through a Chimera CAA Method S. Redonnet, Office National d'Études et de Recherches Aérospatiales, Châtillon (Paris), France	1500 AIAA-2007-3502 Three- Dimensional DNS of Sound Generated by Oblique Collision of Vortex Rings Y. Nakashima, Tohoku University, Sendai, Japan	1530 AIAA-2007-3497 Sound Scattered by Helicopter Fuselage in Descent Flight Conditions C. Testa, CIRA, Capua (CE), Italy	1600 AIAA-2007-3499 Flow and Dipole Source Evaluation of a Generic SUV J. Ask, Fluid Dynamic Center, Goteborg, Sweden	1630 AIAA-2007-3498 A Study of BVI Noises by the Finite Difference Lattice Boltzmann Method A. Tamura, Kobe University, Kobe, Japan		
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Tuesday Afternoon / 22 May 2007

Session 27-AA-27

Chaired by: J. YU, Goodrich Aerostructures, Chula Vista, CA

Duct Acoustics IV

Corridoio

1400 AIAA-2007-3543 Models for Acoustic Propagation Through Turbofan Exhaust Flows B. Veitch, University of Cambridge, Cambridge, Great Britain	1430 AIAA-2007-3546 Optimization of Annular and Cylindrical Liners for Mixed Exhaust Aeroengines T. Law, University of Cambridge, Cambridge, Great Britain	1500 AIAA-2007-3539 Investigation of a Parabolic Iterative Solver for Three-Dimensional Configurations D. Nark, NASA Langley Research Center, Hampton, VA	1530 AIAA-2007-3540 An Active Control Scheme for Tuning Acoustic Impedances J. Moeck, Technical University Berlin, Berlin, Germany	1600 AIAA-2007-3542 Time- domain In- situ Characterization of Acoustic Liners in a Flow Duct via Impulse Response K. Fung, The Hong Kong Polytechnic University, , Hong Kong	1630 AIAA-2007-3544 Predictions of the Inlet Splice Effects from the QTD2 Static Test J. Premo, The Boeing Company, Seattle, WA	1700 AIAA-2007-3545 Sound transmission in ducts with sheared mean flow C. Brooks, University of Southampton, Southampton, Great Britain	
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Tuesday Afternoon / 22 May 2007

Session 28-AA-28

Chaired by: P. JORDAN, Centre d'Etudes Aerodynamiques et Thermiques, Poitiers, France

General Acoustics II

Junior Suite 8

1400 AIAA-2007-3564 A 3D Parabolic Equation Method for Sound Propagation in Moving Inhomogeneous Media R. Cheng, The Pennsylvania State University, University Park, PA	1430 AIAA-2007-3565 Two- Dimensional Induct Vortex Leapfrogging as a Validation Benchmark for Internal Aeroacoustics C. Schram, LMS International, Leuven, Belgium	1500 AIAA-2007-3566 Computation of Flapping Wing Sound Y. Bae, Korea University, Seoul, South Korea	1530 AIAA-2007-3567 Direct Simulation of Cavitating Flow Noise J. Seo, Korea University, Seoul, South Korea	1600 AIAA-2007-3568 CFD Simulation of the Aeroacoustic Noise Generated by A Generic Side View Car Mirror T. Belamri, Ansys Canada Ltd, Waterloo, Canada	1630 AIAA-2007-3569 Efficient Implementation of Equivalent Sources from CFD Data in Curle's Analogy P. Martinez-Lera, Katholieke Universiteit Leuven, Leuven, Belgium	1700 AIAA-2007-3570 On 36 Forms at the Acoustic Wave Equation in Potential and Inhomogeneous Media L. Campos, Instituto Superior Técnico, Lisboa, Portugal	1730 AIAA-2007-3571 Sound Radiation of Laminated Composite Plates Partially Supported by Elastic Restraints W. Hao, National Chiao Tung University, Hsin Chu, Taiwan (roc)
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Tuesday Afternoon / 22 May 2007

Session 29-AA-29

Chaired by: M. JACOB, Ecole Centrale de Lyon, Ecully, France

Interior Noise/Structural Acoustics II

Junior Suite 7

1400 AIAA-2007-3584 Propeller Synchrophase Angle Optimisation Study D. Blunt, Defence Science and Technology Organisation, Melbourne, Australia	1430 AIAA-2007-3582 Noise Transmission Characteristics of Stiffened/Unstiffened Cylindrical Shells Subjected to Random Excitations at High Frequencies: Computational performances of an extended modal model J. Coyette, Free Field Technologies, Mont Saint-Guibert, Belgium	1500 AIAA-2007-3580 Interior Active Noise Control in Turbofan Aircraft: Optimal Actuators Positioning Using Dedicated Genetic Algorithms E. Monaco, Universita degli Studi di Napoli, Napoli, Italy	1530 AIAA-2007-3579 A Broadband Acoustic Feedback Control System on Confined Area on Board of Aircraft B. Tiseo, Centro Italiano Ricerche Aerospaziali, Capua (CE), Italy	1600 AIAA-2007-3581 Small Acoustic Research Facility (SMARF) for the Plate Qualification: Design, Assembly and Measurements T. Polito, University of Naples, Naples, Italy	1630 AIAA-2007-3583 Influence of Geometrical Parameters on Sound Transmission Through Door Gaps P. Gervais, Signal Développement, Poitiers, France	1700 AIAA-2007-3585 High Frequency Vibroacoustic Analyses on VEGA Launch Vehicle V. Ferrara, Avio Group s.p.a., Colleferro, Italy	1730 AIAA-2007-3586 Prediction of the Acoustic Levels During P80 FW Static Firing Test V. Ferrara, Avio Group s.p.a., Colleferro, Italy
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Tuesday Afternoon / 22 May 2007

Session 30-AA-30

Chaired by: R. SCHLINKER, United Technologies Research Center, East Hartford, CT

Jet Aeroacoustics VII

Capranica

1400 AIAA-2007-3628 Effect of Temperature on Jet Velocity Spectra J. Bridges, NASA Glenn Research Center, Cleveland, OH	1430 AIAA-2007-3634 A Comparative Study of Heated Single and Equivalent Twin Jets B. Greska, Florida State University, Tallahassee, FL	1500 AIAA-2007-3629 On the Noise of Cold or Hot Turbulent Jets L. Campos, Instituto Superior Técnico, Lisboa, Portugal	1530 AIAA-2007-3630 Reynolds Number and Temperature Effects on Jet Noise T. Bhat, The Boeing Company, Seattle, WA	1600 AIAA-2007-3631 Direct Numerical Simulation of Low Reynolds Number Hot and Cold Jets P. Moore, Delft University of Technology, Delft, The Netherlands	1630 AIAA-2007-3633 Transport of disturbance energy in hot and cold turbulent jets M. Talei, University of Melbourne, Melbourne, Australia	1700 AIAA-2007-3635 Simulation of Jet Noise from a Long- Cowl Nozzle with Serrations J. Yan, TU-Berlin, Berlin, Germany	
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Tuesday Afternoon / 22 May 2007

Session 31-AA-31

Chaired by: K. VISWANATHAN, The Boeing Company, Seattle, WA

Jet Aeroacoustics VIII

Capranichetta

1400 AIAA-2007-3641 The Sources of Jet Noise: Experimental Evidence C. Tam, Florida State University, Tallahassee, FL	1430 AIAA-2007-3642 An Acoustic- Analogy Model for Jet- Noise Prediction A. Bassetti, University of Southampton, Southampton, Great Britain	1500 AIAA-2007-3636 Noise Prediction of a Subsonic Turbulent Round Jet Using the Lattice- Boltzmann Method P. Lew, Purdue University, West Lafayette, IN	1530 AIAA-2007-3637 Prediction and Understanding of Three-Dimensional Screech Phenomenon from a Circular Nozzle X. Li, BeiHang University, Beijing, China (prc)	1600 AIAA-2007-3638 Noise Radiation Predictions from Jet Instability Waves Using a Hybrid Nonlinear PSE-Acoustic Analogy Approach L. Cheung, Stanford University, Stanford, CA	1630 AIAA-2007-3639 Noise Prediction of a Coaxial Jet Using Energy Transfer Rate Time- Scale R. Self, Institute of Sound and Vibration Research, Southampton, Great Britain	1700 AIAA-2007-3640 Noise Prediction in Hot Jets A. Khavaran, NASA Glenn Research Center, Cleveland, OH	
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Tuesday Afternoon / 22 May 2007

Session 32-AA-32

Low Noise Aircraft Design, Integration Effects and Flight Acoustics

Picasso

Chaired by: C. WHITFIELD, NASA Langley Research Center, Hampton, VA

1400 AIAA-2007-3666 Flaperon Modification Effect on Jet- Flap Interaction Noise Reduction for Chevron Nozzles V. Mengle, The Boeing Company, Seattle, WA	1430 AIAA-2007-3669 Technology Evaluator: a global way of assessing low noise technologies D. Cadot-Burillet, Airbus France, Toulouse, France	1500 AIAA-2007-3670 The Quiet Technology Demonstrator Program: Static Test of Airplane Noise- Reduction Concepts W. Herkes, The Boeing Company, Seattle, WA	1530 AIAA-2007-3671 The Quiet Technology Demonstrator Program: Static Test of an Acoustically Smooth Inlet B. Callender, General Electric Aviation, Cincinnati, OH	1600 AIAA-2007-3668 Robust Optimization of Aircraft Life- cycle Costs Including the Cost of Community Noise M. Diez, Universita degli Studi "Roma Tre", Rome, Italy	1630 AIAA-2007-3667 A Sound- Matching-Based Approach for Aircraft Noise Annoyance Alleviation Via MDO M. Diez, Universita degli Studi "Roma Tre", Rome, Italy	1700 AIAA-2007-3673 On Conical Wave Harmonics with Application to Sound Diffraction and Shielding L. Campos, Instituto Superior Técnico, Lisboa, Portugal	
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Wednesday Morning / 23 May 2007

Session 33-AA-33

Chaired by: S. GLEGG, Florida Atlantic University, Boca Raton, FL

Acoustic/Fluid Dynamic Phenomena IV

Junior Suite 6

0900 AIAA-2007-3429 Computation of Aeroacoustic Phenomena in Subsonic and Transonic Ducted Flows T. Emmert, LaMSID, CNRS-EDF, Clamart, France	0930 AIAA-2007-3400 On the Vorticity Generated Sound: A Transpiration-Velocity/Power-Spectral-Density Approach L. Morino, University Roma Tre, Roma, Italy	1000 AIAA-2007-3425 Numerical Assessment of Stability Criteria from Disturbance Energies in Gaseous Combustion A. Giauque, CERFACS, Toulouse, France	1030 AIAA-2007-3426 A Comparison of Open and Choked Exits of a Premixed Combustor During Thermoacoustic Limit Cycle P. Hield, University of Melbourne, Melbourne, Australia	1100 AIAA-2007-3427 Stability Analysis of Solid Rocket Motor Combustion by Computational Fluid Dynamics T. Shimada, Japan Aerospace Exploration Agency, Sagamihara, Japan	1130 AIAA-2007-3428 Thermoacoustic Instability in a Rijke Tube: Non-Normality and Nonlinearity K. Balasubramanian, Indian Institute of Technology Madras, Chennai, India	1200 AIAA-2007-3424 Optical Investigation of Thermo-Acoustic Instabilities in Turbulent Flames R. Bruschi, ENEA, S.M. Galeria, Italy	
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Wednesday Morning / 23 May 2007

Session 34-AA-34

Chaired by: R. DOUGHERTY, OptiNav, Inc., Bellevue, WA

Advance Testing Techniques and Facilities II

Junior Suite 8

0900 AIAA-2007-3443 Characterization of Short and Infinite-Line Pressure Probes for Induct Acoustic Measurements Under Hostile Environment M. Wegner, Georgia Institute of Technology, Atlanta, GA	0930 AIAA-2007-3441 Implementation of an In-Situ Impedance Techniques on a Full Scale Aero-Engine R. Gaeta, Georgia Institute of Technology, Atlanta, GA	1000 AIAA-2007-3442 In-Duct Acoustic Source Reconstruction from Pressure and Velocity-Based Measurements T. Bravo, Université de Technologie de Compiègne, Compiègne, France	1030 AIAA-2007-3437 Design of a Quiet Open Jet Facility for the Measurement of Airfoil Noise T. Chong, University of Southampton, Southampton, Great Britain	1100 AIAA-2007-3438 Shape memory alloy based morphing chevrons: full scale static engine test F. Calkins, The Boeing Company, Seattle, WA	1130 AIAA-2007-3439 In-Duct and Far-Field Mode Detection Techniques P. Sijtsma, National Aerospace Laboratory, NLR, Emmeloord, The Netherlands		
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Wednesday Morning / 23 May 2007

Session 35-AA-35

Chaired by: M. KHORRAMI, NASA Langley Research Center, Hampton, VA

Airframe/High-Lift Noise III

Junior Suite 7

0900 AIAA-2007-3463 Phased Array Measurements from Landing Gear Models A. Quayle, University of Cambridge, Cambridge, Great Britain	0930 AIAA-2007-3462 Perforated Fairings for Bluff Body Noise Control K. Boorsma, University of Southampton, Southampton, Great Britain	1000 AIAA-2007-3465 Noise Sources Control of an Aircraft Landing Gear Y. Li, University of Southampton, Southampton, Great Britain	1030 AIAA-2007-3466 Noise Control of Landing Gears Using Elastic Membrane-Based Fairings P. Ravetta, Virginia Polytechnic Institute and State University, Blacksburg, VA	1100 AIAA-2007-3468 Prediction of Incoming Turbulent Noise Using a Combined Numerical/Semi-Empirical Method and Experimental Validation J. Christophe, von Karman Institute for Fluid Dynamics, Rhode-Saint-Genèse, Belgium	1130 AIAA-2007-3447 Aeroacoustic Wind Tunnel Measurements on a 2D High-Lift Configuration A. Kolb, European Aeronautic Defence and Space Company, Munich, Germany	1200 AIAA-2007-3723 Noise Sources from a Cylindrical Cavity M. Grottadaurea, University of Leicester, Leicester, Great Britain	
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Wednesday Morning / 23 May 2007

Session 36-AA-36

Chaired by: C. BREARD, The Boeing Company, Seattle, WA

Computational Aeroacoustics V

Cinema

0900 AIAA-2007-3510 Paralleled DGM scheme for LEE applied to exhaust and bypass problems R. Leneveu, Free Field Technologies, Mont-St-Guibert, Belgium	0930 AIAA-2007-3504 Multi- Size- Mesh, Multi-Time- Step Algorithm for Noise Computation Around an Airfoil in Curvilinear Meshes T. Le Garrec, Sinumef Ensam, Paris, France	1000 AIAA-2007-3505 Experiments with Hermite Methods for Simulating Compressible Flows: Runge- Kutta Time-Stepping and Absorbing Layers T. Hagstrom, The University of New Mexico, Albuquerque, NM	1030 AIAA-2007-3506 RPM - the fast Random Particle- Mesh method to realize unsteady turbulent sound sources and velocity fields for CAA applications R. Ewert, DLR, Institute of Aerodynamics and Flow Technology, Braunschweig, Germany	1100 AIAA-2007-3507 Coupling of LES with LEE for Forward Facing Step Noise Prediction I. Ali, University of Erlangen-Nuremberg, Erlangen, Germany	1130 AIAA-2007-3509 Application of PML Absorbing Boundary Condition to Aeroacoustics Problems with an Oblique Mean Flow S. Parrish, Old Dominion University, Norfolk, VA	1200 AIAA-2007-3503 Numerical Modelling of Sound Diffraction at a Half Plane Trailing Edge M. Genito, Centro Italiano Ricerche Aerospaziali, Capua , Italy	
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Wednesday Morning / 23 May 2007

Session 37-AA-37

Chaired by: J. PREMO, The Boeing Company, Seattle, WA

Duct Acoustics V

Corridoio

0900 AIAA-2007-3549 Three- dimensional effects of geometries and acoustic treatments on bypass- duct noise R. Sugimoto, University of Southampton, Southampton, Great Britain	0930 AIAA-2007-3552 Sound in Curved Intakes E. Brambley, University of Cambridge, Cambridge, Great Britain	1000 AIAA-2007-3548 Influence of Aircraft Nacelle Acoustic Panel Drainage Slots on Duct Attenuation P. Murray, AleniaAermacchi, Venegono Superiore, Italy	1030 AIAA-2007-3550 On the Calculations of Modes in Circumferentially Nonuniform Lined Intakes W. Bi, Laboratoire d'Acoustique de l'Université du Maine, Le Mans, France	1100 AIAA-2007-3551 Acoustic modal damping due to localized loss behind a bluff- body S. Liljenberg, United Technologies Research Center, East Hartford, CT	1130 AIAA-2007-3553 The Virtual Scarf Inlet ,		
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Wednesday Morning / 23 May 2007

Session 38-AA-38

Chaired by: J. BRIDGES, NASA Glenn Research Center, Cleveland, OH

Jet Aeroacoustics IX

Capranica

0900 AIAA-2007-3643 Subsonic Jet Noise Reduction by Microjets with Various Injection Port Geometry K. Zaman, NASA Glenn Research Center, Brookpark, OH	0930 AIAA-2007-3646 Towards Noise Reduction of Coaxial Jets E. Groeschel, RWTH Aachen University, Aachen, Germany	1000 AIAA-2007-3647 Large Vortex Input in a Noise of Artificially Excited Subsonic Jet V. Kopiev, TsAGI, Moscow, Russia	1030 AIAA-2007-3648 Influence of Source Interference on the Directivity of Jet Mixing Noise U. Michel, DLR, German Aerospace Center, Berlin, Germany	1100 AIAA-2007-3649 Coupling mechanisms in a co- axial transonic jet. C. Tinney, University of Poitiers, Poitiers, France	1130 AIAA-2007-3645 Effective Jet Properties for the Estimation of Turbulent Mixing Noise Reduction by Water Injection M. Kandula, Sierra Lobo, Inc., Kennedy Space Center, FL		
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Wednesday Morning / 23 May 2007

Session 39-AA-39

Chaired by: C. MORFEY, University of Southampton, Southampton, Great Britain

Jet Aeroacoustics X

Capranichetta

0900 AIAA-2007-3652 Acoustic Near- to Far-field Characteristics of Nozzle Radiation Through Plug Flow Jets G. Gabard, University of Southampton, Southampton, Great Britain	0930 AIAA-2007-3653 Identification of Nonlinear and Near-Field Effects in Jet Noise Using Nonlinearity Indicators K. Gee, Brigham Young University, Provo, UT	1000 AIAA-2007-3655 Effect of Mean- Flow Evolution on Sound Propagation Through Non- Uniform Jet Flows S. Karabasov, University of Cambridge, Cambridge, Great Britain	1030 AIAA-2007-3651 Near- Field Noise Computation for a Subsonic Coannular Jet C. Loh, Taitech Inc., Cleveland , OH	1100 AIAA-2007-3654 Acoustical Nonlinearities in Aircraft Flyover Data S. McInerny, The University of Alabama, Tuscaloosa, AL	1130 AIAA-2007-3656 Investigation of an Axi-Symmetric Subsonic Turbulent Jet Using Computational Aeroacoustics Tools C. Silva, EMBRAER S.A., São José Dos Campos, Brazil		
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Wednesday Morning / 23 May 2007

Session 40-AA-40

Chaired by: M. ROGERS, Ecole Centrale de Lyon, Ecully, France

Turbomachinery and Core Noise IV

Picasso

0900 AIAA-2007-3700 Numerical Prediction of Exhaust Fan Tone Noise from High Bypass Aircraft Engines A. Sharma, General Electric Company, Niskayuna, NY	0930 AIAA-2007-3697 Combustion Noise in a Flameless Trapped-Vortex Reheat Burner (FTVRB) E. Gutmark, University of Cincinnati, Cincinnati, OH	1000 AIAA-2007-3698 Spatial Distribution of Combustion Noise Sources R. Rajaram, Georgia Institute of Technology, Atlanta, GA	1030 AIAA-2007-3716 Analysis and Control of Combustion Instabilities by Adaptive Reflection Coefficients N. Tran, Ecole Centrale Paris, Chatenay-Malabry, France				
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Wednesday Afternoon / 23 May 2007

Session -

Chaired by: F. MARULO, University of Naples "Federico II", Naples, Italy

General Acoustics III

Junior Suite 6

1400 AIAA-2007-3718 Asymptotic Behaviour of the Shearless Turbulence Mixing D. Tordella, Politecnico di Torino, Torino, Italy	1430 AIAA-2007-3719 Noise Generation by Porous Airfoils E. Sarradj, Institute of Traffic Research, Cottbus, Germany						
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Wednesday Afternoon / 23 May 2007

Session 41-AA-41

Chaired by: J. MENDOZA, Honeywell International, Inc., Phoenix, AZ

Advance Testing Techniques and Facilities III

Junior Suite 8

1400
AIAA-2007-3444
Development of a novel technique of pressure pulsation measurements in turbomachinery: fibre optic microphone

H. Konle, Berlin University of Technology, Berlin, Germany

1430
AIAA-2007-3445
Microphone Polar Arc Phased Array for Locating Turbofan Source Noise Components

M. Martinez, General Electric Aviation, Cincinnati, OH

1500
AIAA-2007-3722
Design of a MEMS Piezoresistive Microphone for Use in Aeroacoustic Measurements

B. Homeijer, University of Florida, Gainesville, FL

1530
AIAA-2007-3446
Acoustic Array Measurements in Aerodynamic Wind Tunnels : A Subspace Approach for Noise Suppression

J. Bulté, Office National d'Études et de Recherches Aérospatiales, Châtillon, France

Wednesday Afternoon / 23 May 2007

Session 42-AA-42

Chaired by: W. DOBRZINSKI, DLR, German Aerospace Center, , Germany

Airframe/High-Lift Noise IV

Junior Suite 7

1400
AIAA-2007-3469
Direct Numerical Simulations of Noise Generated by Airfoil Trailing Edges

R. Sandberg, University of Southampton, Southampton, Great Britain

1430
AIAA-2007-3470
Design Criteria for Low-Noise Trailing- Edges

M. Herr, DLR, German Aerospace Center, Braunschweig, Germany

1500
AIAA-2007-3471
Stability Calculations on the Shear Layer Past a Wing Tip

J. Brazier, Office National d'Études et de Recherches Aérospatiales, Toulouse, France

1530
AIAA-2007-3474
Study of a Deconvolution Algorithm for Aircraft Flyover Measurements

P. Boehning, Rolls-Royce Germany, Dahlewitz, Germany

Wednesday Afternoon / 23 May 2007

Session 43-AA-43

Chaired by: E. MANOHA, Office National d'Etudes et Recherches Aero spatiales, Chatillon, France

Computational Aeroacoustics VI

Cinema

1400
AIAA-2007-3511
Aeroacoustic Investigation of the Flow around Cylinder Geometries - a Benchmark Test Case

S. Becker, University of Erlangen-Nuremberg, Erlangen, Germany

1430
AIAA-2007-3512
Nonmatching Grids for the Coupled Computation of Flow Induced Noise

S. Triebenbacher, University Erlangen-Nuremberg, Erlangen, Germany

1500
AIAA-2007-3513
Numerical Simulation of Unsteady Response of an Oscillating Airfoil Subject to a High-Intensity Gust

V. Golubev, ERAU, Daytona Beach, FL

1530
AIAA-2007-3514
Numerical Simulations of Equivalent Acoustic Sources Generation and Propagation Over a 2D High- Lift Wing in an Heterogeneous Mean Flow

C. Mincu, Office National d'Études et de Recherches Aérospatiales, Châtillon (Paris), France

Wednesday Afternoon / 23 May 2007**Session 45-AA-45**

Chaired by: F. FARASSAT, NASA Langley Research Center, Hampton, VA

Duct Acoustics VI**Corridoio**

1400 AIAA-2007-3555 Shear Layer Modelling with a Finite Element Model - Variants of the Munt Problem J. Manera, Free Field Technologies, Mont-St-Guibert, Belgium	1430 AIAA-2007-3554 3- D Aeroacoustic Research by Comparisons of 3- D FEM and Quasi- 3- D FEM G. Chen, Beijing University of Aeronautics and Astronautics, Beijing, China (prc)	1500 AIAA-2007-3717 Numerical prediction of SDOF- Perforate Plate Acoustic Treatment Impedance. Part 1: Linear domain S. Lidoine, Airbus France, Toulouse, France						
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Wednesday Afternoon / 23 May 2007**Session 46-AA-46**

Chaired by: U. MICHEL, DLR, German Aerospace Center, Berlin, Germany

Jet Aeroacoustics XI**Capranica**

1400 AIAA-2007-3660 Analysis of noise-controlled shear- layers D. Eschricht, Berlin University of Technology, Berlin, Germany	1430 AIAA-2007-3644 Air Injection Through Microjets in Low Mach Number Turbulent Jet Flows R. Camussi, University Roma Tre, Rome, Italy	1500 AIAA-2007-3659 Effect of Wedge- Shaped Deflectors on Flow Fields of Dual- Stream Jets R. Shupe, University of California, Irvine, Irvine, CA						
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Wednesday Afternoon / 23 May 2007**Session 47-AA-47**

Chaired by: V. KOPIEV, The Central Aerohydrodynamic Institute (TsAGI), Moscow, Russia

Jet Aeroacoustics XII**Capranichetta**

1400 AIAA-2007-3663 The Modified Complementary Technique applied to the Mach 0.85 axisymmetric jet for noise prediction. C. Tinney, University of Poitiers, Poitiers, France	1430 AIAA-2007-3664 Offset Stream Technologies Test - Summary of Results C. Brown, NASA Glenn Research Center, Cleveland, OH	1500 AIAA-2007-3661 Velocity dependence of the near pressure field of subsonic jets: understanding the associated source mechanisms. A. Guitton, Universite de Poitiers, Poitiers, France	1530 AIAA-2007-3662 Experiments on the Flow Field and Acoustic Properties of a Mach Number 0.8 Jet at Low Reynolds Numbers H. Slot, Delft University of Technology, Delft, The Netherlands					
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Due to formatting reasons, this version of the program lists only the first contributing author of each meeting paper. For a complete and up-to-date listing, please visit:

<http://www.aiaa.org/agenda.cfm?lumetingid=1493&dateget=all#session8242>.

Wednesday Afternoon / 23 May 2007

Session 48-AA-48

Chaired by: E. NESBITT, The Boeing Company, Seattle, WA

Turbomachinery and Core Noise V

Picasso

1400
AIAA-2007-3704
Analytical Modelling of
Sound Transmission
Through the Passage of
Centrifugal Compressors

J. Ingenito, Liebherr
Aerospace Toulouse
SAS, Toulouse, France

1430
AIAA-2007-3705
Solution of a Linearized
Lilley's Equation in the
Frequency Domain for
Turbofan Aft Noise
Prediction

D. Casalino, Centro
Italiano Ricerche
Aerospaziali, Capua, Italy