

Workshop Schedule

Dates: September 22-25, 2010
Date of arrival: September 21, 2010 (Tuesday)
Date of departure: September 26, 2010 (Sunday)

September 21 , Tuesday	Arrival
September 22 , Wednesday	Visit to I.Kant Russian Federal University, Kaliningrad City&Region excursion Welcome cocktail party (20:00)
September 23 , Thursday	First working day
September 24 , Friday	Second working day Banquet (19:00)
September 25 , Saturday	Outdoor and round-table discussions (9:00-19:00) Excursion to the Curonian Spit
September 26 , Sunday	Departure

French participants

- **Daniel JUVE**, LMFA, UMR CNRS 5509 & Ecole Centrale de Lyon, **coordinator**

DIRECT NOISE COMPUTATION OF A SUPERSONIC JET AT MACH 3.3

N. de Cacqueray, C. Bogey, C. Bailly, D. Juve
Centre Acoustique, LMFA, Ecole Centrale de Lyon, France

- **Philippe BLANC-BENON**, LMFA, UMR CNRS 5509 & Ecole Centrale de Lyon
- **Franck CLERO**, Department of Computational Fluid Dynamics and Aeroacoustics, ONERA, DSNA

□□□□□□ A decade of jet noise simulation at Onera: a review

Maxime Huet¹, François Vuillot¹, Gilles Rahier¹, Nicolas Lupoglazoff², Franck Cléro¹

¹Onera DSNA, Châtillon, France

²Onera DSNA, Palaiseau, France

- **Alain DERVIEUX**, INRIA, Sophia-Antipolis

MESH-ADAPTIVE COMPUTATION OF LINEAR AND NON-LINEAR ACOUSTICS

Anca.Belme¹, Alain.Dervieux¹, Frederic.Alauzet²

¹INRIA, Sophia-Antipolis, France,

²INRIA, Rocquencourt, France

- **Alexis GIAUQUE**, Department of Computational Fluid Dynamics and Aeroacoustics, ONERA, DSNA

□□□□ Challenges towards accurate and reliable acoustic studies of advanced propellers and open rotors

Alexis Giauque, Sylvette Canard-Caruana, Fabrice Falissard, Alain Chelius

Office National d'Etudes et de Recherches Aérospatiales, Computational Aeroacoustics Department, Châtillon, France

- **Marc JACOB**, Université Claude Bernard Lyon, Centre Acoustique du LMFA - CNRS 5509/ ECLyon

TIP Clearance Flow measurements and computations

Marc C. Jacob¹, Jérôme Boudet², Joëlle Caro²

¹Laboratoire de Mécanique des Fluides et d'Acoustique, Université Claude Bernard Lyon I / CNRS, Villeurbanne, France,

²Laboratoire de Mécanique des Fluides et d'Acoustique, Ecole Centrale de Lyon / CNRS, Ecully, France

- **Peter JORDAN**, Laboratoire d'Etudes Aérodynamiques à l'Université de Poitiers, LEA - CEAT

□□ Conditional analysis for studying sound-source mechanisms in jets

André V. G. Cavalieri^{1,2}, Franck Kerhervé¹, Peter Jordan¹, Yves Gervais¹ & Joël Delville¹

¹Institut Pprime, CNRS – University of Poitiers – ENSMA, UPR 3346, Poitiers, France

²Instituto Tecnológico de Aeronáutica, São José dos Campos, Brazil

- **Eric MANOHA**, Department of Computational Fluid Dynamics and Aeroacoustics, ONERA, DSNA

□□□□□□□□ Simulation of turbofan isolated/installed aft FAN noise compared to experiments
D.C. Mincu ¹, E. Manoha ¹, C. Parzani ², J. Chappuis ², S. Redonnet ¹, R. Davy¹ and M.
Escouflaire

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² Airbus S.A.S., BP M01 110/4, F-31060 Toulouse Cedex 03, France

German Participants

- **Frank THIELE**, Institute of Fluid Mechanics and Engineering Acoustics, Technische
Universität Berlin, **coordinator**□□□

□□□□□□□□ Modern numerical and analytical methods in duct acoustic simulations

F. Thiele, Ł. Panek, N. Schönwald, C. Richter

Technische Universität Berlin, Germany

- **Andreas BIRKEFELD**, Institut für Aerodynamik und Gasdynamik, Universität Stuttgart

Numerical Aeroacoustics with the Discontinuous Galerkin solver Noissol

Andreas Birkefeld, Andrea Beck, Claus-Dieter Munz

Institute of Aerodynamics and Gasdynamics, Universität Stuttgart, Stuttgart, Germany

- **Dandy ESCHRICHT**, Institute of Fluid Mechanics and Engineering Acoustics, Technische
Universität Berlin

□□□□□□□□ Detached-Eddy simulation of a serrated nozzle

Dandy Eschricht, Wang Liang, Ulf Michel and Frank Thiele

ISTA, TU Berlin, Berlin, Germany

- **Roland EWERT**, Institut für Aerodynamik und Strömungstechnik, Technische Akustik,
DLR

□□□□□□□□ CAA Broadband Noise Prediction for Aeroacoustic Design

Roland Ewert, Jürgen Dierke, Christina Appel, Andrej Neifeld, Malte Siefert, Oliver Kornow

Institute of Aerodynamics and Flow Technology, Technical Acoustics, German Aerospace Center (DLR), Braunschweig, Germany

- **Lars KOOP**, Institute of Aerodynamics and Flow Technology, German Aerospace Center (DLR)

□□□□□□□ Investigation of source mechanisms by SIMULTANEOUS PIV AND MICROPHONE-ARRAY MEASUREMENTS

Lars Koop¹, Arne Henning², Klaus Ehrenfried¹

¹German Aerospace Center, Goettingen, Germany

²Technical University of Berlin, Berlin, Germany

- **Ulf MICHEL**, Institute of Fluid Mechanics and Engineering Acoustics, Technische Universität Berlin

FWH INTEGRAL IN THE FREQUENCY DOMAIN FOR ARBITRARY FLOW MACH NUMBERS

Ulf Michel¹, Christian Weckmüller²

¹TU Berlin, Berlin, Germany

²DLR, Berlin, Germany

- **Wolfgang SCHROEDER**, Aerodynamisches Institut, RWTH Aachen

□□□□ On jet noise using numerical methods

Schröder, W. Foyi, H., Geiser, G. Koh, S.

□□□□□□□□ Institute of Aerodynamics, RWTH Aachen University, Wüllnerstraße 5a, 52062 Aachen, Germany

- **Joern SESTERHENN**, Institute of Fluid Mechanics and Engineering Acoustics, Technische Universität Berlin

- **Malte SIEFERT**, Institut für Aerodynamik und Strömungstechnik, Technische Akusitk, DLR

□□ A synthetic surface pressure model for the efficient simulation of boundary layer induced cabin noise

M. Siefert, R. Ewert¹, O. Heintze, O. Unruh²

¹Institute of Aerodynamics and Flow Technology, Technical Acoustics, German Aerospace Center (DLR), Braunschweig, Germany,

²Institute of Composite Structures and Adaptive Systems, German Aerospace Center (DLR), Braunschweig, Germany

Russian participants

- **Ilya ABALAKIN**, Keldysh Institute of Applied Mathematics RAS, Moscow
- **Anatoly ALEXANDROV**, Keldysh Institute of Applied Mathematics RAS, Moscow
- **Mikhail AVERYANOV**, Moscow State University, Moscow
M.Averiyanov, V.Khokhlova, MSU, Moscow; S.Olliver, Ph. Blanc-Benon, LMFA, ECL, University de Lyon, Lyon, France
Statistics of High Amplitude Acoustic Pulses Propagating in Turbulent Air Flow
- **Andrey GOROBETS**, Keldysh Institute of Applied Mathematics RAS, Moscow
A.Gorobets, S.Soukov, KIAM, Moscow
Large-Scale Aeroacoustics Simulations Using Supercomputers with Thousands of CPUs
- **Sergey KARABASOV**, Moscow Institute of Nuclear Safety RAS, Moscow; University of Cambridge, Department of Engineering, UK
S. Karabasov, Institute of Nuclear Safety RAS, Moscow; University of Cambridge, Department of Engineering, UK
On the Importance of Meanflow Propagation Effects on Understanding and Prediction of Jet Noise
- **Vera KHOKHLOVA/Petr YULDASHEV**, Moscow State University, Moscow
V.Khokhlova, M.Averiyanov, O.Sapozhnikov, P.Yuldashev, MSU, Moscow; S.Ollivier, Ph.Blanc-Benon, LMFA, ECL, University de Lyon, Lyon, France
Application of a Shadowgraphy Method to Measure the Shock Front of a Spark-Generated N-Waves in Air
- **Victor KOPIEV**, Central Aerohydrodynamics Institute (TsAGI), Moscow
V.Kopiev, G.Faranosov, N.Ostrikov, M.Zaitsev, TsAGI, Moscow; I.Abalakin, A.Gorobets, T.Kozubskaya, KIAM, Moscow
Experimental and Numerical Localization of Noise Sources for Cylinder in Round Jet
- **Tatiana KOZUBSKAYA**, Keldysh Institute of Applied Mathematics RAS, Moscow, **coordinator**
T.Kozubskaya, KIAM, Moscow; A.Duben, University STANKIN, Moscow; M.Mironov, AKIN, Moscow
Numerical Investigation of Resonators in a Waveguide
- **Alexey KUDRYAVTSEV**, Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk

A.Kudryavtsev, A.Shershnev, ITAM SB RAS, Novosibirsk; A.Ovsyannikov, ITAM SB RAS, Novosibirsk, LMFA, ECL, Lyon, France

Simulation of Interaction of Shocks and Acoustic Waves Basing on Continuum and Kinetic Approaches

- **Mikhail SHUR**, St-Petersburg State Polytechnic University, St-Petersburg
M. Shur, M.Strelets, SPbSPU, St-Petersburg; P.Spalart, Boeing, Seattle, USA
LES-Based Noise Prediction for Shocked Jets in Static and Flight Conditions

- **Mikhail STRELETS**, St-Petersburg State Polytechnic University, St-Petersburg
M. Strelets, A.Garbaruk, M. Shur, SPbSPU, St-Petersburg; R.Balakrishnan, P.Spalart, Boeing, Seattle, USA
DDES and IDDES of Tandem Cylinders Flow