1st DJINN CONFERENCE: **Industrially Oriented Jet Noise Reduction Technologies**

1-2-3 December 2021, ONLINE

Programme

30 Minutes for presentation plus 5 Minutes for discussion
(Invited lectures: 45 Minutes plus 5 Minutes for discussion)

Afternoon Sessions (Wednesday, 1 December 2021)	
12:00 – 13:00	**Registration**
13:00 – 13:10	**Welcome – Opening** by ***W. Haase*** *(CFD-Berlin, Germany)*
13:10 – 13:45	***W. Haase*** *(CFD-Berlin, Germany)* An Introduction to the EU DJINN project
13:45 – 14:55	**Session 1** (**Chairperson: H. Siller**, DLR, Germany)
13:45 – 14:20	***P. Jordan*** *(CNRS – Université de Poitiers, France)* Flow and acoustic fields of round turbulent jets
14:20 – 14:55	***J. L.T. Lawrence*** *(University of Southampton, UK)* SOTON Generic Isolated and Installed Jet Test Cases
14:55 – 15:30	*Coffee break*
15:30 – 17:15	**Session 2** (**Chairperson: H. Xia,** Loughborough University, UK)
15:30 – 16:05	***I. A. Maia[1], D. Eysseric[1], G. Brès[2], L. Lesshafft[3], P. Jordan[1]*** *([1]Institut Pprime, CNRS-Université de Poitiers-ENSMA, France, [2]Cascade Technologies Inc., USA, [3]Laboratoire d'Hydrodynamique, CNRS-Ecole Polytechnique, France)* Instability mechanisms in jets with flight effects
16:05 – 16:40	***F. Gand and M. Huet*** *(ONERA, France)* Zonal Detached Eddy Simulations of installed jet noise on unstructured grids with the elsA software
16:40 – 17:15	***U. Michel[1], M. Schwalbach[1], F. Thiele[1], H. Xia[2] , Ch. Ellis[2]*** *([1] CFD-Berlin, Germany, [2]Loughborough University, UK)* Evaluation of a low dissipation and low dispersion finite volume scheme for turbulent jet noise prediction
17:15	***End of day 1***

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Sessions on Thursday, 2 December 2021	
09:00 – 09:50	**Invited Lecture I (Chairperson: R. Ewert,** DLR, Germany) **M. Azarpeyvand** *(University of Bristol, UK)* An overview of jet noise research at the University of Bristol
09:50 – 10:25	**Session 3** (**Chairperson: J. Lawrence,** Southampton University, UK)
09:50 – 10:25	***C. Jente*** *(DLR, Germany)* Steady aerodynamics flow analysis for determining the necessary build space of an isolated jet shear layer
10:25 – 11:00	*Coffee break*
11:00 – 12:45	**Session 3 cont.**
11:00 – 11:35	***M. Mancinelli, U. Karban, I. Albuquerque Maia, P. Jordan*** *(CNRS-Université de Poitiers-ENSMA, France)* Linear reactive control of jet-plate interaction noise
11:35 – 12:10	***C. Jente*** *(DLR, Germany)* Jet-flap interaction noise in model scale and full scale - and the implications for evaluating noise reduction technologies
12:10 – 12:45	***C. Jente, J. Schmidt*** *(DLR, Germany)* Noise reduction of Jet-Flap-Interaction using porous trailing edges, perforated and slotted plates
12:45 – 14:00	*Lunch break*
14:00 – 14:50	**Invited Lecture II** (**Chairperson: F. Clero.** ONERA, France**)** ***H. Xia*** *(Loughborough University, UK)* Towards prediction of high Strouhal number spectra of single-stream jet noise
14:50 – 16:00	**Session 4** (**Chairperson: F. Clero,** ONERA, France**)**
14:50 – 15:25	***A.P. Markesteijn, V. Gryazev, S.A. Karabasov*** *(Queen Mary University of London, UK)* GPU CABARET solutions for the SOTON benchmark jet noise problem
15:25 – 16:00	***H.A. Abid[1], A.P. Markesteijn[1], V. Gryazev[1], S.A. Karabasov[1], H.K.Jawara[2], M.Azarpeyvand[2]*** *([1]Queen Mary University of London, UK, [2]University of Bristol, UK)* Jet Installation Noise Modelling Informed by GPU LES
16:00 – 16:20	Coffee break
16:20 – 18:05	**Session 4 cont.**
16:20 – 16:55	***D. Lindblad, S. Sherwin, Ch. Cantwell*** *(Imperial College London, UK)* Jet Noise Predictions using the High-Order Discontinuous Galerkin Method
16:55 – 17:30	***F. Basile [1,2], J.-B. Chapelier[1], R. Laraufie[2], P. Frey[3]*** *([1]ONERA, [2]Airbus SAS, [3]Sorbonne Universités)* hp-adaptive hybrid RANS-LES simulations and aeroacoustic analysis of jet flows using a high-order Discontinuous Galerkin method
17:30 – 18:05	***U. Karban[1], P. Jordan[2]*** *([1]Middle East Technical University, Turkey, [2]CNRS-Université de Poitiers-ENSMA, France)* Modeling closed-loop control of jet-flap interaction using Ginzburg-Landau equation
18:05	***End of day 2***

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Morning Sessions (Friday, 3 December 2021)	
09:00 – 10:45	**Session 5** (**Chairperson: S. Lemaire.** Dassault-Aviation, France)
09:00 – 09:35	***U. Michel, M. Höchel, F. Thiele*** *(CFD-Berlin, Germany))* Jet-wing interaction noise based on simulated surface pressure signals
09:35 – 10:10	***V.B. Ananthan, J. Dierke, R. Ewert*** *(DLR, Germany)* Evaluation of Low Noise Technologies for Jet-Flap Interaction Noise
10:10 – 10:45	***C. Jente*** *(DLR, Germany)* Acoustic Mach number, jet Mach number or jet speed – what is the optimal control property for jet noise experiments at AWB
10:45 – 11:15	*Coffee break*
11:15 – 13:00	**Session 6** (**Chairperson: S. Sherwin,** Imperial College London, UK)
11:15 – 11:50	***H. Siller, Ch. Jente, J. Schmidt, J.-B. Mansoux, W. Hage*** *(DLR, Germany)* Jet-noise experiments in the small-scale jet facility JExTRA
11:50 – 12:25	***J. L.T. Lawrence[1], A. R. Proença[2]*** *([1]University of Southampton, UK, [2]Cranfield University, UK)* Experimental Far-field Noise Results from Subsonic Single-Stream Isolated and Installed Chevron Nozzles
12:25 – 13:00	***C. Jente*** *(DLR, Germany)* Drivers of Jet-flap interaction noise: The thrust vs. shear layer difference velocity experiment
13:00 – 13:05	**Closing of the conference** by **W. Haase** (CFD-Berlin, Germany)