Advances on Rotor and Propeller Noise:

Prediction, Mitigation, and Future Challenges

26th Workshop of the CEAS-ASC, 21-22 October 2025, NLR-Marknesse, The Netherlands

Day 1: Tuesday 21st October 2025

Time	Talk/Activity	Speaker
08:00	**Departure bus from Zwolle**	
08:45 – 09:15	**Registration and coffee/tea**	
09:15 – 09:30	Welcome	Marthijn Tuinstra (NLR)
Technical session 1 – Chair: Jan Delfs		
09:30 – 09:50	Numerical Investigation of Rotor Aeroacoustics using the Lattice Boltzmann Method	Kieran Barry University of Bristol
09:50 – 10:10	Aeroacoustics and psychoacoustics of a turbulence-ingesting low Reynolds number propeller	Luca Nicola Quaroni TU Delft
10:10 – 10:30	Rotor Blade Tip Vortex Characterisation with Implications for Blade–Wake Interaction Noise	Muhammad Rehan Naseer University of Bristol
10:30 – 10:50	Aeroacoustics of turbulent wake ingestion by a propeller in edgewise flight	Andrea Colli University of Bristol
10:50 – 11:10	Coffee break	
Technical session 2 – Chair: Leandro de Santana		
11:10 – 11:30	Scaling Effects on Propeller Noise Generation under Variable Angle of Attack in Forward Flight	Bugrahan Ozturk TU Delft
11:30 – 11:50	On the Propeller Tip Vortex Characteristics and Its Interaction Noise	Amin Karimian University of Southampton
11:50 – 12:10	Experimental and analytical study of the aerodynamic noise emitted by a pair of electric propellers installed above a wing's trailing edge	Vincent Clair Ecole Centrale de Lyon
12:10 – 13:10	Lunch	

13:10 – 14:10	**Keynote lecture I**	**Micael Gianini Valle do Carmo** **Embraer**
14:10 – 14:20	Coffee break	
Technical session 3 – Chair: Alan McAlpine		
14:20 – 14:40	Noise of a Realistic Installed Propeller for eVTOL Vehicles	Leone Trascinelli University of Bristol
14:40 – 15:00	Tonal noise of propellers in a boundary-layer ingestion configuration	Tomas Sinnige TU Delft
15:00 – 15:20	Advances in propulsion testing at DNW	Iwan Philipsen DNW
15:20 – 15:40	Validation of a Fast Non-Empiric Rotor Noise Prediction Model for Installed Propulsors	Andrea Franco DLR
15:40 – 16:00	Coffee break	
Technical session 4 – Chair: Roberto Camussi		
16:00 – 16:20	A Data-Driven Reduced-Order Model for Installed Propeller Noise Prediction	Jatin Manghnani DLR
16:20 – 16:40	Mitigation of flow recirculation in ALCOVES for propeller noise measurements	Christophe Schram VKI
16:40 – 17:00	Development of an embarked microphone antenna for the measurement of manoeuvring drone noise	Peter Hartford VKI
17:00 – 17:20	Facing the Challenges of eVTOL Noise Prediction with Low-Order Methods	Tobias Lade DLR
17:20 – 17:40	Dynamic surrogate modelling enhanced by artificial intelligence and machine learning techniques for an efficient prediction of DEP aerodynamics and aeroacoustics	Caterina Poggi Roma Tre University
17:50	**Departure bus from NLR**	
19:00	Dinner at "*De Eendracht*" Pannekoekendijk 6, 8011BJ Zwolle	

Day 2: Wednesday 22nd October 2025

Time	Talk/Activity	Speaker
08:00	**Departure bus from Zwolle**	
08:45 – 09:00	**Registration and coffee/tea**	
Technical session 5 – Chair: Christophe Schram		
09:00 – 09:20	Experimental investigation of propeller noise from a 10% scale half-model eVTOL aircraft	Sung Tyaek Go University of Bristol
09:20 – 09:40	Simulation of sound from installed distributed Propellers using body-force model on cartesian grids	Jürgen Dierke DLR
09:40 – 10:00	Time-Domain Statistical Analysis of Broadband Propeller Noise	Thomas Corbishley University of Southampton
10:00 – 10:20	Cyclostationary Beamforming	Pieter Sijtsma PSA3
10:20 – 10:40	Zonalised Eddy-Resolving Simulation of Fan Turbulence and Noise	Zhong-Nan Wang University of Birmingham
10:40 – 11:00	Coupled Aeroelastic-Aeroacoustic Analysis of a Flexible Wing with Distributed Electric Propulsion	Beatrice De Rubeis Roma Tre University
11:00 – 11:20	Coffee break	
11:20 – 12:20	**Keynote lecture II – Large battery-electric aircraft: their potential and the challenges we need to solve**	**Reynard de Vries Elysian**
12:20 – 13:20	Lunch	
Technical session 6 – Chair: Pieter Sijtsma		
13:20 – 13:40	Noise Control Through Phase Synchronization in Axial and Edgewise Flight	Zilei Yi University of Bristol
13:40 – 14:00	Enabling Aeroacoustic and Aeroelastic Testing of Highly Loaded Propellers with Extreme Planforms	Mark-Jan van der Meulen NLR
14:00 – 14:20	Reduction of Supersonic Propeller Noise Using Vacuumed Perforations	Constantin Sandu COMOTI
14:20 – 14:40	Influence of tip clearance and Over-The-Rotor liners on aeroacoustic behavior of shrouded propellers	Andrea Bresciani VKI
14:40 – 15:00	Coffee break	
15:00 – 17:00	**Lab tours NLR & DNW**	
17:30	**Departure bus from NLR**	