CALL FOR PAPERS

3AF
Association Aéronautique et Astronautique de France

60th 3AF International Conference on Applied Aerodynamics

Sixty Years of Innovation & Upcoming Challenges in Aerodynamics

Paris, France – February 23-24-25, 2026

www.3af-aerodynamics.com

Visualization of leading edge vortices shedding of Concorde
Credit Henri Werlé

Wind tunnel test of the NASA's High-Lift Common Research Model at ONERA F1
Visualization of surface flow pattern with colored oil flow technique - Credit ONERA

Arts et Métiers Sciences et Technologies
DynFluid Fluid Dynamics Laboratory
CEAS Council of European Aerospace Societies
AIAA SHAPING THE FUTURE OF AEROSPACE
ROYAL AERONAUTICAL SOCIETY

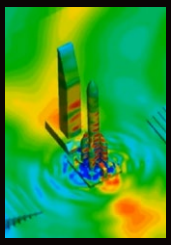
CALL FOR PAPERS

Aerodynamic visualization in wind tunnel on a fighter aircraft - Credit ONERA

Communication abstracts (300 to 500 words, preferably with figures) must be mailed to the 3AF Executive Secretary before **November 17, 2025**.

The Scientific Committee will inform the authors of acceptance by **December 01, 2025**, at the latest.

OFFICIAL LANGUAGE & PUBLICATIONS



Ariane 6 liftoff from the launch pad a) first flight, b) blast wave simulation
Credit ArianeGroup / CNES / ESA

Papers must be submitted and presented in English. The written version of the communications will be in English and must be sent to the 3AF Executive Secretary (aero.conf@3af.fr) before **February 13, 2026**, to allow their insertion in the conference proceedings. A 3AF template file will be provided for the preparation of the manuscript.

Authors of the most instructive contributions will be invited to submit an extension of their works for possible publication in a special issue of the *International Journal of Heat and Fluid Flow*. This special issue does not constitute the proceedings of the conference. Each submitted paper is reviewed by Guest-Editor-in-Chief and Advisory Editor of the journal. If the article is judged suitable for publication, it will be sent to at least two independent referees for peer review with the rigorous expertise process of the journal. Authors are however free to publish their paper in any other journal, a reference to the conference being then appreciated.

CONFERENCE DEADLINES

Abstract Submission:	**November 17, 2025**
Paper acceptance:	**December 1, 2025**
Full Length Paper:	**February 13, 2026**
Conference in Paris:	**February 23-25, 2026**

LES computation on a future reusable launcher configuration with 3 nozzles - Credit ArianeGroup

CONFERENCE SECRETARIAT COORDINATES

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3AF
Association Aéronautique et Astronautique de France

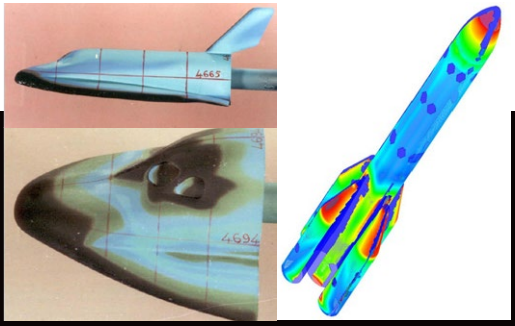
AERO2026

Sixty Years of Innovation & Upcoming Challenges in Aerodynamics

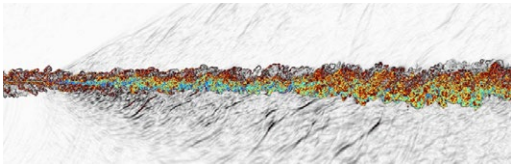
The field of **aerodynamics** has seen remarkable transformations **over the past six decades**, from the early supersonic jet age through engine airframe efficiency improvements, and into the modern era of sustainable aviation and space exploration.

The 60th International 3AF Conference on Applied Aerodynamics aims **to celebrate historical perspectives and technological evolution, such as aerodynamic advancements over sixty years,** the shift to computational fluid dynamics (CFD), progress in wind tunnel technology, and milestones in subsonic to hypersonic aerodynamics. It also seeks **to review current technologies, tools and concepts** including advanced simulations and computational fluid dynamics, AI and machine learning in design, multidisciplinary optimization, and new experimental techniques. Additionally, **the conference will explore future directions** like sustainable and green aviation, urban air mobility and eVTOL, hypersonic and space technologies, and bio inspired and morphing aircraft.

*This 60th Edition organised by the **3AF Technical Committee "Aerodynamics"** will be hosted by **DynFluid** the Fluid Dynamics Laboratory of **Arts & Métiers Institute of Technology, Paris**.*



SURFACE MEASUREMENT TECHNIQUES OF WALL HEAT FLUX
Blowdown hypersonic wind tunnels at ONERA (Meudon) – Credit ONERA
In the 70's to 90's - Images of the heating of HERMES hypersonic vehicule and its cockpit, Credit ESA, CNES & ONERA - 21st Century - Infrared thermography heating zones of Ariane 6 launcher in hypersonic flight, Credit ArianeGroup & ONERA



Schlieren density gradient in a supersonic compressible mixing layer
Credit Arts & Métiers / DynFluid

TOPICS OF INTEREST *(but not limited to):*

- Review of aerodynamics progress over last decades
- Advances in experimental techniques: wind tunnels, flight testing, and diagnostics
- High-fidelity computational fluid dynamics (CFD) and turbulence modelling
- Reduced-order modelling and data-driven methods
- Multidisciplinary design optimization (MDO)
- Aeroelasticity and aerodynamic stability
- Flow control and active aerodynamic devices
- Artificial intelligence and machine learning in aerodynamic analysis
- Green aviation: aerodynamic strategies for fuel efficiency and emissions reduction
- Certification and regulatory considerations in aerodynamic design

KEYNOTE SPEAKERS

Experts in the field will deliver keynote lectures covering both historical perspectives and visionary outlooks on future aerodynamic challenges and breakthroughs.

BONNET Jean-Paul, CNRS – P' Institute (R), FR
REIJASSE Philippe, ONERA (R), FR
RUIZ-CALAVERA Luis, Airbus, SP
SCHVALLINGER Michaël, Safran, FR
SPALART Philippe, Boeing (R), US

CONFERENCE THEMES

This event will explore the evolution and future directions of aerodynamic theory, experimentation, and computational modelling, in the following domains:

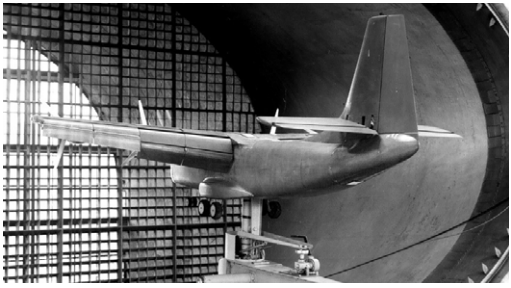
- **Aircraft:** Fixed-wing configurations, high-lift systems, flow control; Transonic, supersonic, and hypersonic flow regimes; Aerodynamic design optimization
- **Propulsion and engine-airframe integration:** Air-intake; Nozzle; Afterbody flow aerodynamics and plume effects
- **Turbomachinery:** Internal flows in compressors and turbines; Loss mechanisms and performance modelling; Cooling and secondary air system aerodynamics
- **Rotorcraft and helicopters:** Unsteady and blade-vortex interactions; Rotor aerodynamics, hover and forward flight; Urban air mobility and novel rotor configurations
- **Missiles, space launchers & re-entry vehicles:** Supersonic and hypersonic flight dynamics; Control surface and stability; Re-entry aerodynamics and SBLI, Thermal protection and aerodynamic heating; Aerodynamic shape optimization under multi-disciplinary constraints
- **VTOL and next-generation configurations:** Distributed propulsion and transition flight regimes; Integration of propulsion and airframe aerodynamics; Aeroacoustics performance
- **Non-aerospace applications:** Ground vehicles; Energy; Buildings

EXECUTIVE SCIENTIFIC COMMITTEE

BAÏRI Abderrahmane	Paris Nanterre University
BONNET Jean-Paul	CNRS – P' Institute (R)
BOUCHET Jean-Paul	CSTB
CHAPUT Eric	Airbus (R)
CINNELLA Paola	Sorbonne University
COLLINET Jean	ArianeGroup
GOWREE Erwin R.	ISAE-SUPAERO
JÉRÔME Émilie	DGA – Aero-engine Testing
KOURTA Azeddine	Orléans University
LEOPOLD Friedrich	Institut Saint-Louis
REIJASSE Philippe	ONERA (R)
ROBINET Jean-Christophe	Arts & Métiers Paris
ROSENBLUM Jean-Pierre	Dassault Aviation
SARTOR Fulvio	ONERA
SPALART Philippe	Boeing (R)

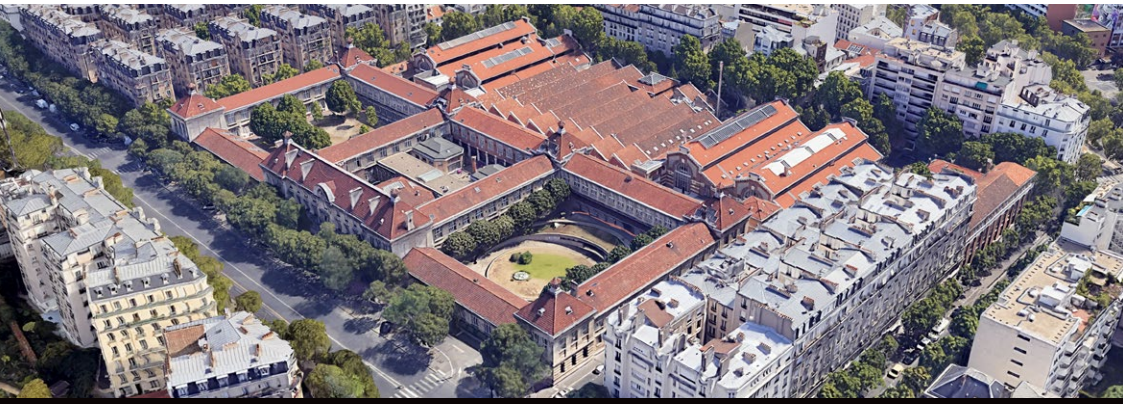
SCIENTIFIC COMMITTEE

Members of the 3AF Aerodynamics Technical Committee



Chalais-Meudon tests of flow separation control Bréguet Vultur, H. Poisson-Quinton, 1960 · Credit ONERA

Active flow separation control on NACA airfoil, PIV measurements, 2020
Credit PPRIME



CONFERENCE LOCATION

Arts et Métiers

151, boulevard de l'hôpital
75013 Paris

https://artsetmetiers.fr/en

Arts et Métiers Sciences et Technologies

DynFluid Fluid Dynamics Laboratory

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