

## CALL FOR PAPERS



ROYAL  
AERONAUTICAL  
SOCIETY

Aerodynamics Group Conference

# THE FUTURE OF AERODYNAMICS

RESEARCH, DEVELOPMENT, SIMULATION AND  
APPLICATIONS

2018 APPLIED AERODYNAMICS CONFERENCE -  
CELEBRATING THE FUTURE OF AVIATION

Publications Partner:

THE  
AERONAUTICAL  
JOURNAL

**BRISTOL, UK / 24 - 26 JULY 2018**

The Royal Aeronautical Society is proud to announce that its next biennial Applied Aerodynamics Research Conference will take place in Bristol between the 24th and 26th July 2018.

Aviation is growing steadily, traffic forecasts suggest doubling over the next two decades and the need for efficient and sustained growth is recognised.

Currently there are several international research programmes as well as the European and UK collaborative research projects, aimed at encouraging improved efficiency and greener aviation for all types of speeds, payloads and ranges via novel design and / or operations (e.g. clean sky, cruiser – feeders, laminar flows, morphing etc...). These civil aviation led research initiatives are also impacting on military research. There are many researchers spearheading the knowledge base needed. It is proposed that the conference will devote special sessions to focus on discussions and dissemination from these initiatives.

The 2018 Royal Aeronautical Society biennial Applied Aerodynamics Research Conference will also mark the 100th anniversary of the formation of the RAF. It will provide a forum for the presentation and discussion of aspects of the advancement of the aerodynamic disciplines and their application in the military context through current research, nearer term conception and longer term design and operations.

It is intended that the conference will provide an opportunity to review successes of the past and raise the profile of the challenges ahead and highlight the technologies required to ensure cost-effective solutions in a global market in sympathy with the increasingly demanding operational and environmental considerations.

The Conference is targeted at aerodynamics researchers, practitioners and programme managers from academia, industry and research establishments worldwide. The objective being to bring together aerodynamics professionals for a balanced perspective of fundamental science issues, and technological challenges

### INSTRUCTIONS TO AUTHORS

The Organising Committee invites prospective authors to submit abstracts of original work for presentation at the Conference.

Authors are requested to contribute both a half hour presentation at the conference and a written paper for the proceedings. Alternatively authors are welcome to propose abstracts for short presentations to be given in poster sessions, and are encouraged to submit a written paper with this.

The Organising Committee reserve the right to enforce a no paper, no present / no present, no paper rule.

Abstracts (in English) should contain between 800 - 1000 words and include figures and results. Abstracts and papers should be unclassified, suitable for open proceedings, presentation and discussion.

Scientific papers should indicate the maturity, validity of the content, the viability of the approach and the integrity of the results. Abstracts should discuss the application and exploitation of results.

The Committee will identify a number of reserve papers for each session.

Abstracts should be submitted by **Friday 2nd February 2018**. Accepted scripts and presentations, fully cleared for publication and presentation should be submitted by **Monday 2nd July 2018**.

### KEY DATES AND DEADLINES

- Abstracts submitted by: 2 March 2018
- Authors notified by: Late March 2018
- Programme Circulation: Late March 2018
- Presentations / papers submitted: 2 July 2018

### CONFERENCE AND EVENTS DEPARTMENT

Royal Aeronautical Society  
No.4 Hamilton Place  
London W1J 7BQ, UK  
T: +44 (0)20 7670 4345  
E: [conference@aerosociety.com](mailto:conference@aerosociety.com)

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related to current and future developments. In addition presenting new ideas, research results, and technology integration and validation as well as providing a forum for the presentation and discussion of results and experiences with a view to collaborations for future enhancement of capabilities. Finally the aim is to identify areas needing additional research and development.

Papers are invited to cover a broad spectrum of topics:

- Advanced Concepts - Aerodynamic Design Applications and Related Test Programmes
- Greener Aviation Perspectives and Resulting Issues
- New Aircraft Concepts & Derived Concepts from Current types (Civil & Military)
- Supersonics - Design, Prospects, Military and Civil
- Status of Laminar Flow Technology Adaptation
- Propulsion Aspects - Improving Efficiency
- Highly Integrated Propulsion / Airframe Concepts
- Advanced Rotorcraft
- Exploiting Military Technology into Civil Applications - the traditional approach
- Benefiting from Civil Applications in the Military Context - the future approach
- Impact of Advancing Materials, Structural, Aeroelastic & Adaptive Technologies
- Formation Flying
- Cruiser-Feeder Concepts, Air-to-Air Refuelling

All written papers will be included in the Conference Proceedings and made available to delegates through the Society's proceedings website. Accepted papers may also be considered for inclusion in the Royal Aeronautical Society's Aeronautical Journal, subject to the refereeing process.

It is important to note that papers should not have been published previously and they should avoid inappropriate sales or marketing content.

Speakers will be entitled to register using a reduced delegate rate.

To submit an abstract please email us with the following information:

- Corresponding author's name
- Speaker's name (including title)
- Speaker's job title
- Speaker's employer
- Title of presentation/ paper
- Abstract
- If you wish to present in the poster session

Please send this to Krisztina Omoregie, Conference and Event Organiser at the Royal Aeronautical Society, on [Krisztina.Omoregie@aerosociety.com](mailto:Krisztina.Omoregie@aerosociety.com).

Please quote reference no. #916

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- Simulations of Operations, Flight Dynamics & Control
- Routing Studies, Exploiting more Direct Routes, Hubs
- City Pairs, STOL Aircraft, Concepts
- Costs – Benefit Analyses & Economics
- Unmanned Air Vehicles: Designs, Aerodynamics, Stability and Control etc.
- CFD & Large Data Sets, Data Mining, Uncertainty Modelling
- Applied Hydrodynamics eg. Marine Applications, both Surface and Submerged

The above list is not exhaustive. Abstracts are encouraged in related applied aerodynamics aspects.

Additionally, there will be experts invited to cover the latest developments with relevance across both the civil and military scenes.

### Bristol

The conference will take place in Bristol, United Kingdom. Bristol is one of the major aerospace centres of the world and several aerospace companies including Airbus, Rolls-Royce, BAE Systems and Thales operate there. It is also renowned for its two major Universities with International connections.

Bristol lies some 120 miles west of London has seen 108 years of aviation. The city is well connected to national and international transport and the date of the Aerodynamics Conference has been chosen to dovetail with the Royal International Air Tattoo (13 - 15 July 2018) and the Farnborough International Air Show (16 - 22 July 2018).

### ORGANISING COMMITTEE

Dr Raj Nangia (Nangia Associates)  
Mr Rodney Irvine (MBDA)  
Prof. Jonathan Cooper (University of Bristol)  
Prof Russell Cummings (United States Air Force Academy)  
Prof. Kevin Knowles (Cranfield University)  
Prof. Konstantinos Kontis (University of Glasgow)  
Mr Nick Leppard (BAE Systems)  
Prof. Leonardo Manfredi (ZHAW & ICAS)  
Prof. Andrew Rae (University of Highlands & Islands, Perth, Scotland)  
Mr David Sawyers (Airbus UK)  
Dr Chris Toomer (UWE, Bristol)  
Dr Fay Collier (NASA Langley Research Centre, ICAS)

### AEROSPACE SPEAKERS TRAVEL GRANT (AESTG)

The Aerospace Speakers Travel Grant is a quarterly bursary fund focused on, but not exclusive to, young people at the beginning of their aerospace-related careers and is available for students who wish to present a paper on their research at a conference. To find out more and to view the deadlines for applications, please visit [www.aerosociety.com/AA2018](http://www.aerosociety.com/AA2018).

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