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Welcome at the 25th AIAA/CEAS Aeroacoustics Conference!

It is a great pleasure to welcome you to this 25th AIAA/CEAS Aeroacoustics Conference. We will celebrate 25 years of successful cooperation between AIAA and CEAS in organizing this joint aeroacoustics conference. All delegates will receive a lapel pin to commemorate this anniversary.

I’m proud to introduce this conference as organized and hosted by the Netherlands Association of Aeronautical Engineers (NVvL) with a great support and contributions from the Technical University Delft, the Netherlands Aerospace Laboratory NLR and German Dutch Wind tunnels DNW. The AIAA and CEAS Aeroacoustics Program Committees did a wonderful job in selecting more than 400 excellent papers from more than 25 countries and in setting up attractive sessions for the conference.

I look forward to welcoming you in Delft and I am certain you will enjoy the presentations and interaction with the many experts as well as the nice venue, technical tours, welcome reception and conference dinner during a tour through the Rotterdam harbor.

Christophe Hermans
President of the Netherlands Association of Aerospace Engineers
NVvL
Program at a glance

The conference will be held in the Aula Conference center of the Delft University of Technology. The combination of a Technical University, a pleasant old town, good accessibility and perfect equipment, makes the Aula Conference center an outstanding location for this event.

The conference registration desk is at the ground floor of the building. It will be open on Monday from 8.00 – 17.00 h, on Tuesday from 8.00 – 10.00 h and during lunch time and coffee breaks until 16.00 h, on Wednesday & Thursday from 8.00 – 9.00 h and during lunch time and coffee breaks until 16.00 h.

The opening event and plenary sessions will take place in the Auditorium. Papers will be presented during parallel sessions in:

- Aula Conference Center #20
  - Auditorium, Senate Hall, Frans van Hasselt room, Lecture rooms A/B/C/D and Committee rooms 1, 2 & 3 (second floor)
- Library building #21
  - Orange and Blue rooms (ground floor)
- X-building #37
  - Rhythm A&B (first floor)
  - Theatre Hall, Dance Studio A (second floor).
A floor plan of the TU Delft campus can be downloaded here: https://d1rkab7tlqy5f1.cloudfront.net/TUDelft/Over_TU_Delft/Contact_en_Berekbaarheid/Plattegrond_TUDelft.pdf.

A variety of companies, institutions and organizations will present themselves at the very spacious Foyer, where lunches will be served and networking opportunities exist during the breaks (first floor) while enjoying snacks, coffee and tea. On Monday and Tuesday afternoon a light meal will be offered during the late break (17.30 – 18.00 h) in the Aula and X-building. Lunches will only be served in the Foyer of the Aula.
Walking distance between Aula and X-building is approximately 10 minutes. On a regular basis a special bus will run between the sites.

On Monday, prior to lunch, a group picture will be taken outside in front of the Library.

Welcome Reception

Guides will take you on a 45 minute walking tour from the conference center (departure at 19.30 h) to the venue of the welcome reception in the Prinsenhof (Sint Agathaplein 1, 2611 HR Delft, [https://prinsenhof-delft.nl/en](https://prinsenhof-delft.nl/en)) on Monday 20 May (20.15 – 21.30 h). Museum Prinsenhof Delft was the scene of one of the most important events in Dutch history: the assassination of William of Orange. William of Orange moved into the Saint Agatha cloister in 1572, which was then renamed the Prinsenhof, and which eventually became the Museum Prinsenhof Delft. On 10 July 1584, he was gunned down by Balthasar Gerards as he climbed the stairs to his office. You can still see the bullet holes in the wall of the museum even today.

Conference dinner

On Wednesday 22 May we will enjoy the conference dinner, while cruising the impressive Rotterdam harbors. Busses will drive all delegates to Rotterdam (bus departure at 17.45 h in front of conference center) and back
to the Delft conference center after the dinner (arrival at approximately 23.00 h). Dress code: business casual.

Unique piece of history lives again in Rotterdam harbor! “Unforgettable”, “impressive” and “royal” are a few reactions of guests, who made a trip with this historic paddle steamer ‘De Majesteit’ (Maasboulevard (next to nr. 100), 3063 NS Rotterdam, https://www.raderstoomboot.nl/english-information/). Once aboard you will enjoy the nostalgic atmosphere during dinner while the authentic paddle steamer from 1926 with its steam engine and giant paddles takes you through the largest harbor of Europe and many attractive sights of Rotterdam.

Visit to Amsterdam

A bus with tour guide for those registered will take you on Friday 24 May from Delft to Amsterdam (45 – 60 minutes bus trip) for city sightseeing. Enjoy all the beautiful sights, a canal tour, the iconic bridges, magnificent 17th-century houses, the Rijksmuseum, all of them being fascinating points of interest! The bus will depart at 09.30 h in front of conference center and will be back in Delft at approximately 17.30/18.00 h.

11.00 – 12.00 h Canal tour by boat
12.00 – 16.15 h City visit (on your own) & Rijksmuseum
16.30 h Departure at Rijksmuseum
Conference program

The 25th AIAA/CEAS Aeroacoustics Conference (Aeroacoustics 2019) is the premier international forum for the field of aeroacoustics. Aeroacoustics 2019 provides an exceptional opportunity for scientists and engineers from industry, government, and academia to exchange knowledge and results of current studies and to discuss directions for future research.

Some 400 speakers have chosen the AIAA/CEAS Aeroacoustics conference 2019 to share their knowledge.

Keynotes

- **20 May, 10.30 – 11.30 h**: ‘25 Year of successful CEAS-AIAA collaboration on aeroacoustics’ by Hanno Heller (first CEAS Aeroacoustics ASC chair) & Phil Morris (AIAA Aeroacoustics TC member)
- **23 May, 13.00 – 14.00 h**: ‘From fundamental validation to predictive aeroacoustics: the joy and hurdles of PowerFLOW journey’ by Damiano Casalino (TU Delft / Dassault Systèmes)
Plenary sessions

- 21 May, 13.00 – 14.00 h: CEAS aeroacoustics award 2019 lecture and ceremony

The CEAS aeroacoustics award is presented to individuals or teams annually, who have made outstanding contributions in the field of aeroacoustics in Europe. The award also recognizes service to the aeroacoustics community through promoting the subject of aeroacoustics amongst governments, the aerospace community, the scientific community and the general public.

The CEAS aeroacoustics award 2019 will be given to Roland Ewert (DLR).

- 22 May, 13.00 – 14.00 h: AIAA aeroacoustics award 2019 lecture and ceremony

The AIAA aeroacoustics award was established in 1973 and is presented annually for an outstanding technical or scientific achievement resulting from an individual's contribution to the field of aircraft community noise reduction.

William J. Devenport (Virginia Tech) has been chosen as the recipient of the 2019 AIAA aeroacoustics award.

- 23 May, 13.00 – 14.00 h: AIAA/CEAS aeroacoustics student paper award 2019 ceremony

The student submitting a paper for consideration must be the primary author, and must have been a student at the time of the preceding AIAA/CEAS Aeroacoustics Conference. The AIAA/CEAS aeroacoustics student award will be selected during the conference on the basis of the technical quality of a paper and its presentation. Undergraduate and graduate students presenting papers for consideration in the competition are reporting on their thesis work conducted recently.
Special sessions

- **20 May, 16.00 – 19.30 h: NASA FDC Airframe Noise Tests**

This special session includes papers describing results obtained under the Flight Demonstrations and Capabilities (FDC) project of the NASA Integrated Aviation Systems Program. The presentations analyze airframe noise reduction technologies and prediction methodologies as substantiated by the Acoustic Research Measurement (ARM) flight tests and companion simulations.

Contact: Mehdi R. Khorrami (NASA Langley Research Center), Mehdi.R.Khorrami@nasa.gov

- **22 May, 08.30 – 12.00 h: IFAR Acoustic Liner Research**

The International Forum for Aviation Research (IFAR) consists of representatives from a number of national research labs and is established to enable information exchange on aviation research activities. One of the IFAR topics of interest is acoustic liner research. The purpose of this special session is to present results of progress achieved via this collaboration and to explore potential topics for further investigation. Specifically, this session will address two acoustic liner challenges. The first is for the comparison of results achieved in multiple labs with similar liners. The second is related to comparisons of 3-D aeroacoustic propagation codes against a benchmark dataset.

Session Contact: Michael G. Jones (NASA Langley Research Center), michael.g.jones@nasa.gov.
Workshops

- **20 May, 16.00 – 19.30 h: Hybrid Anechoic Wind Tunnel Technology**

The Hybrid Anechoic Wind Tunnel Workshop is dedicated to hybrid anechoic wind tunnels, which are wind tunnels that use tensioned fabric (often Kevlar) to contain the test flow and separated it from surrounding anechoic chambers. The goals of the workshop are to facilitate the exchange of technical information on the development and operation of current and planned facilities, to identify new opportunities and technologies of relevance, to discuss gaps in current understanding, and to build a consensus for best practices and standard test cases.

Contact: William J. Devenport (Virginia Tech), devenport@vt.edu

- **21 May, 10.30 – 12.00 h: Convected acoustics simulations with the linearized Navier-Stokes and Euler models using COMSOL Multiphysics® workshop (sponsored)**

This workshop will introduce the basic principles of convected acoustics simulations based on the linearized Navier-Stokes and the linearized Euler equations. Applications include the detailed modeling of acoustic liners with grazing flow, the interaction of idealized turbulence with structures, perforates with bias flow, and general problems of sound propagation in the presence of flow. For detailed models, the linearized Navier-Stokes model includes dissipation effects due to viscosity, thermal conduction, and turbulence. The workshop will include a short theoretical background as well as examples built using the Acoustics Module of COMSOL Multiphysics.

Contact: Mads Jensen (COMSOL), Mads.Jensen@comsol.com
The Flightpath 2050 (FP2050) strategy document has provided Europe with a vision for aviation and air transportation, identifying goals for the research community and policy makers alike. In order to achieve these challenging long-term goals, it is imperative to ensure that the required infrastructure for research activities addressing these challenges is available both to the necessary extent and in the required timeframe. RINGO ("Research Infrastructures - Needs, Gaps and Overlaps") is a Coordination and Support Action funded by the European Commission under H2020 aimed at delivering a cohesive and coordinated approach for the identification and assessment of the needs, gaps and overlaps for strategic aviation research infrastructures in Europe. To specifically access needs and gaps in aeroacoustics, a dedicated workshop will be organized by RINGO for invited specialists.

Contact: Lis Weilandt (RWTH), lis.weilandt@ilr.rwth-aachen.de

• 21 May, 18.00 – 19.00 h: Phased Array Measurements of Fly-over Noise

Specialist meeting to share experiences and expectations of aircraft flyover phased array testing. Discussing issues and questions such as: What are the purposes of this type of measurement now and in the future? Clearly source diagnostics, but how about certification? Modelling? What are the site requirements? How large does the array need to be? How do the processing techniques interact with the array design and the quality and timeliness of the final product?

Contact: Bob Dougherty (OptiNav, Inc.), rpd@optinav.com
ANIMA is a people-oriented research project that aims to:

- Better understand non-acoustical factors which influence noise annoyance
- Improve quality of life in communities surrounding airports
- Identify and promote best practices to lower noise annoyance

What does ANIMA do?

- Assesses existing noise mitigation strategies to determine best practices that tackle noise-related health impact
- Identifies insights on reducing annoyance and sleep disturbance through community engagement
- Develops cost-effective solutions for spatial planning
- Assesses the indicators for quality of life
- Enriches the knowledge on non-acoustical factors
- Develops noise management toolsets
- Further elaborates the European Strategic Roadmap in Aviation Noise Research
- Builds a European network of aviation noise experts

Who is expected to benefit from ANIMA?

Communities around airports
- Airport managers
- Researchers

Local authorities
- Aircraft industry
- European policy-makers

Visit us at the Aeroacoustics exhibition and online:

www.anima-project.eu

€ 7.45 million EU contribution
22 partners working towards a shared vision
48 months to build novel approaches
1 single community tackling aviation noise

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769627
Venue and accommodation

Delft University of Technology
Aula Conference Center
Mekelweg 5, 2628 CC Delft (Aula reception: +31.15 278 8022)

All rooms of the TU Delft Conference Center are equipped with necessary technology (screen, computer, connectors). Eduroam and conference Wi-Fi is available too. The building is fully handicap accessible.

Delft has a lot to offer! The city is well-known for its ties with the Dutch Royal family (tombs of William of Orange and members of the Netherlands Royal family) and the famous painter Johannes Vermeer. Delft is also world renowned for its Delft Blue earthenware and its lovely canals. Delft has a pleasant, well-preserved, lively historical center, with characteristic canals, ancient merchant houses, old churches and the splendid city hall. Delft is more than 750 years old. The city owes its name to the word 'delving',

![Image of Delft scenery]
digging the oldest canal, the Oude Delft. In 1246, Delft received its city franchise from the Dutch Earl Willem II. Delft is nicknamed ‘de Prinsenstad’ (the Prince's City), because William of Orange, the first in the Dutch royal line, held court in Delft in the 16th century. In 1842 the Royal Academy for Civil Engineers was founded. The Academy used the building vacated by the artillery school. The Academy of then is the TU Delft of today, which is also the largest employer in Delft.

Delft is synonymous with ceramics – ‘Delft Blue’ has been produced in this city for many centuries. At the end of the 16th century Flemish potters started to make imitations of southern European pottery. Because of the Spanish occupation, some of them fled from Antwerp to Delft and they provided the origins of the Delftware industry. Between the years 1600 and 1800 Delft was one of the most important ceramics producers in Europe.

Daily, about 27,000 people travel across the university campus: students, scientists, visitors, and employees of the university and the companies on campus. Stretching over 161 hectares, the campus is larger than downtown Delft, and one of the largest university campuses in the world. The campus has been equipped with an extensive bicycle and pedestrian road network. The TU Delft campus has a green, parky character. Large parts of the campus are therefore only accessible on foot, by bike, or public transport. For motorists there is the campus ring road, which circles the entire campus. Clear signage on the campus ring guides you easily to the central parking lots. From there, every destination is reachable on foot.
General Information

Climate

The Netherlands climate is moderate, with warm but sometimes wet summers and mild winters. Daytime temperature varies between five and twenty degrees in spring and autumn, and between fifteen and thirty degrees Centigrade during summer. Average rainfall accounts are 750 mm annually.

Currency and banking

The local currency is Euro (divided into 100 cents). All major credit cards are accepted all over the Netherlands in department stores, museums, hotels, restaurants and most shops. Most banks in Delft are open from 9.00 to 17.00 h (Monday to Friday).

Electricity

The voltage in the Netherlands is 220-240V. USA, English and some other foreign appliances require an adapter for the voltage as well as an adapter for the plug. Please bring your own adapter as there are no adapters available at the congress venue.

Emergency telephone number: 112

Health regulations

No vaccinations are required when entering the Netherlands from any other country.
Insurance

The organizers cannot be held responsible for injury to conference attendees or for damage to or loss of their personal belongings, cancellations of bookings etc. regardless of the cause. Attendees are advised to make their own insurance arrangements.

Language

English is the official language of the conference. No simultaneous translation will be provided.

Liability

The Organizing Committee cannot accept any responsibility for personal accidents or damage to private property of the participants. Participants are advised to take out insurance, as they consider necessary.

The participant acknowledges that he/she has no right to lodge damage claims against the organizers should the hosting of the conference be hindered or prevented by unforeseen political or economic events or by force majeure, or should non-appearance of speakers or other reasons necessitate Program changes.

By his/her registration, the participant accepts this provision.

Mobile phones

Use of GSM mobile phones in frequency-bands 900 MHz or 1800 MHz. Use of UMTS mobile phones in the area of the venue is possible but no coverage guarantee can be given.
Passports and Visa

Please consult your local Netherlands Consulate concerning passport or visa requirements well ahead of time.

Telephone

The international dial code for the Netherlands is +31. For international calls: dial 00 followed by the country code and the individual telephone number. For cellular phone: refer to the instruction of your provider.

Time

The Netherlands is in the Central European Time Zone. Central European Standard Time (CET) is 1 hour ahead of Greenwich Mean Time (GMT+1) with daylight saving time during the period of the conference.

Travel information

From Amsterdam Airport (by train)

Arriving at Amsterdam Airport Schiphol, the Schiphol train station is located directly below the airport. Direct trains to Delft (final destination Vlissingen) leave every 30 minutes from platform 5-6. The journey by train will take approximately 39 minutes. A one-way journey will cost € 9,60 (full fare, 2nd class) and € 16,30 (full fare, 1st class)

Where to buy train tickets?

You can travel on NS (the Dutch Railways) with a single-use chip card that is available from the yellow ticket machines with the blue overhead sign reading ‘train tickets’. You can find the ticket machines near the platforms at Schiphol Plaza. Tickets (for domestic and international travel) are also available at the Ticket- and Service desks at Schiphol Plaza. When travelling with a single-use chip card, you need to check in at a check-in point before
your journey, and to check out at a check-out point after your journey. For more information, please check the NS website.

From Rotterdam The Hague Airport (by bus and train)

Arriving at Rotterdam The Hague Airport there is no direct public transport to Delft. First take bus # 33 (direction Rotterdam Centraal, 20-25 minutes) to go to Rotterdam’s central station. A one-way journey will cost € 1,70 for the bus (full fare). The buses stop right next to the departures hall. Rotterdam central station has fast and regular railway connections to the city of Delft; almost every ten minutes trains to Delft leave from the platforms 8 or 9. A one-way journey will cost € 3,20 (full fare, 2nd class) or € 5,40 (full fare, 1st class) for the train. The total journey from the airport to Delft station will take approximately 40-50 min.

Where to buy bus tickets?

On board of the bus you can purchase the bus ticket to the central station. At Rotterdam’s central station you can purchase a single-use chip card from the yellow ticket machines with the blue overhead sign reading ‘train tickets’. Tickets (for domestic and international travel) are also available at the Ticket-and Service desks, which you can find in front of the luggage lockers and the toilets in the public area of the central station.

From Rotterdam The Hague Airport (by taxi)

You can also take a taxi to get to Delft. The taxi stand is located directly in front of the entrance/exit of the airport terminal. The fare to Delft (about 12 kilometers) will take 15-20 minutes (though not at rush hour traffic) and will cost approximately € 33.

Taxi services in Delft: www.dtdeltax.nl or call +31 (0)15 2191919.
Within the Delft University campus area parking is free, but there are a limited number of parking spaces. Parking in the City of Delft is not free and limited; there are a few parking garages; see [https://www.delft.nl](https://www.delft.nl).

**Website**


**Wi-Fi**

Free Wi-Fi is offered to conference delegates

- wireless network SSID (Service Set Identifier): Aeroacoustics2019
- Wi-Fi Protected Access (WPA2) key: tudelft2019

**Registration**

All participants (including chairs and speakers) have to register (online). Payments have to be made by credit card or bank transfer. Onsite registration will only be possible with credit card payment.

<table>
<thead>
<tr>
<th>Registration</th>
<th>Fee</th>
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<tbody>
<tr>
<td>Non Member</td>
<td>800 €</td>
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<tr>
<td>Member (CEAS*, AIAA), Speaker, Chairs</td>
<td>750 €</td>
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<td>PhD Student</td>
<td>400 €</td>
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<tr>
<td>BSc/MSc Student</td>
<td>150 €</td>
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<tr>
<td>Dinner ticket</td>
<td>100 €</td>
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<tr>
<td>Visit to Amsterdam</td>
<td>50 €</td>
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</tbody>
</table>

*CEAS (Council of European Aerospace Societies) members include 3AF, AAAR, AIAE, AIDAA, DGLR, FTF, NVvL, PSAA, RAeS, SWFV, TsAGI, CzAeS.
The registration fee includes conference attendance, on-line program, access to on-line papers, coffee breaks, lunches and entrance to welcome cocktail.

Cancellation/Refund Policy

- No refunds will be granted after 15 April 2019. No-shows will not be eligible for refunds.
- Refunds will be made after the conference.

Pick-up your registration material at the registration desk at the ground floor of the Conference Center. The badge must be worn visibly during the entire conference, incl. social events. If you forget or lose your badge, please contact the conference office.

Visa support

Visa support is provided for registered delegates only. Please contact mrs. Rosita Chhatta (mailto: Rosita.Chhatta@nlr.nl) if you want to receive an official invitation for the conference.

Conference Proceedings

Proceedings for the conference will be available online. The cost is included in the registration fee where indicated. Online proceedings will be available for viewing and downloading on Monday, 20 May. Please follow the instructions below to access the proceedings:

To view papers, visit arc.aiaa.org

1. Log into the site using the Login link at the top right of the page.
2. To browse, click on the Meeting Papers link at the top of the page and select the appropriate conference from the list.
3. To search for individual papers, use the **Quick Search** toolbar at the top:
   - Use the Search textbox to find papers by author, title or keyword.
   - To search by paper number - click the **Anywhere** drop down, select **Find by Paper**, select the conference year, and enter the paper number.
     *The Advanced Search link provides additional search information and options.*

4. Direct any questions concerning access to proceedings and/or ARC to **arcsupport@aiaa.org**.

**Twitter**

Please use the hashtag symbol (#) followed by the keyword Aeroacoustics2019 in your Tweets to help categorize and search for others tweeting about the conference: **#Aeroacoustics2019**
Hotel accommodation

All hotel bookings must be arranged by participants themselves. We advise all delegates to book their hotels well in advance.

Recommended hotels in close vicinity of the conference with reduced rates:

- Hotel de Plataan: [www.hoteldeplataan.nl](http://www.hoteldeplataan.nl)
- Westcord hotel: [www.westcordhotels.nl](http://www.westcordhotels.nl)
- Hampshire Delft Center: [www.hoteldelftcentre.nl](http://www.hoteldelftcentre.nl)
- Hotel Johannes Vermeer: [www.hotelvermeer.nl](http://www.hotelvermeer.nl)
- Casa Julia: [www.casajulia.nl](http://www.casajulia.nl)
More information about hotel accommodation in Delft can be found on the website [www.delft.com/](http://www.delft.com/).

Recommended hotel accommodation in neighbouring cities, with good public transport connections to Delft:

- Best Western Hotels Plus Grand Winston, Rijswijk [https://www.bestwestern.com/](https://www.bestwestern.com/)
- Babylon Hotel, the Hague [https://www.babylonhoteldenhaag.com](https://www.babylonhoteldenhaag.com)
- AccorHotels, the Hague [http://www.accorhotels.com](http://www.accorhotels.com)

**Contact & organizing committee**

Netherlands Association of Aeronautical Engineers NVvL
Anthony Fokkerweg 2
1059 CM Amsterdam
The Netherlands

Conference secretariat: [aeroacoustics2019@nlr.nl](mailto:aeroacoustics2019@nlr.nl)

**Organising Committee**

- Christophe Hermans (conference chair)
- Harry Brouwer (co-chair)
- Sjoerd Rienstra (CEAS technical co-chair)
- Ferdinand Grosveld (AIAA technical chair)
- Joris Melkert (conference treasurer)
- Marie Louise Verhagen (TU Delft Event Solutions)
- Annemieke van Ast (TU Delft Event Solutions)
At the front of Aeroacoustics

- State-of-the-art testing facilities
- Advanced data analysis
- Computational and analytical prediction methods

Royal NLR - a century of knowledge and innovation in aerospace
## Program Overview & Room Grid

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday (20 May)</th>
<th>Tuesday (21 May)</th>
<th>Wednesday (22 May)</th>
<th>Thursday (23 May)</th>
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### Library Building

- **Aula conference centre**
- **Library building**
- **X**

### Room Grid

- **Auditorium** (1000 p.)
- **Senate hall** (200 p.)
- **Frans van Hasselt** (100 p.)
- **Lecture room A** (350 p.)
- **Lecture room B** (350 p.)
- **Lecture room C** (250 p.)
- **Lecture room D** (250 p.)
- **Committee room 1** (20 p.)
- **Committee room 2** (40 p.)
- **Committee room 3** (80 p.)
- **Orange (oranje)** (70 p.)
- **Blue (Blauw)** (40 p.)
- **Theatre hall** (150 p.)
- **Rhythm** (70 p.)
- **Dance studio A** (70 p.)

### Event Overview

- **Monday (20 May)**
  - 08:30: Opening registration
  - 10:00: Opening (Auditorium) & keynote on 25 Year of successful CEAS-AIAA collaboration (Hanno Heller & Phil Morris)
  - 12:00: Lunch
  - 13:00: Break-out sessions
  - 15:30: Break

- **Tuesday (21 May)**
  - 08:30: Break-out sessions
  - 10:00: Break
  - 10:30: Break-out sessions
  - 12:00: Lunch
  - 13:00: Plenary (Auditorium): CEAS Aeroacoustics 2019 award ceremony (Roland Ewert, DLR)
  - 14:00: Break-out sessions
  - 15:30: Break

- **Wednesday (22 May)**
  - 08:30: Break-out sessions
  - 10:00: Break
  - 10:30: Break-out sessions
  - 12:00: Lunch
  - 13:00: Plenary (Auditorium): AIAA Aeroacoustics 2019 award ceremony (William Devenport, Virginia Tech)
  - 14:00: Break-out sessions
  - 15:30: Break

- **Thursday (23 May)**
  - 08:30: Break-out sessions
  - 10:00: Break
  - 10:30: Break-out sessions
  - 12:00: Lunch
  - 13:00: Plenary (Auditorium): keynote (Damiano Casalino, TU Delft) & AIAA / CEAS 2019 PhD student award ceremony (tbd)
  - 14:00: Break-out sessions
  - 15:30: Break
## Session names

### Break-out sessions

<table>
<thead>
<tr>
<th>Session Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acoustic/Fluid Dynamics Interactions</td>
<td>A/FDI</td>
</tr>
<tr>
<td>Active Control of Noise, Vibration and Flows</td>
<td>ACNVF</td>
</tr>
<tr>
<td>Advanced Testing Techniques</td>
<td>ATT</td>
</tr>
<tr>
<td>Airframe/High-Lift Noise</td>
<td>A/HLN</td>
</tr>
<tr>
<td>Community Noise and Metrics</td>
<td>CNM</td>
</tr>
<tr>
<td>Computational Aeroacoustics</td>
<td>CAA</td>
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<tr>
<td>Duct Acoustics</td>
<td>DA</td>
</tr>
<tr>
<td>Emerging Urban Aviation Noise</td>
<td>EUAN</td>
</tr>
<tr>
<td>General Acoustics</td>
<td>GA</td>
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<tr>
<td>Integration Effects and Flight Acoustics</td>
<td>IEFA</td>
</tr>
<tr>
<td>Interior Noise/Structural Acoustics</td>
<td>IN/SA</td>
</tr>
<tr>
<td>Jet Aeroacoustics</td>
<td>JA</td>
</tr>
<tr>
<td>Loads/Sonic Fatigue</td>
<td>LSF</td>
</tr>
<tr>
<td>Propeller, Rotorcraft and V/STOL Noise</td>
<td>PRVSN</td>
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<tr>
<td>Sonic Boom</td>
<td>SB</td>
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<tr>
<td>Turbomachinery and Core Noise</td>
<td>TCN</td>
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</tbody>
</table>

### Special sessions

<table>
<thead>
<tr>
<th>Special Session</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>Special Session on IFAR Acoustic Liner Research</td>
<td>SS/ALR</td>
</tr>
<tr>
<td>Special Session on NASA FDC Airframe Noise Flight Tests</td>
<td>SS/ANT</td>
</tr>
</tbody>
</table>

### Workshops

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Code</th>
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<tbody>
<tr>
<td>Hybrid Anechoic Wind Tunnel Technology</td>
<td>WS/HAWT</td>
</tr>
<tr>
<td>EU RINGO workshop</td>
<td>WS/RNG</td>
</tr>
<tr>
<td>COMSOL workshop (sponsored)</td>
<td>WS/COM</td>
</tr>
<tr>
<td>Phased Array Measurements of Fly-over Noise</td>
<td>WS/FON</td>
</tr>
</tbody>
</table>
Conference program details

Conference program details can be found on the "My Itinerary" conference app with the option to create your own agenda. The AIAA Online Planner contains the same information and those who create agendas in the web version will be able to use them in the app as well.

The complete list of papers to be presented is annexed to this conference program.

You can also go to https://www.aiaa.org/aeroacoustics2019/ > Detailed Agenda or to https://www.nlr.org/aeroacoustics-2019/ > Program to open the web version.

Information for chairs & speakers

Presentation

Upload of presentations will be done on the day of the presentation in the subject meeting room. Presenters are requested to meet with their session chair at least 15 minutes prior to the start of the subject session.

Each session room is equipped with a PC system (Windows based operating system, versions 7 or 10, MS Office 2013 or 2016 applications, Adobe reader)
for presentation purposes. Presentation equipment aspect ratio is 16:9. Own devices may be used for presentation purposes, but compatibility of systems and interfaces cannot be guaranteed. Available interfaces are VGA & HDMI. Therefore presenters in any case should bring their presentation on a USB-stick.

There will be no speaker briefings.

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If a written paper is not submitted by the final manuscript deadline, authors will not be permitted to present the paper at the conference. It is also the responsibility of those authors whose papers or presentations are accepted to ensure that a representative attends the conference to present the paper. If a paper is not presented at the conference, it will be withdrawn from the conference proceedings. These policies are intended to eliminate no-shows, to improve the quality of the conference for all participants, and to ensure that the published proceedings accurately represent the presentations made at a conference.

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All session chairs are asked to complete a session chair report to evaluate their session for future planning purposes, including session topics and room allocations. AIAA has partnered with GoCanvas to provide an electronic
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Please contact TU Delft conference office (Aula reception: +31.15.2788022, [aeroacoustics@tudelft.nl](mailto:aeroacoustics@tudelft.nl)) in case you have additional questions.
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AIAA Aeroacoustics TC meeting on Monday 20 May from 08.30 – 10.00 h in Committee Room 3.
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