

Official Language

All papers must be submitted and presented in English, the official language of the conference.

Technical Tours

Technical tours will be organized to visit the major R&D centers and aerospace industries of the region.
The tours will take place on Friday, July 7, 2017.

Registration fee

Students: 170 € early bird

300 € after May 28, 2017 (confer a two-year EUCASS membership)

Standard attendees: 850 € early bird

950 € after May 28, 2017 (confer a two-year EUCASS membership)

Additional paper presentation: 100€ each

Conference dinner (not included) 65€ for attendees, 70€ for accompanying person.

Conference Venue

Politecnico di Milano

Campus Bovisa - 20156 Milano



**POLITECNICO
MILANO 1863**



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Exhibition/ Sponsoring

EUCASS 2017 will offer space for exhibitions which provides an excellent opportunity to demonstrate expertise, products and services to a targeted group of researchers, scientists, engineers and senior managers. Customized Sponsorship packages will be available to allow for brand positioning throughout the event.

Technical Committee

Become a committee member, just feel free to apply.

Chair: Max Calabro (max.calabro@innerarch.eu)

Contact point per symposium:

Systems: Christophe Bonnal, CNES (christophe.bonnal@cnes.fr)

FP: Doyle D. Knight, Rutgers University (doyleknight@gmx.com)

Str&Mat: Blanka Lenczowski, Airbus (blanka.lenczowski@airbus.com)

FD/GNC: Martine Ganet, Airbus DS (martine.ganet@airbus.com)

Propulsion: Luciano Galfetti, Politecnico di Milano (luciano.galfetti@polimi.it)

Conference Secretariat Coordinates

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CONFERENCE DEADLINES

September 15, 2016

Website Open for
Abstract Submission



December 15, 2016

Abstract Submission Deadline

March 2017

Notification of Acceptance
Rejection of Papers
Registration site open

May 28, 2017

Increase in registration fee

June 4, 2017

Final Manuscript Deadline

eucass 2017 7th European Conference for Aeronautics and Space Sciences



**3 > 6
JULY
2017**

**Milan
ITALY**

Call for papers



European Collaborative Dissemination of Aeronautical research and applications
An FP7 AERONAUTICS and AIR TRANSPORT (AAT) Coordination and Support Action (CSA)





call for papers

Objectives

EUCASS is the main continental scientific event for aeronautics and space sciences, second only to the AIAA Scitech in the USA. This issue is the seventh, after Moscow, Brussels, Versailles, Saint Petersburg, Munich and Krakow. It will, again, attract the very best players from EU and Russia plus the rest of Europe, Asia and the Americas, for a total anticipated attendance in excess of 700, scientists, engineers and exhibitors alike. Decision makers from Industry and Agencies are invited to express their needs and challenges. EUCASS is the natural high-level forum for all aeronautics and space research players. It showcases promising fundamental breakthroughs, enabling sciences and technologies. The main objectives are to:

1. review the state of the art in Aeronautics and Space Sciences, focusing on promising innovations;
2. promote industrial understanding of recent scientific breakthroughs and develop synergies between Aeronautics and Space, Academia and Industry;
3. give Agencies and Industry the opportunity to present their programs, particularly EU's Framework programme.

The conference will highlight advances in aeronautics and space sciences in five parallel symposia dealing with aspects of:

- **System Integration**
- **Flight Physics**
- **Flight Dynamics/ GNC and Avionics**
- **Structures and Materials**
- **Propulsion Physics**

Informative abstracts of at least one full page can be uploaded from September 15, 2016 until December 15, 2016.

If abstracts are accepted, authors will be invited to prepare a full 10-15 page paper and submit it before the absolute deadline of June 4, 2017.

Papers submitted in due time will be published in the conference proceedings.

Commercial papers will be rejected.

SYSTEM INTEGRATION on Aircraft and Space Launch Vehicles

Chairs: L. Anselmo (CNR, Pisa), V. Aslanov (Samara State Aerospace University), C. Bonnal (CNES), J. Gigou (ESA), K. E. Post (Boeing), M. Sippel (DLR), P. Tatry (Airbus), W. Zinner (Airbus Defence and Space).

This symposium is concerned with multidisciplinary and integration problems (subjects where separate disciplines interact in synergy).

Papers are solicited in the fields of: MDO, fluid-structure-GNC-thermal interaction, mission/ trajectories, advanced or new concepts, actuator, vehicle comfort , FDIR approaches, embedded systems/ trends on Information

technologies, architecture design with COTS hardware, augmented reality, energy harvesting, system aspects of space debris, special sessions on on-going research program.

FLIGHT PHYSICS for Aircraft and Launch Vehicles including Re-Entry Bodies

Chairs: Y. Bondar (ITAM), D. Knight (Rutgers), I. Lipatov (TsAGI), P. Reijasse (Onera).

The Flight Physics Symposium addresses all aspects of aerodynamics relevant to aircrafts and UAVs, missiles and projectiles, launchers, and re-entry vehicles. Aero-acoustics will be also examined for aeronautical applications with a special focus on landing and take-off flight phases of aircraft. Topics will deal both with external and internal flows since aerodynamics or aero-acoustics are the main concern of the symposium. Papers will privilege at least one of the following three approaches: physical understanding, theoretical analysis, and/ or the development of control technologies and control methodologies applied to aeronautical or aerospace flows.

Prospective authors are encouraged to submit papers in the fields of: Advanced CFD tools, laminarity and boundary layer transition, experimental diagnostics in low and high speed flows, surface imperfections and viscous drag, flow control, flow instability and separation, hypersonic aerothermodynamics, in-flight and wind-tunnel testing, advanced flow measurements, MHD, shock wave boundary layer interactions, turbulence modelling (e.g., DNS, LES, RANS, URANS, DES), plasma dynamics, rarefied and non-equilibrium flows, vortex dynamics.

STRUCTURES AND MATERIALS for Aeronautic and Space Systems

Chairs: M. Berdoyes (Safran), S. Beyer (Airbus Defence & Space), Gómez Garcia (Airbus), B. Lenczowski (Airbus Defence and Space), W. Lubert (TUM), K. Mathis (CNES).

The structures and materials symposium covers profound improvements introduced in aerospace structures and engines through innovative materials, processing technologies, structural design and analysis. Massive introduction of fiber-reinforced organic composites has become a reality and the introduction of other composites is progressing in the engines.

Papers are solicited in the fields of: Materials and technologies (metallic and composite), structural design including design principles, manufacturing and assembly of composite and metallic structures as well as structural dynamic/static analysis, fatigue and fracture, vibro-acoustics, impact and shock response, aero-elastic design and testing methodologies under both static and dynamic loading, health monitoring via electronic signature, acoustic, shock and vibration absorbers, additive manufacturing.

FLIGHT DYNAMICS/ GNC and AVIONICS for Aeronautic and Space Applications

Chairs: D. Choukroun (Ben-Gurion U.), M Ganet (Airbus Defence and Space), A. Nebylov (SUAI), C. Philippe (ESA), B. Rmili (CNES).

This symposium will cover the applications of novel analytical and experimental methods for the analysis and the prediction of the flight dynamics of civil and military airplanes, drones, launch vehicles and spacecraft as well as GNC and avionics.

Papers are solicited in the fields of: Control, mission analysis, flight management, guidance, navigation, multi-sensor data fusion, image processing, on-board decision and autonomy, verification and validation technology, advanced technologies and state-of-the-art research in energy storage, power distribution, sensors, radiation-hard electronics, wireless and power line communications, embedded software, advanced modelling and simulation techniques, data coding and modulations, fault tolerance, avionics architectures such as embedded computing platforms, communication and telemetry data networks, thermal management, power control, centralized versus distributed systems.

PROPULSION PHYSICS for Air-Breathing and Rocket Engines

Chairs: H. Ciezki (DLR), S. Frolov (RAS), L. Galfetti (Politecnico di Milano), G. Hagemann (Airbus Defence and Space), O. Haidn (TUM).

The Propulsion Physics Symposium will cover all aspects of air-breathing and space propulsion, spanning from new developments in engines and propellants to modeling and testing. Topics range from basic research and development to applied studies, using experimental, theoretical and/ or advanced numerical methods, with a special focus on fundamental physical understanding.

Papers are solicited in the fields of: Air-breathing propulsion (alternative fuels, supersonic/hypersonic aircraft propulsion, scramjet/multi-mode ramjet, modified and combined cycles, pulsed detonation engines), launch vehicle propulsion (all kinds of chemical propellants), in-space propulsion (chemical, electric and nuclear engines; solar radiation; beamed energy; micro-propulsion; propellant-less techniques; on-board power), propulsion aspects of space debris, propellant injection and ignition, combustion fundamentals, combustion stability, combustion modeling, heat transfer and cooling technologies, thrust nozzles, turbo-machines for air-breathing and rocket engine. Specific sessions may be dedicated to on-going activities in the framework of the current European research programs.

MINI SYMPOSIA/ WORKSHOPS

Persons willing to organize a mini symposium or a workshop dedicated to special topics (e.g. Clean Air, Space Debris, Combustion Instability, UAV, Supersonic Civil Aircraft, Additive Manufacturing, Green Fuels etc.) are invited to contact the concerned Symposium Chair.