



# 18<sup>th</sup> AIAA/3AF International Space Planes and Hypersonic Systems and Technologies Conference



24–28 September 2012  
Vinci International  
Congress Centre of Tours  
Tours, France



## EVENT PREVIEW





# Welcome

Dear Colleague,

The AIAA and 3AF warmly invite professionals from industry and research institutions, as well as students working in the field of aeronautics and astronautics to come to Tours to attend the 18th AIAA/3AF International Space Planes and Hypersonic Systems and Technologies Conference. This event will bring together delegates from some twenty nations, demonstrating the strength of hypersonics internationally and the significant extent of international cooperation that underpins the research and activities presented. Future vehicle concepts will be described, supported by the rapidly advancing science and technology required to realize those concepts. The event will reflect the increasing synergy among experimental, numerical, and flight test approaches, and the rapid evolution in experimental and numerical tools. A highly multidisciplinary event, it brings together essentially all relevant aspects of spaceplane and hypersonics R&D in the same forum, providing an unparalleled opportunity to gain insight across the full spectrum of activities in the field.

A stellar program is planned and conference attendees will gain valuable insight into the current state of spaceplane and hypersonic programs, learn about leading-edge research advancements and flight test programs, and better understand evolving international collaborations. Confirmed speakers for the event include:

- Yann Barbaux, CEO of EADS Innovation Works
- Phillippe Cazin, Former Director for Military Applications at ONERA
- Christer Fureby, Swedish Defense Research Agency
- Herman Hald, DLR
- Roger Longstaff, Reaction Engines, Ltd.
- Sannu Molder, Ryerson Polytechnic University
- Jean-Pierre Taran, ONERA

Attending this conference will provide attendees the opportunity to meet and interact with many of the world's premier technical experts in the field of spaceplanes and hypersonics. We hope you'll join us this Fall in Tours, France!

Sincerely,

David Stallings  
Conference General Chair





## Special Events

### Monday, 24 September 2012

#### Welcoming Cocktail Reception

The Mayor of Tours is inviting the participants to a welcoming cocktail reception at the Tours city hall from 1900–2000 hrs.

### Wednesday, 26 September 2012

#### Conference Dinner

#### Château de la Bourdaisière

The Château de la Bourdaisière is a magnificent fifteenth-century castle located in the heart of the Loire Valley, a UNESCO world heritage site. Near the biggest Castles of the Loire, it is situated between the vineyards of Montlouis and Vouvray, in an enclosed park of 55 hectares (135 acres). The park and the gardens of the Château de la Bourdaisière bring the art of living to its fullest potential, with gardens full of a rare variety of aromas, tastes, and colors, from the herb and dahlia gardens to the National Tomato Conservatory with more than 400 heirloom varieties.

The beautiful evening will start with a cocktail reception on the sixteenth-century terrace, overlooking one of the estate's many gardens, which guests will have the opportunity to visit. Dinner will be served in François the First's "vaulted banquet hall" whose impressive "Tuscan architecture" is unique in the Loire Valley.

### Thursday, 27 September 2012

#### Awards Luncheon with Distinguished Speaker

*Yann Barbaux, CEO of EADS Innovation Works*

Join fellow attendees at the AIAA Awards Luncheon, being held in the Agnès Sorel Lounge at the Vinci International Congress Centre of Tours. The Hypersonics Systems and Technologies Award and Certificate of Merit for the Hypersonics Best Paper are scheduled to be presented. The luncheon is included in the registration fee where indicated. Additional tickets may be purchased for \$60 on site at the AIAA registration desk, based on availability.

# Benefits of Attendance

This is the 18th in the International Spaceplanes and Hypersonic Systems and Technologies Conference series, which began in the days of spaceplane programs such as NASP, HERMES, SÄNGER, HOTOL, PREPHA, and HOPE, and will reflect the exciting evolution of the field. Concrete projects for hypersonic flight date back to the 1950s, with vehicles such as the Dynasoar, based on studies in earlier decades by René Lorin on ramjets, Eugen Sanger on rocketed flight, Antonio Ferri and Frederick Billig on scramjets, and Adolf Busemann on supersonic aerodynamics. This 18th conference will provide a forum for reviewing the latest advancements in these fields together with other technologies relevant to space plane and hypersonic system development.

## What to Expect?

### Technical Program Highlights:

- Distinguished Lectures
- Close to 200 Technical Paper Presentations
- Technical Poster Presentations
- Technical Tours (Tentative)

### Networking:

- Welcoming Cocktail Reception
- Awards Luncheon
- Off-Site Conference Dinner at Château de la Bourdaisière
- Daily Networking Coffee Breaks

## Who Should Attend?

- Engineering managers and industry executives
- Young aerospace professionals
- Engineers, researchers, and scientists
- Educators and students
- Media representatives

# Travel and Accommodations

## Hotel Information

A block of rooms has been reserved through Vinci Conventions for various 3-star and 4-star hotel accommodations. Room rates vary from €89 to €183 per night. The total amount to pay consists of administration fees of €10 plus a deposit equal to the average price for one night in the hotel category whatever the duration of your stay. Three-star hotels are divided into two categories (A & B), according to their rates. The deposit will be deducted from the hotel bill when checking out.

Room reservations will be held until 24 August 2012 or until the room block is filled. To make your hotel reservation please visit [www.aiaa.org/hypersonics2012](http://www.aiaa.org/hypersonics2012) and click the Plan Your Trip link on the right-hand side of the page, then click Travel and Accommodations. See below for hotel options and rates.

## Pre-Reserved Hotels

The rates below are valid 24–27 September 2012.

Hotel	Stars	Single Rate	Double Rate	Breakfast	Tax	Distance from Conference Center	City
IBIS	2	€89	€89	€9	€1.10	6 minutes on foot	Tours
KYRIAD	3	€89	€89	€10	€1.10	15 minutes on foot	Tours
ALLIANCE	4	€160	€175	included	€1.10	5 minutes on foot	Tours
GRAND HOTEL	3	€135	€135	€12	€1.10	1 minute on foot	Tours
MERCURE	3	€135	€155	€14	€1.10	6 minutes on foot	Tours

## Transportation

**By car:** Tours is connected to Paris and Bordeaux by the A10 motorway. Modern motorways link Tours to the other major centers of France.

Paris: 240 km (150 miles – 2h 10 min.); Bordeaux: 330 km (205 miles – 3h 15 min.); Nantes: 196 km (122 miles – 1h 45 min.); Lyon: 432 km (268 miles – 4h)

**By train:** The main railway station, Gare de Tours, is located in the center of the city, just in front of the Vinci International Congress Centre of Tours, where the symposium takes place. It is served by the TGV (high-speed train) from the Charles de Gaulle Airport in approximately two hours or from downtown Paris (Gare Montparnasse) in approximately 55 minutes. It also has connections to Bordeaux and Nantes.

Paris: 55 min.; Bordeaux: 2h 30 min.; Nantes: 1h 30 min.; Lyon: 3h 30 min.

**By plane:** The Tours Val de Loire Airport at the city gates serves destinations in France and elsewhere in Europe.

London: 1h 15 min.; Dublin: 1h 30 min.; Marseille: 1h 20 min.; Porto: 2h.

## Special Thanks to Our Organizing Committee

David Stallings, General Chair

David Van Wie, Technical Committee Chair

*Johns Hopkins University Applied Physics Laboratory*

### Australia

Russell Boyce  
*University of Queensland*

### China

Jin Fan  
*Institute of Mechanics, Chinese Academy of Sciences*

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*Japan Aerospace Exploration Agency, JAXA*

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*University of Strathclyde*

# **18th AIAA/3AF International Space Planes and Hypersonic Systems and Technologies Conference 2012**

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