



24th SFTE EC Symposium

Society of Flight Test Engineers
11-13 June 2013
Braunschweig, Germany
German Aerospace Center



About DLR

DLR, the German Aerospace Center, is Germany's national research centre for aeronautics and space. Its research and development work in aeronautics, space, energy, transport, defence and security is integrated into national and international cooperative ventures. As Germany's Space Agency, DLR is tasked with the planning and implementation of Germany's space programme. In addition, two project management agencies have been established to promote DLR's research.

DLR conducts research into Earth and the Solar System, it delivers important data for the preservation of our environment and develops environment-friendly technologies to enhance power supply, mobility, communication and security. DLR's research portfolio ranges from basic research to the development of products for tomorrow.



DLR is the largest civilian operator of research aircraft in Europe. Its versatile fleet comprises 13 wholly-owned aircraft. With them, the DLR Flight Experiments Facility can handle almost any mission – something that many customers appreciate as much as the DLR institutes themselves. Jets, turboprops, rotary-wing aircraft, light aircraft and gliders; a fleet of research aircraft could hardly be more versatile than that. Researchers and scientists from around the world make use of the services of DLR.

DLR operates large research facilities for its own projects and also acts as a service provider for customers and partners from business and industry. It also promotes and encourages new scientific talent, provides advice to politicians and is a driving force in the regions that are home to its 16 sites.

DLR employs 7300 people; the Center has 32 institutes and facilities at 16 locations in Germany: Cologne (headquarters), Augsburg, Berlin, Bonn, Braunschweig, Bremen, Göttingen, Hamburg, Jülich, Lampoldshausen, Neustrelitz, Oberpfaffenhofen, Stade, Stuttgart, Trauen and Weilheim. DLR also has offices in Brussels, Paris, Singapore and Washington DC.

In the financial year 2011, DLR's budget for research and operations amounted to roughly 796 million Euro, of which about 55 percent came from competitively allocated third-party funds. The Center also administers the space budget for the German government, which totalled some 1147 million Euro. Of this total, 65 percent covered the German contribution towards the European Space Agency, ESA, 21 percent went towards the German space programme and 14 percent was used to fund DLR's aerospace research. The funding from the DLR Project Management Agency amounted to 1060 million Euro, while that of the Project Management Agency for Aeronautics totalled 164 million Euro.

DLR's productivity is made possible by its highly trained and motivated employees, who are able to continuously develop themselves professionally at DLR. Equal opportunity is a key mantra at DLR. With flexitime, part-time employment and specific support measures, a good balance between career and family is ensured.



DLR Braunschweig

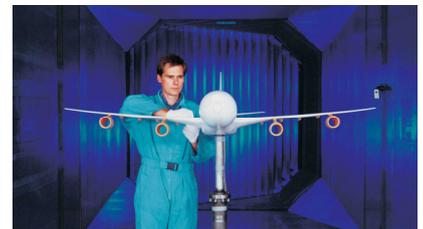
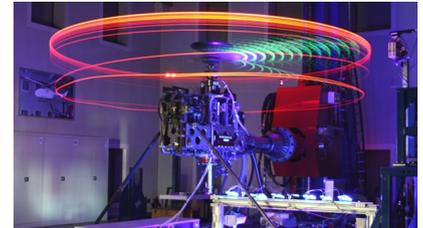
The main activities of the German Aerospace Center (DLR) joint sites of Braunschweig and Göttingen are aviation and transportation research. Located at the Research Airport in Braunschweig, DLR continues the tradition of the Deutsche Forschungsanstalt für Luft- und Raumfahrt (DFL), founded in 1936, and employs there about 1000 highly-qualified scientists and engineers.

Unique high-performance facilities, research flight and automotive vehicles, flight simulators, air traffic simulation facilities, wind tunnels in the European DNW foundation (German-Dutch Wind Tunnels), mobile rotor test stands and test stands for material and noise tests are available for experimental research.

Test equipment for sophisticated, experimental technology is designed and manufactured in the modern workshops of SHT – Systemhaus Technik. An in-house office of airworthiness surveys the safe operations of the complex experimental installations in fixed wing aircraft and helicopters of the Braunschweig Research flight department. The certified Rail SiTe[®] provides DLR with the competence to support industry in the certification of their rail system components. Furthermore DLR consults users in the application of composite fiber technologies and new materials in industry.

Focal areas of research are:

- Improvement of the dynamic aircraft behaviour and the operational safety of aircraft and helicopters
- Increase in the performance, safety and reliability of air, road and railway traffic
- Intelligent assistance systems for human operators of airborne and ground transportation systems
- Development of design principles and tools for low-drag and quiet air vehicles
- Development and realization of adaptable, damage-tolerant and cost-efficient high-performance structures for aerospace and ground transportation applications



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The symposium theme is "Defeating Murphy's Law in Flight Test". Papers reflecting the symposium theme will be favoured in the selection of papers.



Volcano Ash Hunter: Measurement flight mission flying over Eyjafjalla with DLR's Falcon 20E

In flight test sometimes the most unlikely things happen. Who would have known that a simple series of pitot static tests would have to be stalled twice in two consecutive years because of volcano eruptions and that the pitot statics aircraft – DLR's Falcon 20 - would be known today as Volcano Ash Hunter. But it does not require a volcano - sometimes it's just the regular stuff like the weather, technical problems, the technician who goes skiing and breaks his leg the day before the campaign or request for visit forms which magically vanish. It can be the high risk testing which works out just fine and at the very moment when everyone thinks you're done something completely unrelated to the test goes wrong.

For flight testers, "lesson's learned" are the most important outcome of flight test next to its primary test objective. It helps us to make the next test even safer than the one before or to make it happen at all in spite of Murphy's law. We'd like to hear your flight test stories, what you learned and how you safely prepare for the unknown and unexpected that always awaits us.

Papers

Deadline for abstracts: 3rd March 2013
Notification to authors before: 3rd April 2013
Deadline for submission of papers: 28th April 2013

Registration

Registration must be completed in advance. The online registration form can be accessed via the SFTE website www.sfte-ec.org. An early bird rebate of 50,00 € is granted for a registration before 6th May 2013.

Programme

Tuesday, 11 June 2013	09.00 - 17.00	Technical Sessions
	17.30 - 21.00	Evening Activity ("Phaeno")
Wednesday, 12 June 2013	09.00 - 17.00	Technical Sessions
	18.00 - 22.00	Symposium dinner at Al Duomo
Thursday, 13 June 2013	09.00 - 12.30	Technical Sessions
	14.00 - 18.00	Technical Tour

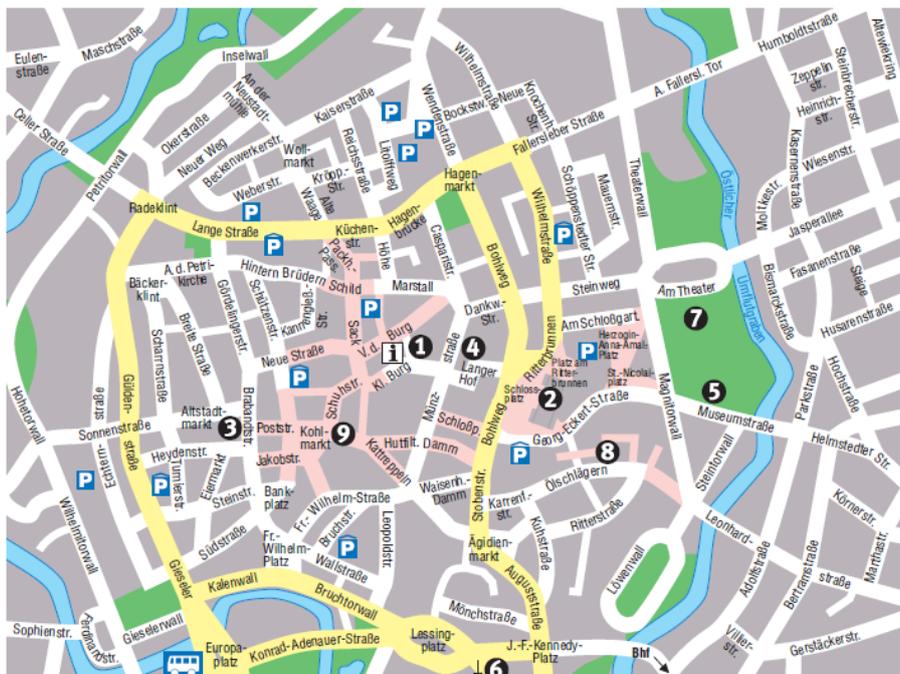
City of Braunschweig

Both the traditional and the modern are united in Braunschweig: The Lion City's attractions range from buildings dating back to Braunschweig's founding years to the modern Happy RIZZI House, an architecturally unusual building. The delightful castle square (Burgplatz) framed by the cathedral, Dankwarderode Castle, the Landesmuseum and centuries-old half-timbered buildings is unparalleled as far as culture and history are concerned. The city centre which is surrounded by the river Oker invites you to take a leisurely stroll and to maybe stay a while in one of its cosy cafés and fine restaurants.

Braunschweig (Brunswick), the city of Henry the Lion, was given its distinctive character in the course of the centuries through the influence of the family of Guelph, the Hanseatic League, as well as of many bright minds such as Lessing, Gauß and Spohr. Today, Braunschweig is a beautiful shopping city, lively cultural city and the centre of one of Europe's most research-intensive regions. The historic ensembles around the Burglöwe monument as well as the residential palace, contrasting with modern buildings and passages, characterise the townscape with its bustling squares. Perched in splendour on top of the residential palace, the largest quadriga in Europe with its visitor's platform allows a view of the city centre surrounded by the river Oker. Along the former city fortifications, villas and parks line the Oker. Raft trips on the river provide you with a very special panorama of the city. Braunschweig's museums are among the leading ones in Europe, presenting significant art treasures and collections. The city's wide range of cultural offers includes music, film and theatre festivals, top-rate exhibitions as well as numerous open-air events. Braunschweig is also an ideal starting point for outings to a remarkable cultural region. The Harz mountains and the Lüneburg Heath can also be reached in just half an hour by car.



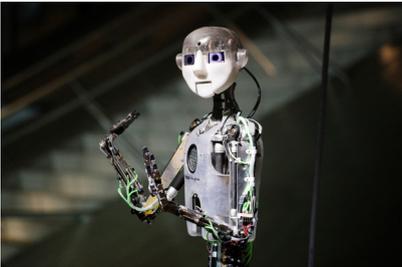
Residential Palace and Happy RIZZI House



9 Sights

- 1 Burgplatz with Burglöwe monument, Dankwarderode Castle and St. Blasii Cathedral
- 2 Residenzschloss (residential palace) with quadriga
- 3 Altstadtmarkt (historic market square) and Jakob-Kemenate
- 4 Rathaus (city hall) in neo-Gothic style
- 5 Herzog Anton Ulrich Museum and Staatstheater
- 6 Schloss Richmond (Richmond Palace)
- 7 Okerumflut (city moat) with museum park
- 8 Magniviertel with Municipal Museum and Happy Rizzi Haus
- 9 Kohlmarkt (historic coal market)

Phæno Wolfsburg



Discovering the world in phæno: touching, trying things out, finding astonishment, playing, exploring, discovering, and above all: unravelling the frequently mysterious natural-scientific phenomena of everyday life on one's own initiative. Over 350 phenomena can be marvelled at in phæno.

Have you ever...

- ... steered a car with the accelerator pedal?
- ... formed a mushroom out of mist?
- ... seen an electromagnetic hedgehog?
- ... experienced the world's most fiery tornado?



Two Visitor Labs, the Science Theatre and the Ideas Forum give visitors even more opportunities to see, hear, touch, smell and feel. A varied programme of events consisting of workshops and discovery tours conveys content that furthers networked thinking and action.

The phæno building in the centre of Wolfsburg looks like a spacecraft that has just landed. Resting on its ten cone-shaped "feet", the concrete structure spanning 154 metres seems to almost hover in the air.



Designed by the Iraq-born architect Zaha Hadid, the imposing structure sits enthroned high above street-level. The exhibition space, resting on conic supports and sublimely illuminated, emerged as the victorious project from an international competition staged in 2000. The London-based architect has devised a home for phæno that breaks with many conventions and that liberates the area beneath it as a kind of urban space in the form of a covered artificial landscape with gently undulating hills and valleys. Since November 2005 now, the futuristic apparition has been raising eyebrows in amazement and making eyes gleam with awe among passers-by.

The inside of phæno seems to be from another world as well: a free-flowing space framed by cast concrete. Without any right angles. Entwined over several levels. An ideal location for adventurers and discoverers. And a fantastic achievement from the London-based architect Zaha Hadid.

Phæno homepage: www.phaeno.de



Symposium Dinner

The Symposium Dinner will be in the Restaurant Al Duomo at the Castle Square in the city center. If the weather allows, the reception will be outside in the breathtaking atmosphere of Castle Dankwarderode and the Braunschweig Lion Statue.

The Castle Square (Burgplatz) is comprised of a group of buildings of great historical and cultural importance. The seat of the dukedom of Braunschweig has been located here since the 9th century. Duke Henry the Lion developed the Burgplatz area into a centre of power during the 12th century. The Burgplatz, which includes the castle, the cathedral, the Classicistic Vieweg House and other beautiful half-timbered structures still shows evidence of its medieval ground plan. The statue of the Lion of the Castle (Burglöwe) is located at the centre of the square.



The restaurant's contact data is:

Al Duomo
Ruhfäutchenplatz 1
38100 Braunschweig
Tel.: +49 (0) 531 / 12 00-490
www.alduomo.de



Accommodation

Attendees of the 24th SFTE EC symposium should arrange their own hotel reservations. Please make an early reservation because hotels in Braunschweig are regularly fully booked! We recommend you stay at the city center. From the city centre it is about 30 minutes with public transportation to the DLR site.

Ask for our special room rate, keyword "SFTE EC Symposium". Double bedroom on request and according to availability.

Hotel Ritter St. Georg

Alte Knochenhauerstr. 12
38100 Braunschweig

Email: info@ritterstgeorg-bs.de
HP: www.ritterstgeorg-bs.de

Single bedroom: 75 €

Hotel Deutsches Haus Braunschweig

Ruhfäutchenplatz 1
38100 Braunschweig

Email: resi@deutscheshaus24.de
HP: www.deutscheshaus24.de

Single bedroom: 104 €

Frühlingshotel Braunschweig

Bankplatz 7
38100 Braunschweig

Email: info@fruehlingshotel.de
HP: www.fruehlingshotel.de

(no special room rate,
single bedroom approx. 70 €)

Mercure Hotel Atrium Braunschweig

Berliner Platz 3
38102 Braunschweig

Email: H0871@accor.com
HP: www.mercure.com

Single bedroom: 99 €

Mövenpick Hotel Braunschweig

Jöddenstrasse 3
38100 Braunschweig

Email: hotel.braunschweig@moevenpick.com
HP: www.moevenpick-hotels.com

Single bedroom: 132 €

Best Western Hotel StadtPalais

Hinter Liebfrauen 1a
38100 Braunschweig

E-Mail: info@palais-braunschweig.bestwestern.de
HP: www.bestwestern.de

Single bedroom: 116 €



How to Find Us

DLR's Braunschweig facility is located northeast of Braunschweig city center between airport and the A2 autobahn.



Address

DLR Braunschweig
Lilienthalplatz 7
38108 Braunschweig

Arrival by train and bus

Please take the bus route 436 from the central railway station or bus route 413 from the city center in the direction 'Flughafen' until bus stop 'DLR'.

Arrival by car

From the A2 autobahn, take the exit 'Braunschweig-Flughafen' and follow the signs to DLR.

Arrival by air

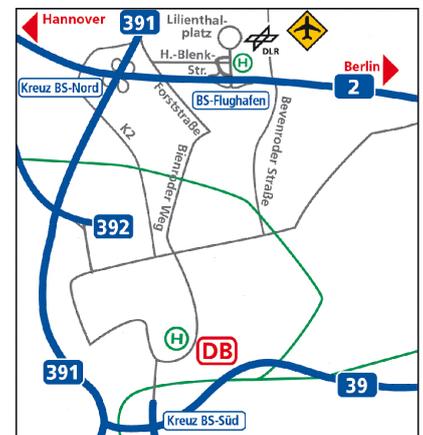
Braunschweig airport is nearby but the nearest major airport is Hanover. From Hanover airport it takes approximately 45 minutes by car to get to DLR Braunschweig or about two hours by public transport.

Useful web addresses

www.sfte-ec.org	official website of SFTE EC
www.dlr.de	official DLR website
www.braunschweig.de	official website of Braunschweig

If you have any questions, please contact

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Text about Phaeno (pg. 6):
Phaeno gGmbH

Pictures Title picture (pg. 1): original by
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Braunschweig map (pg. 5):
„die_9 Städte in Niedersachsen“

Phaeno pictures (pg. 6, top-bottom):
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Al Duomo pictures (pg. 7 right):
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Picture of the Residential Palace (pg.
5): Braunschweig Stadtmarketing
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