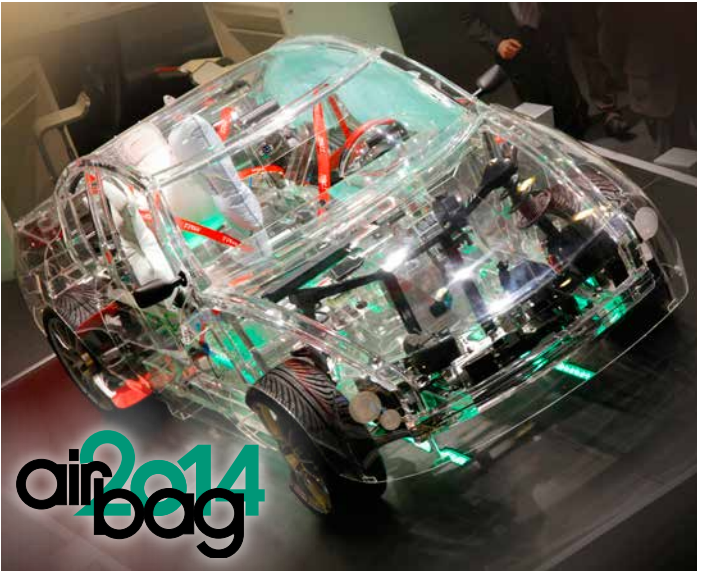




Fraunhofer

ICT



PROGRAM

12th International Symposium
and Exhibition on Sophisticated
Car Occupant Safety Systems

Karlsruhe, Germany
Congress Center, Stadthalle

2014, December 1 – 3

Program Committee

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Karlsruhe Institute of Technology KIT, D

Welcome

Current developments in vehicle safety are increasingly focused on the synergies between sophisticated car occupant protection systems and intelligent sensor systems, with the aim of achieving integral safety for all road users. Although the benefits are well known to experts, there is clearly a need for close cooperation between all interested parties.

The 12th AIRBAG 2000+ Symposium in 2014 will again be a meeting place for engineers, scientists, legislators, managers and marketing experts to exchange information, to make and improve contacts, to stimulate further progress and to promote integral safety for road users on an impartial platform.

The Fraunhofer Institute for Chemical Technology ICT is the leading independent research and development facility for airbag technology and testing. As a division of Fraunhofer, Europe's largest organization for applied and contract research, the Fraunhofer ICT offers a unique event for the automobile industry, suppliers and public authorities.

**Welcome again to Karlsruhe, Germany,
and the world of Airbag 2014.**

Dr. Jochen Neutz
Chairman of the Symposium

Registration

Please return the enclosed **registration form**.
You will then receive an **invoice**.

Registration fees (including proceedings, coffee breaks, lunch, evening receptions), depending on date of arrival of registration form at Fraunhofer ICT

*** up to November 5, 2014**

EURO 950,- (incl. 19 % VAT)

*** up to November 24, 2014**

EURO 1.050,- (incl. 19 % VAT)

Participation cannot be guaranteed for registrations arriving after November 24, 2014. A fee of EURO 500,- will be charged for cancellations after November 24, 2014. No-shows will be charged the complete fee.

Online registration:

www.ict.fraunhofer.de/airbag2014

Accommodation

will be managed by **HORE Hotel Reservation**,

Bockstalstraße 20, 76327 Pfinztal, Germany

Phone +49 (0) 7240 / 9445-850

Telefax +49 (0) 7240 / 9445-852

E-mail HHRUdoHamm@t-online.de

An application form is enclosed.

Online reservation:

www.h-h-reservation.de/airbag2014.html

Conference Office

is located in the **foyer of the Stadthalle** and may be reached from **December 1 to December 3** by

Phone +49 (0) 721 / 3720-4443

or +49 (0) 721 / 3720-4441

Fax +49 (0) 721 / 3720-5950

**Check In /
Welcome Reception**

Please check in at the conference office on **Monday, December 1** between 13.00 and 20.00 h. All participants are cordially invited to the **Welcome Reception** in the foyer of the Stadthalle on **Monday, December 1, 18.00 – 21.00 h**.

Conference Languages

English, German – **Simultaneous Interpretation**

Proceedings

One copy of the proceedings is **included** in the registration fee. Additional copies EURO 100,-.

Autoliv Inc.
Stockholm, SE

BS&B Safety Systems GmbH
Grosswallstadt, D

Continental Automotive GmbH
Regensburg, D

Daicel Safety Systems Europe
Żarów, PL

Daimler AG
Sindelfingen, D

Delphi Connection Systems
Guyancourt, F

Electrovac Hacht & Huber GmbH
Salzweg, D

**Fraunhofer-Institut für
Chemische Technologie ICT**
Pfinztal, D

**Jinzhou Jinheng Automotive
Safety System Co., Ltd.**
Jinzhou, PRC

**Hirtenberger Automotive
Safety GmbH & Co KG**
Hirtenberg, A

IEE S.A.
Contern, LU

Indet Safety Systems a.s.
Vsetin, CZ

**Invista S.á.r.l. | Performance
Materials**
Kennesaw, USA

iSi Automotive Berlin GmbH
Berlin, D

**Key Safety Systems
Deutschland GmbH**
Raunheim, D

Quadrant CMS NV
Tielt, B

Robert Bosch GmbH
Stuttgart, D

SCHOTT AG
Landshut, D

Schreiner Group, Pro Tech
Oberschleissheim, D

Takata AG
Aschaffenburg, D

TRW Automotive GmbH
Alfdorf, D

**Valient Automotive
Market Research**
Rochester, NY, USA

voestalpine Rotec GmbH & Co. KG
Annweiler, D

Monday, December 1

11.30 – 13.00

Press meeting (registered journalists only)

Workshops (in GERMAN only)begrenzte Teilnehmerzahl, Anmeldung formlos
an manuela.wolff@ict.fraunhofer.deTeilnahmegebühr: EURO 119,- inkl. MWSt.
Frei für Teilnehmer des airbag-Symposiums

13.30 – 18.00

**WS1 Workshop "Retten ohne Risiko!" für
Rettungskräfte mit "Airbag-Update",
Einsatzberichten und Erfahrungsaustausch**
POC: Rolf.Erbe@berliner-feuerwehr.de

14.30 – 18.00

**WS2 Expertenmeeting zum Status „Berliner
Erklärung des VDI zur Fahrzeugsicherheit“**
Das Programm finden Sie unter:
www.ict.fraunhofer.de/airbagWS2

18.00 – 21.00

Welcome Reception for all participants
(Symposium, Workshop, Exhibition)

Tuesday, December 2

09.00 – 09.15

WELCOME AND OPENING
J. Neutz
Chairman of the Symposium
B. Hefer
Moderator of "airbag 2014"
Fraunhofer ICT, Pfinztal, D

09.15 – 09.30

GREETING ADRESSES

09.30 – 10.00

**V1 Honorary Lecture –
History and Future of Safety Systems
ELECTRONIC SENSOR SYSTEMS FOR
OCCUPANT SAFETY – SOME CRAZY IDEAS
OF THE PAST ARE TODAY'S STANDARD**
H. Spies, M. Spies
Ingenieurbüro Spies, Hohenwart, D

10.00 – 10.30

Coffee Break

1st Session: Global Safety Trends and Requirements

Session Responsible: Adam McNeill
BMW AG, München, D

- | | | |
|---------------|-----------|---|
| 10.30 – 10.55 | V2 | AN UPDATE ON THE EURO NCAP SAFETY RATINGS PROGRAM
M. van Ratingen
Euro NCAP, Brussels, B |
| 10.55 – 11.20 | V3 | OCCUPANT PROTECTION BY SIDE AIRBAGS IN VEHICLE-TO-VEHICLE COLLISIONS
A. Malczyk
German Insurance Association, Berlin, D |
| 11.20 – 12.30 | | POSTER SESSION
Session Chair:
Hans Spies
Ingenieurbüro Spies, Hohenwart, D
Karl-Friedrich Ziegahn
KIT, Karlsruhe, D |
| 12.30 – 14.00 | | Lunch Break |

2nd Session: Integrated Safety I

Session Responsible: Dirk Mentgen
Robert Bosch GmbH, Stuttgart, D

- | | | |
|---------------|-----------|--|
| 14.00 – 14.25 | V4 | COMPLEX WORLD SAFETY
A. Axelson, P. Harda, P. Nilsson, A. Wogel et al.
Volvo Car Corporation, Göteborg, SE |
| 14.25 – 14.50 | V5 | SAFETY 2.0 – A DIMENSION OF VEHICLE SAFETY BASED ON THE EXCHANGE OF SAFETY CRITICAL INFORMATION
G. Jürgens, B. Klumpp, M. Feser, K. Rink
Continental Automotive GmbH, Regensburg, D |
| 14.50 – 15.15 | V6 | A STOCHASTIC APPROACH FOR PROSPECTIVE SAFETY PERFORMANCE ASSESSMENT IN ACTIVE SAFETY SYSTEMS
K. Kompass
BMW Group, München, D |

15.15 – 15.45

Coffee Break**3rd Session: New Safety Applications I**

Session Responsible: Dirk Schultz

TRW Automotive GmbH, Alfdorf, D

15.45 – 16.10

V7**FAR SIDE PROTECTION**

H. Rist

TAKATA AG, Aschaffenburg, D

16.10 – 16.35

V8**INNOVATIVE COCKPIT STYLE WITH HIGH LEVEL OF SAFETY: THE AIRBAG IN ROOF TECHNOLOGY**

R. Zeitouni

PSA Peugeot Citroen, Velizy Villacoublay, F

16.35 – 17.00

V9**ADVANCED RESTRAINT SYSTEMS TO PROTECT REAR SEAT OCCUPANTS IN FRONTAL IMPACTS**

L. Zink, M. Stegmeier, J. Debler

TRW Automotive GmbH, Alfdorf, D

17.00 – 17.30

Awards

17.30 – 21.30

Evening Reception

(for all participants; snacks and drinks in both foyers of the Stadthalle)

Hotelpreise/Hotel rates

A ****	Novotel Kongress	EZ/SGL	180,--	Euro	DZ/DBL	225,--	Euro	0,0 km
B ****	Renaissance	EZ/SGL	148,--	Euro	DZ/DBL	167,--	Euro	0,3 km
C ****	Schlosshotel Classic	EZ/SGL	135,--	Euro	DZ/DBL	165,--	Euro	0,5 km
D1 ****	Leonardo Komfort	EZ/SGL	164,--	Euro	DZ/DBL	174,--	Euro	0,2 km
D2 ****	Leonardo Standard	EZ/SGL	149,--	Euro	DZ/DBL	159,--	Euro	0,2 km
E ****	Kaiserhof	EZ/SGL	105,--	Euro	DZ/DBL	125,--	Euro	0,2 km
F ***	Avisa	EZ/SGL	89,--	Euro	DZ/DBL	124,--	Euro	0,5 km
G ***	Royal	EZ/SGL	90,--	Euro	DZ/DBL	120,--	Euro	0,3 km
H1 ***	Ibis 01.-02.12.2014	EZ/SGL	119,--	Euro	DZ/DBL	129,--	Euro	0,5 km
H2 ***	Ibis 02.-04.12.2014	EZ/SGL	129,--	Euro	DZ/DBL	139,--	Euro	0,5 km

Entfernung zur Messe /
Distance to exhibition

**Online-Reservierung: www.h-h-reservation.de/airbag2014.html
online reservation: www.h-h-reservation.de/airbag2014.html**

Zimmerreservierung Accommodation

Phone 0049-(7240) 9445-8520 Fax 0049-(7240) 9445-8520

Name / Surname _____

Vorname / Christian Name _____

Straße / Street _____ Nr./ No. _____

PLZ / Zip Code _____ Ort / Address _____

Land / Country _____

Fax _____

Telefon / Phone _____

E-Mail _____

Datum / Date _____ Unterschrift / Signature _____

12th International Symposium & Exhibition on Sophisticated Car Occupant Safety Systems, 2014 December 1st-3rd, Karlsruhe

Bitte reservieren Sie Hotel / Please reserve Hotel

Ankunft Arrival Abreise Time of Departure Ankunftszeit Time of Arrival

Anzahl der Zimmer/ No. of Rooms EZ (Einzelzimmer) SGL (single room) DZ (Doppelzimmer) DBL (double room)

Bitte reservieren Sie Hotel / Please reserve Hotel

Alle Zimmer mit Bad/Dusche/WC, inkl. Frühstück. / All rooms with bath/shower/WC, incl. breakfast.

Falls die gewünschte Hotelkategorie nicht mehr verfügbar ist, reservieren Sie bitte die Kategorie:

If accommodation not available in desired category, please reserve category:

Kreditkarte	Kreditkartennummer zur Garantie	Gültigkeit:
Creditcard	Credit Card No.:	Expiry Date of Credit Card

Anmeldung / Registration form

12th International Symposium and Exhibition
on Sophisticated Car Occupant Safety Systems

December 1 – 3, 2014
Karlsruhe, Germany

Company / Authority / Complete Address

Last name

First name

Title / Position

I will pay the registration fee upon
receipt of the invoice.

It is agreed that pictures taken during
this event may be published.

Participation (please tick)

Welcome Reception*

Monday, December 1st, 6.00 p.m.

* included in the registration fee

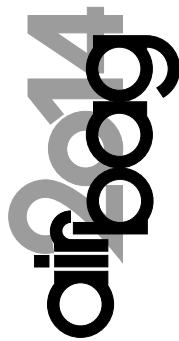
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Chemische Technologie ICT
Attn. Manuela Wolff
P. O. Box 12 40
76138 Pfinztal
GERMANY**

**MUST BE PUT
INSIDE ENVELOPE**

Wednesday, December 3

4th Session: Sensor Systems and ElectronicsSession Responsible: Jörg Szilagyí
Autoliv B.V. & Co. KG, Dachau, D

- 8.00 – 8.25 **V10 LASER-RANGE IMAGES ENHANCE PASSENGER-SAFETY BY AUTONOMOUS MANEUVERS OF CARS FOR COLLISION AVOIDANCE**
M. Spies, H. Spies
Ingenieurbüro Spies, Hohenwart, D
- 8.25 – 8.50 **V11 DRUNK, DROWSY AND DISTRACTED DRIVER MONITORING**
O. Boström, J. Karlsson, B. Nilsson, N. Gustafsson,
H. Petterson
Autoliv Research, Vargarda, SE

5th Session: SimulationSession Responsible: Michael Meisel
AUDI AG, Ingolstadt, D

- 8.50 – 9.15 **V12 EFFECTIVENESS ANALYSIS AND VIRTUAL DESIGN OF INTEGRATED SAFETY SYSTEMS ILLUSTRATED USING THE EXAMPLE OF INTEGRATED PEDESTRIAN AND OCCUPANT PROTECTION**
I. Ferenczi
BMW AG, München, D
P. Wimmer
Virtual Vehicle Research Center, Graz, A
M. Unger
IAT mbH, Berlin, D
- 9.15 – 9.40 **V13 USING SIMULATION FOR DETERMINING THE VOLUME OF AIRBAGS**
D. Ruckdeschel
BMW AG, München, D
A. Hirth
Daimler AG, Sindelfingen, D
S. Weber
Audi AG, Ingolstadt, D
R. Remensperger
Porsche AG, Weissach, D
H. Dörnhoff
Volkswagen AG, Wolfsburg, D
- 9.40 – 10.10 **Coffee Break**

6th Session: Integrated Safety II

Session Responsible: Michael Fehring
 Daimler AG, Sindelfingen, D

- | | | |
|---------------|------------|---|
| 10.10 – 10.35 | V14 | <p>PRE-SAFE® IMPULSE SIDE – A PREVENTIVE PRE-IMPACTING RESTRAINT SYSTEM
 M. Paurevic, R. Schöneburg, J. Richert,
 R. Bogenrieder
 Daimler AG, Sindelfingen, D</p> |
| 10.35 – 11.00 | V15 | <p>INTEGRATED SAFETY SOLUTIONS AT CROSSING SCENARIOS
 F. Kästner, V. Hofsäß, A. Köhler, S. Knoop,
 H. Freienstein
 Robert Bosch GmbH, Heilbronn, D</p> |
| 11.00 – 11.25 | V16 | <p>THE INTEGRATED SAFETY CONCEPT OF THE ULTRA-COMPACT VEHICLE VISIO.M
 T. Unselt
 Daimler AG, Sindelfingen, D
 J. Unger
 Autoliv, Dachau, D
 L. Quedenbaum
 IAV, D
 T. Hierlinger
 TU München, D</p> |
| 11.25 – 13.00 | | Lunch Break |

7th Session: Testing and Validation

Session Responsible: Heiko Ruck
 Takata AG, Aschaffenburg, D

- | | | |
|---------------|------------|---|
| 13.00 – 13.25 | V17 | <p>DESCRIPTION OF AN IP COVER SIMULATOR (IPCS) TO BE USED FOR PASSENGER AIRBAG TESTING
 U. Kippelt, A. Maier, J. Büttner
 TRW OSS GmbH, Alfdorf, D
 R. Mirones
 TRW Spain, Boecillo, E</p> |
| 13.25 – 13.50 | V18 | <p>THE EASYSLED – A COMPONENT LEVEL TEST AS AN ALTERNATIVE TO A RESTRAINT SYSTEM TEST
 F. Wollny
 Takata AG, Berlin, D</p> |

13.50 – 14.15 **V19 DYNAMIC TESTING METHOD FOR DUMMY-LIKE LOADING OF FRONTAL AIRBAGS**
 A. Winkler, F. Fürst
 AUDI AG, Ingolstadt, D

14.15 – 14.45 **Coffee Break**

8th Session: New Safety Applications II

Session Responsible: Jens Bosch
 Volkswagen AG, Wolfsburg, D

14.45 – 15.10 **V20 GAS CONTROL VALVE FOR ENHANCED ADAPTIVITY OF AIRBAG INFLATORS**
 F. Kästner, K. Heyer, U. Iben, J. Kolatschek
 Robert Bosch GmbH, Heilbronn, D

15.10 – 15.35 **V21 APGS – THE DUAL STAGE VERSION OF AUTOLIV'S ENVIRONMENTAL FRIENDLY INFLATOR**
 T. Aderum, E. Emlind
 Autoliv Sverige AB, Vargarda, SE

15.35 – 16.00 **V22 ACTIVE LOAD PATH WITH VARIABLE LOAD LEVELS – FUNCTIONALITY SHOWN WITH SUBSYSTEM TESTING AND CAE**
 F. Hoiss
 BMW AG, München, D

9th Session: Beyond automotive Applications

Session Responsible: Jochen Neutz
 Fraunhofer ICT, Pfinztal, D

16.00 – 16.25 **V23 INTELLIGENT CLOTHING: MOVING AIR BAGS FROM CARS TO HUMANS**
 V. Cafaggi, M. Forestan, M. Bencini
 Dainese S.p.A., Vicenza, I

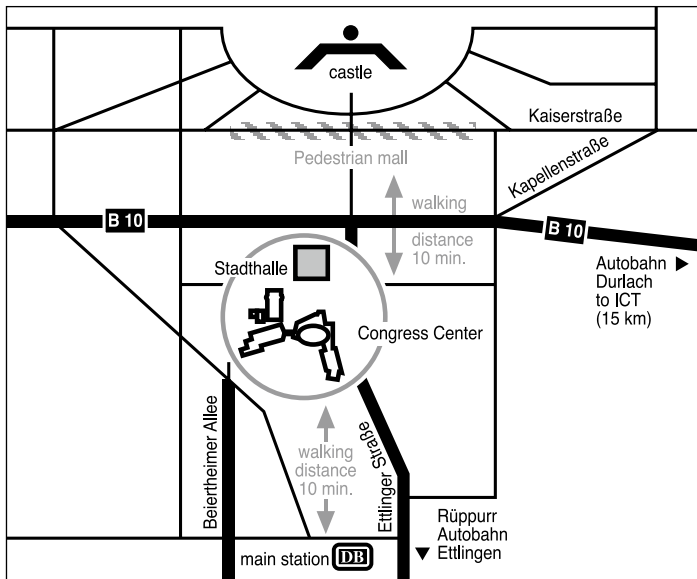
16.25 – 16.50 **V24 HÖVDING – AIRBAG FOR CYCLISTS**
 A. Haupt
 Hövding Sverige AB, Malmö, SE

16.50 **Closing Remarks**

Posters will be presented in the Foyer of the Conference Hall during the Symposium. A special **POSTER SESSION** will be held on Tuesday, December 2, 11.20 - 12.30 h.

- P25 ADVANCES IN AIRBAG FABRICS WITH FUNCTIONAL SILICONE COATINGS**
P. Defaux, M. Slaviero, D. Djian
Bluestar Silicones, Saint Fons, F
- P26 CHANGING AIRBAG POLYMERS: CONFORMANCE TO SPECIFICATIONS IS NOT THE SAME AS CONTROL OF CHANGE**
R. Walsh
Invista S.a.r.l., Kennesaw, USA
- P27 SPECIFIC INSPECTION OF THE SURFACE APPEARANCE OF AIR BAG FABRICS FOR ADVANCED QUALITY CONTROL**
M. Vogelbacher
KIT, Karlsruhe, D
H. Schulte, J. Beyerer, Fraunhofer IOSB, Karlsruhe, D
E. Heber
GST, Maulburg, D
- P28 METHODOLOGY TO PREDICT AND VALIDATE ACCELERATION BASED CRASH SIGNALS IN THE EARLY PHASE OF THE AUTOMOTIVE PRODUCT DESIGN CYCLE**
S. Nößner, G.A. D'Addetta, J. Kolatschek
Robert Bosch GmbH, Schwieberdingen, D
M. Kröger
University of Technology Freiberg, D
- P29 ADVANCED MIXED-SIGNAL EMULATION FOR COMPLEX AUTOMOTIVE ICS**
T. Nguyen, D. Hammerschmidt
Infineon Technologies Austria, Villach, A
A.-D. Basa
Infineon Technologies Romania, Bucharest, RO
T. Dittfeld
Infineon Technologies, München, D
- P30 NEW DEVELOPMENT IN AUTOLIV SQUIB DRIVER VALIDATION PROCESS**
V. Colarossi
Autoliv Electronics, Southfield MI, USA

- P31 AUTOMATED OBJECT LABELLING FOR ADVANCED DRIVER ASSISTANCE SYSTEMS USING A CAMERA- AND LIDAR-SYSTEM**
D. Kirchhöfer, C. Uhlmann, T. Brandmeier
Technische Hochschule Ingolstadt, D
L. Beste
ADC Automotive Distance Control Systems GmbH, D
B. Reiß
IPG Automotive GmbH, D
- P32 FE MODEL BASED ANALYSIS OF THE DYNAMIC BEHAVIOUR OF THE INTERFACE DRIVER AIRBAG AND STEERING WHEEL**
A. Wuestendoerfer
BMW AG, München, D
- P33 RAPID DEPLOYABLE BALLISTIC BARRIERS BASED ON AIRBAG SYSTEMS**
R. Roussel, J. Neutz
Fraunhofer ICT, Pfinztal, D
- P34 THUMS USER COMMUNITY – BACKGROUND, MOTIVATION AND STATUS OF THE COLLABORATIVE TUC**
C. Mayer
Daimler AG, Sindelfingen, D
- P35 INKJET PRINTING TECHNOLOGY FOR IGNITION ELEMENTS**
U. Weiß
Consulting Office Dr. Weiß, Jena, D
F. Becker, S. Schulze, D. Weise, R.R. Baumann
Chemnitz University of Technology, Chemnitz, D
- P36 TARGET ZERO**
A. Charles
Ace Consultancy, Winsford, GB
- P37 ENHANCED REACTIVITY OF B/BACRO₄ THROUGH WET BALL MILLING**
Junlong Yang, Tiantian Xu, Hongtao Yang, Yi Cheng
Nanjing University of Science and Technology, Nanjing, PRC
- P38 INVESTIGATION ON THE COMBUSTION PROPERTIES OF 5-AT/BCN GAS-GENERATING AGENTS**
Tiantian Xu, Hongtao Yang, Junlong Yang, Yi Cheng
Nanjing University of Science and Technology, Nanjing, PRC

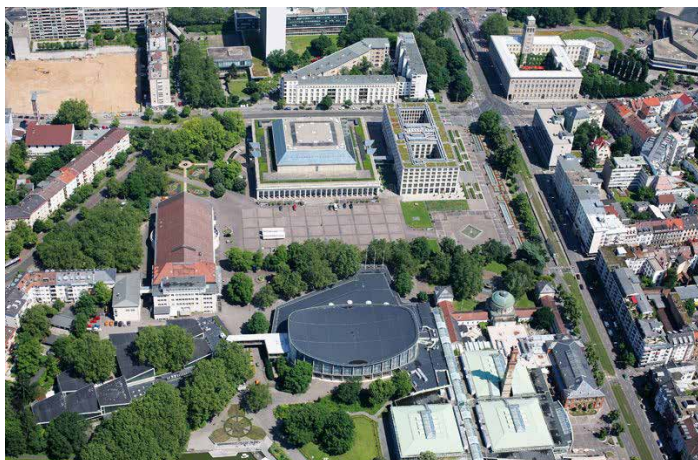
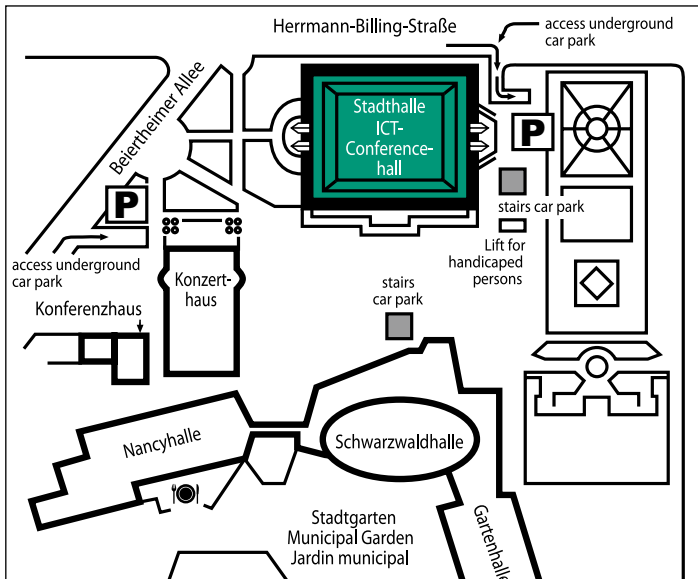


Karlsruhe is located 120 km south of Frankfurt (Main)/Frankfurt International Airport just beside the Autobahn A5, and is also connected to Frankfurt via the Intercity Express Train ICE.

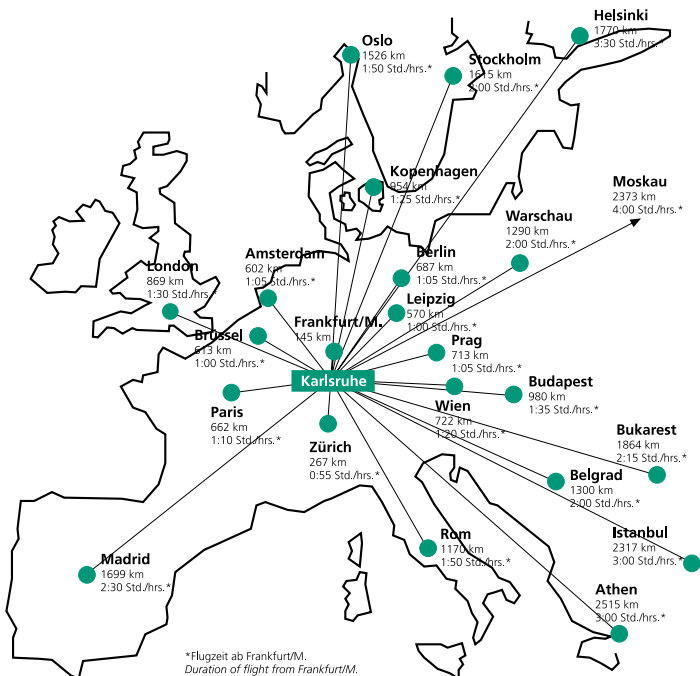
Additional airports are:

Strasbourg (F) (approx. 100 km) and Stuttgart (D) (approx. 90 km)

Address: Festplatz 9
76137 Karlsruhe
Germany



Karlsruhe is located approximately 1 hour south of Frankfurt Airport via motorway/highway (Autobahn) or express train (IC or ICE).



CONFERENCE MANAGEMENT

Fraunhofer-Institut für
Chemische Technologie ICT
Attn. Manuela Wolff
P.O. Box 12 40
76318 Pfinztal (Berghausen)
Germany

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or +49 (0) 721 / 4640-0
Fax +49 (0) 721 / 4640-120
E-mail manuela.wolff@ict.fraunhofer.de

EXHIBITION MANAGEMENT

Vera Keplinger
Phone +49 (0) 721 / 4640-511
E-mail vera.keplinger@ict.fraunhofer.de