

**Social Evening**

6.11.2019, 7:00 p.m (included in registration fee)



The Hilton Hotel is located in the heart of the historic city of Dresden surrounded by the Procession of Princes, Brühl's Terrace and the Church of Our Lady. In the ballroom of the

hotel we will round off the first conference day. Have a nice evening in a pleasant atmosphere with interesting talks, culinary delights and musical accompaniment.

**Manufacture of pralines III**

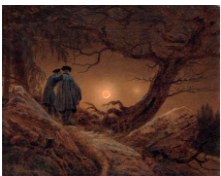
6.11.2019, 10:30 a.m. - 2:30 p.m. Price per person 70.00 €



Chocolates are a real treat for all senses and self-made chocolates are very special. You have the opportunity to create these little works of art yourself under the expert guidance of a pâtissier.

**„Moonstruck“ a guided tour through the special exhibition**

7.11.2019, 10:00 a.m. -12:30 a.m. Price per person 26.00 €



C.D. Friedrich „Zwei Männer in der Betrachtung des Mondes“

One of the most famous paintings of the collection of the Albertinum was painted 200 years ago: "Two Men Contemplating the Moon" by Caspar David Friedrich. In honour of this occasion the most beautiful moonlight landscapes from the painting collection are presented in a special exhibition.

Become „moonstruck“ by contemplating the paintings by C. D. Friedrich, C. G. Carus, E. F. Oehme, Ch. F. Gille, J. Ch. Dahl and L. Richter.

**Conference Venue**

Internationales Congress Center Dresden  
Ostrauer 2  
D - 01067 Dresden  
Phone: +49 (0)351 216-0

**Registration Fees**

Industry	1,100.00 €
University/Academy/Authorities	600.00 €
Accompanying person at the social evening - 6.11.2019	60.00 €

For all registrations made until September 18, 2019, we will grant a discount of 50.00 Euro.

The registration fee includes food and refreshments during breaks, as well as lunch, proceedings and the social evening on November 6. 2019.

**Hotels**

**Maritim Dresden \*\*\*\***(conference hotel)  
Devrientstr. 10-12, 01067 Dresden  
Phone: +49 351 216-0

Singleroom Classic	109,00 € (incl. breakfast)
Doubleroom Classic	134,00 € (incl. breakfast)

Singleroom Comfort	124,00 € (incl. breakfast)
Doubleroom Comfort	149,00 € (incl. breakfast)

**L Hotel Dresden Altstadt\*\*\***  
Magdeburger Str. 2, 01067 Dresden  
Phone: +49 351 486 700

Singleroom	70,00 € (incl. breakfast)
Doubleroom	92,00 € (incl. breakfast)

**Organiser**

Research Association For Combustion Engines  
Emission Control Technologies (FAD)  
- registered association -  
Gutzkowstr. 30  
01069 Dresden/Germany



Prof. Dr.-Ing. Gennadi Zikoridse, Executive Director  
Ms. Berit Reuter, Assistant to Executive

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**Program and Scientific Direction**

Prof. Dr.-Ing. G. Zikoridse FAD e.V. /HTW Dresden

**Conference Language**

The conference language is German.  
A simultaneous translation German / English will be offered.

**Exhibition**

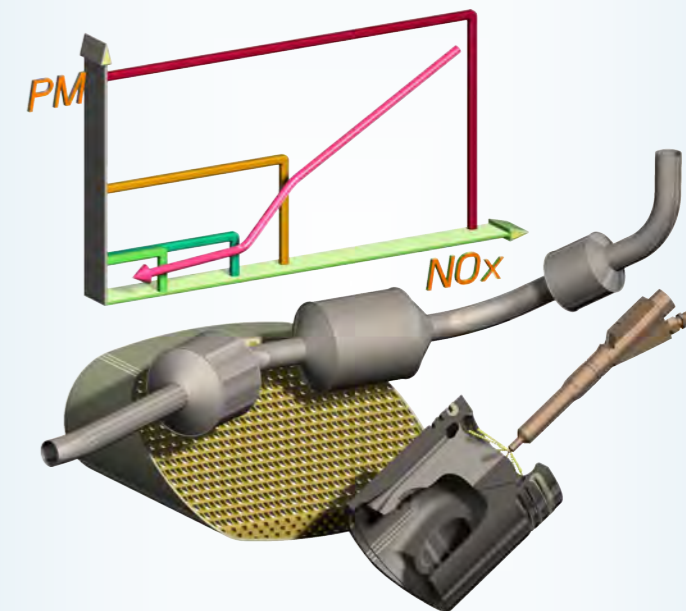
A technical exhibition will be organized at the conference venue. Besides the technical exhibition we offer various possibilities to present your company and products, e. g. advertisements in the conference book and as well as to add brochures and information material to the proceedings. If you are interested in exhibiting at the 17th FAD-Conference, please fill in the application form and send it to the FAD e.V. The application form as well as all relevant information are also available (as PDF for download) online: [www.fad-diesel.de](http://www.fad-diesel.de).

**Application deadline for exhibition 10.10.2019**

**Information on photographing**

During the event we take pictures for the purpose of publication on the conference CD, in information leaflets of FAD e.V., in trade journals and on our website [www.fad-diesel.de](http://www.fad-diesel.de). By your participation in the conference you also consent to the publication of photos showing you. If you do not wish this, please, inform our photographer or our assistants.

Research Association  
For Combustion Engines  
Emission Control Technologies (FAD)  
-registered association-

**17. FAD-Conference****„The Challenge - Exhaust Aftertreatment“**

FAD e.V.  
Gutzkowstr. 30  
D-01069 Dresden/Germany

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<http://www.fad-diesel.de>

**6.11 - 7.11.2019 in Dresden**

9th FAD-Conference - winner of the "dresden congress award" 2012

PREAMBLE

Ladies and gentlemen,

the standard applied to assess the success in the development of the combustion engine and the implementation of the diversification of its energy basis includes the climate protection goals to be achieved and the emission limit values to be met.

There is a broad agreement on the requirements for future mobility concepts in the society. On the one hand they must be CO<sub>2</sub>-neutral and sustainable and, on the other hand, available and suitable for daily use. Ultimately, a mixture of drives according to the mobility needs with a more environmentally friendly energy basis will prevail.

However, there is still need for discussion regarding the implementation of these requirements. FAD e.V. still supports a development without limitation to specific technologies and a fair competition. With regard to the issues mentioned above the conference program of this year is accordingly themed.

Besides the papers, there will be again an accompanying technical exhibition during the two conference days to inform the participants about the latest exhaust aftertreatment developments as well as innovations in the field of exhaust gas measurement and test techniques.

We kindly invite you already today to start an exchange of opinions and a discussion with us and we would be pleased to welcome you in November 2019 in Dresden



Prof. Dr.-Ing. Gennadi Zikoridse  
Executive Director FAD e.V.



PROGRAM

Wednesday, 6. November 2019

- 09:00 **Welcom and Opening**  
Prof. Dr.- Ing. G. Zikoridse, FAD e.V./ HTW Dresden, D
- 09:20 **Welcom Address**  
Prof. Dr.-Ing. habil R. Stenzel, Rektor HTW Dresden, D

Session I: Drives for the mobility of the future  
Chairman: Prof. Dr.-Ing. U. Gärtner, Daimler AG, D

- 09:30 **Internal combustion engines for sustainable mobility**  
Prof. Dr.-Ing. G. Zikoridse, HTW Dresden / Argomotive GmbH, D
- 10:00 **What about our breathing air today?**  
Prof. Dr.-Ing. habil A. Dittler, KIT, D
- 10:30 *Coffee break*

Session II: Exhaust aftertreatment solutions for EU Stage V diesel engines  
Chairman: Prof. Dr.-Ing. U. Gärtner, Daimler AG, D

- 11:00 **Exhaust Aftertreatment Solutions for EU Stage V Off Highway Applications**  
Francois Jaussi, Y. Hohl, Liebherr Machines Bulle SA, CH
- 11:30 **Homologation and development of stage V NRMM SCRT Systems and components**  
Dominik Lamotte, T. Kästner, J. Schlencker, K. Schrewe, HJS Emission Technology GmbH & Co. KG, D
- 12:00 **EU Stage V - Mobile machines without restrictions**  
Ulf Spod, Berufgenossenschaft der Bauwirtschaft, D
- 12:30 *Lunch break*

Session III: Contributions from research and development  
Chairman: Prof. Dr.-Ing. habil. A. Dittler, KIT, D

- 14:00 **Development of a CNG Range Extender for an Electrically Driven Refuse Collector**  
Oliver Dingel, A. Kolesnik, R. Mollik, S. Sickert, IAV GmbH, D
- 14:30 **Deposit Formation on Components of the Exhaust Aftertreatment System**  
Kevin Friese, Prof. Dr.-Ing. P. Eilts, TU Braunschweig/ ivb, D

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- 15:00 **Pre-Turbo Exhaust Gas Aftertreatment Systems for future Diesel Powertrains**  
Johannes Hipp, Prof. Dr.-Ing. C. Beidl, TU Darmstadt/ vkm, D;  
H. Bosch, D. Knaf, Friedrich Boysen GmbH & Co. KG, D;  
G. Hohenberg, M. Conin, IVD Deutschland GmbH, D;  
J. Kreuz, U. Goebel, Umicore AG & Co. KG, D

15:30 *Coffee break*

Session IV: Emissions and immissions  
Chairman: Prof. Dr.-Ing. habil. A. Dittler, KIT, D

- 16:00 **Status and trends in reducing of non-exhaust emissions**  
Prof. Dr.-Ing. K. Augsburg, D. Hesse, TU Ilmenau, D
- 16:30 **Emission effects of 0.5% sulfur fuels for 2020**  
T. Mundt, T. Klauke, DNV GL SE, D; T. Tschalamoff, WTZ, D;  
P. Lauer, MAN Energy Solutions SE, D; B. Behrends, Marena, D
- 17:00 **Effectiveness of protective measures against diesel exhaust emission in garages for fire-fighting vehicles and emergency rescue service**  
Dr. R. Hebisch, J. Karmann, U. Pott, BAuA, D
- 19:00 *Social Evening*

Thursday, 7. November 2019

Session V: Energy basis for future mobility  
Chairman: Prof. Dr.-Ing. H. Harndorf, Universität Rostock, D

- 9:00 **Survival Strategy Electromobility - Is E-Mobility the Future?**  
Dr. H. Becker, Institut für Wirtschaftsanalyse und Kommunikation, D
- 9:30 **Synthetic Fuels for the Maritime Energy Transition - Prospects and Challenges**  
Prof. Dr.-Ing. B. Buchholz, Dr. U. Schümann, B. Stengel, K. Schleef, Universität Rostock/ LKV, D
- 10:00 **The HyMethShip Project: Innovative Emission Free Propulsion for maritime applications**  
Dr. N. Wermuth, M. Lackner, D. Barnstedt, Prof. A. Wimmer, LEC GmbH, A
- 10:30 *Coffee break*

Session VI: Quality requirements for fuels  
Chairman: Prof. Dr.-Ing. H. Harndorf, Universität Rostock, D

- 11:00 **Potentail of paraffinic hydrocarbons for high quality fuels and lubricants**  
Dr. J. Karl, Shell Global Solutions, D

PROGRAM

- 11:30 **Information about fuel quality worldwide**  
Dr. J. Schmitt, A. Konzack, Dr. N. Hohlbein, Dr. K. Schaper, Ch. Bofinger, G. Fisch, SGS Germany GmbH, D
- 12:00 **Potentials of a CNG engine compared to a diesel engine for medium-duty vehicles up to 7.5 tons**  
Dr.-Ing. C. Hörhammer, M. Kochs, H. Schneider, ISUZU MOTORS Germany GmbH, D
- 12:30 *Lunch break*

Session VII: Challenge particle measurement  
Chairman: Prof. Dr.-Ing. G. Zikoridse, HTW Dresden/ FAD e.V., D

- 13:30 **Recent and Future Developments in the Legislation and Measurement of Particle Number for Typ Approval, in Service Conformity and RDE**  
Les Hill, N. Baltes, HORIBA Europe GmbH, UK
- 14:00 **New Challenges for Measurement Instrumentation for Particle Number and Particle Size Distribution of emissions from combustion engines**  
Jürgen Spielvogel, O. Bischof, Dr. C. Kykal, Dr.-Ing. T. Krinke, TSI GmbH, D
- 14:30 **Ultrafine particles, soot and nitrogen oxides in ambient air in Saxony**  
Dr.-Ing. G. Löschau, Landesamt für Umwelt, Landwirtschaft und Geologie Sachsen, D

15:00 *Coffee break*

Session VIII: New technologies for emission reduction  
Chairman: Prof. Dr.-Ing. G. Zikoridse, HTW Dresden / FAD e.V., D

- 15:30 **Simulation for the development and optimization of exhaust systems**  
Dr. J. Wurzenberger, AVL List GmbH, A
- 16:00 **Real Driving Emissions of two cars in operation with ethanol blends and CNG**  
Dr. K. Thüneke, G. Huber, Dr.-Ing. P. Emberger, Dr. E. Remmele, Technologie- und Förderzentrum im Kompetenzzentrum für Nachwachsende Rohstoffe (TFZ), D
- 16:30 **Influence of renewable fuels on specific vehicle emissions under real driving conditions (RDE)**  
Martin Kortschack, A. Singer, Dr. O. Schröder, TAC, D  
Prof. Dr. habil. J. Krahl, TH Ostwestfalen-Lippe, D
- 17:00 **Summary and conclusion**  
Prof. Dr.-Ing. G. Zikoridse, FAD e.V./ HTW Dresden, D