

Please register under the following link:

www.dlr.expert/ag-turbo2024

Further information:

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Ameron Köln Hotel Regent
Melatengürtel 15
50933 Köln

We have set up a room contingent until 09 March 2024 under the keyword "AG Turbo" a room contingent has been set up.



18. Status seminar
on 08 and 09 April 2024 at
the Ameron Cologne
Hotel Regent

Turbomachines
for a successful
energy transition

Gefördert durch:



aufgrund eines Beschlusses
des Deutschen Bundestages



The AG TURBO

For over 35 years, AG Turbo has been the German platform for innovative turbomachinery research. It brings together key partners from industry, universities and research centres to jointly conduct pre-competitive, application-oriented collaborative research into turbomachinery. In particular, this includes the turbomachinery that converts energy in steam, gas and combined-cycle power plants as well as those that enable the transport of gases in gas distribution networks or from conversion processes.

The AG Turbo Collaborative research is funded by the Federal Ministry of Economics and Climate Protection (BMWK) and is part of the "Flexible Energy Conversion" research network. It is unique in Europe and is recognised worldwide. It has made a continuous and decisive contribution to achieving the goals set with regard to efficiency, resource conservation and climate protection in power plant processes and has thus also significantly supported the national and international economic strength of the German turbomachinery industry.

In the future, turbomachinery will continue to make an indispensable contribution to the energy transition as core components, particularly with regard to the efficiency and flexibility of power generation and in energy storage processes in combination with renewable energies. AG Turbo is guided by the BMWK's guidelines for implementing the German government's energy concept and is making an important contribution to the energy research programme with all its joint projects.

Monday, 08 April 2024

10:00 am **Welcome and opening**
Dr. Benjamin Witzel
Siemens Energy
Chairman of the AG Turbo

10:15 am **Panel discussion
"Turbomachinery for a
successful energy transition -
focus on Power-to-X"**
Moderation
Dr. Verena Klapdor
Siemens Energy

Stefan Besser
Federal Ministry of Economics and
Climate Protection (BMWK)

Prof. Dr. Klaus Görner
University Duisburg-Essen

Dr. Jens Hannes
RWE Power AG

Dr. Wiebke Lüke
WEW GmbH

12:30 pm **Lunch**

14:15 pm **Meeting I:
Sub-network project Compaction**
Heinz Knittel
MTU Aero Engines

14:30 pm **Miniaturised high-temperature
measurement technology**
Dr. Andreas Zeisberger
MTU Aero Engines

15:00 pm **Efficient H2 compressors for
Power-to-X applications**
Anja Dobat
MAN Energy Solutions

15:30 pm **Real geometry effects in
compressor operation**
Robin Schmidt
Rolls-Royce Deutschland

16:00 pm **End of session**

16:30 pm **General Meeting**

18:00 pm **Reception & Dinner**

Tuesday, 09. April 2024

09:00 am **Meeting II:
Sub-network project Combustion**
Dr. Benjamin Witzel
Siemens Energy

09:15 am **Emission minimisation of
GT burners through AI and auto-
mated data analysis**
Moritz Reumschüssel
Technical University of Berlin

09:45 am **Temperature distribution and
gas species emission measurements
under realistic combustion
conditions using TDLAS**
Dr. André Fischer
Rolls-Royce Deutschland
Dr. Steven Wagner
Technical University of Darmstadt

10:15 am **Investigation of critical operating
conditions for hydrogen flames under
typical gas turbine conditions**
Dr. Oliver Lammel
German Aerospace Centre

10:45 am **Coffee break**

11:15 am **Meeting III:
Sub-network project Cooling**
Dr. Jens Ortmanns
Rolls-Royce Deutschland

11:30 am **Experimental investigation of
platform cooling in a curved guide
vane cascade**
Dr. Christian Landfester
RPTU Kaiserslautern

12:00 am **Thermo-fluid dynamic framework for
the probabilistic design of gas
turbines**
Prof. Robert Krewinkel
MAN Energy Solutions

12:30 pm **Influence of hydrogen-containing
gas mixtures on the embrittlement
tendency of different material
classes**
Sandra Stolz
Ruhr-University Bochum

13:00 pm **Lunch**

14:30 pm **Meeting IV:
Sub-network project Expansion**
Dr. Thomas Polklas
MAN Energy Solutions

14:45 pm **Turbomachinery innovations for
the energy transition:
Aerodynamic-aeroelastic
optimisation of turbine blade
profiles in Power-to-X scenarios**
Dr. Virginie Chenaux
German Aerospace Centre

15:15 pm **Flexibility optimisation of
steam turbine blades**
Dr. Lars Panning-von Scheidt
Leibniz University Hannover

15:45 pm **Thermofluid dynamics in
Casing side chambers with steam
supply and extraction in load-flexible
operation of industrial steam turbines**
Gunter Eschmann
Technical University of Dresden

16:15 pm **Closing words**
Dr. Benjamin Witzel
Siemens Energy

