

Conference



Tribologie – Reibung,
Verschleiß & Schmierung

Call for papers
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abstract now!

23rd – 25th January 2024 | Ostfildern/Stuttgart, Germany

SAVE THE DATE

24th International Colloquium Tribology Industrial and Automotive Lubrication

Steering Committee
N. Dörr, C. Gachot, K. Völkel

In cooperation with:
German Lubricant Manufacturers Association (VSI) and Austrian Society for Tribology (ÖTG)



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TAE

23rd – 25th
Jan. 2024

24th International Colloquium Tribology



In a series of 23 successful events, the Colloquium has become a permanent fixture in the event calendar of tribologists and those working in related fields. Participants from all over the world come to exchange ideas, present their latest findings, make business contacts and forge new friendships. The ICT usually attracts more than 400 participants.

Your unique
opportunity
to share
experiences!

Steering Committee

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Vienna University of Technology, Vienna, Austria

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Submission
of abstract
until 16th June
2023

Call for Papers

Participate in the event as a speaker! Share your experiences and present your research work to an international audience. Benefit from the reduced participation fee!



Program

The 24th International Colloquium Tribology aims to highlight exciting developments that affect important areas of tribology and support the development of novel technologies that will have a strong impact on future sustainable development.

We invite all researchers to share their latest work in a stimulating and international atmosphere as offers our event.

Contributions from research are requested in the following areas (and beyond):

Main Topics

New trends in lubricants and additives

- Oils and greases
- Additives
- Solid lubricants
- Lubricants and coolants for electrical vehicles
- Hydraulic, turbine and compressor fluids
- Food-grade lubricants
- Complex fluids and rheology
- Alternative fuels
- Standards and specifications

Machine elements and their application in tribology

- Gears and transmission systems
- Bearings
- Seals
- Clutches
- Fuel-economy of engines and powertrains
- Tribological aspects of electrical drive trains
- Tribology of aircraft components

- Tribology in power systems such as wind turbines
- Machining processes

Test and measurement methodologies

- Novel measurement techniques
- Online condition monitoring of lubricants and machine components
- Design of experiments in tribology
- Surface characterization
- Particle and contamination identification
- Advanced filtration techniques
- Tracing by radioactive isotopes
- Reliability testing
- Cryotribology

Coatings, surface interactions and underlying mechanisms

- New insights in friction, adhesion and wear mechanisms
- Micro- and nanotribology
- Wear and wear protection
- 2D layered materials
- Lubricating thin films
- Tribochemistry
- Elastohydrodynamic lubrication
- Tribology of polymer and composite materials
- Embedded lubrication in polymer and sintered materials

Computational methods and digital transformation in tribology

- Artificial intelligence and machine learning
- Lifetime and failure prediction models
- Lab-to-field approach

- Digital twins
- Condition-based and predictive maintenance
- Internet of things
- Contact mechanics
- FEM modelling of tribosystems
- Molecular dynamic simulation
- New programming tools for tribology research

Sustainability and resource efficiency

- Environmental compatibility
- Life-cycle assessment in tribology
- Circular economy
- Energy efficiency
- CO₂ reduction in engines
- Tribology in hydrogen environment
- Biolubricants
- Water-based lubrication

Conference

The Conference includes more than 150 lectures in 6 parallel sessions, several plenary talks with high-profile invited speakers.

An industrial exhibition shows the state of the art and future trends in tribology research and application.

The interesting social programme makes your stay unforgettable and offers many networking opportunities.

Speakers information

Conference language is English. The lecture duration at the colloquium is 25 min. plus 5 min. discussion. The evaluation and selection of submitted contributions is made by the program committee

until the end of July 2023. Authors of accepted abstracts will be requested to submit a 2-page extended abstract with figures and references which represents the quintessence of the presentation.

Conference speakers pay a reduced participation fee of €190.00. Co-speakers and co-authors pay the regular participation fee of €1,120.00 free of V.A.T.. Travel expenses are not reimbursed.

Authors have the opportunity to publish their complete manuscript peer-reviewed in the following journals: "Industrial Lubrication and Tribology" published by Emerald Publishing Group Leeds UK or "Tribology and Lubrication" published by expert Verlag, Tübingen, Germany.

Author's schedule

- Submission of abstract until **16th June 2023**
- Confirmation of abstract until **the end of July 2023**
- Submission of short biography, photo and a 2-page extended abstract for conference documentation until **31st October 2023**
- 24th International Tribology Colloquium **23rd - 25th January 2024**

Speakers wanted!
Submit your abstract:
www.tae.de/50019





Submit abstract
or register under:
www.tae.de/50019

Do you have questions about registration?
+49 (0) 711 340 08 - 23

Venue

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Registration and accommodation service

W www.tae.de/50019

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We would be happy to book your hotel room for you. We have reserved contingents in various hotels close to the TAE.

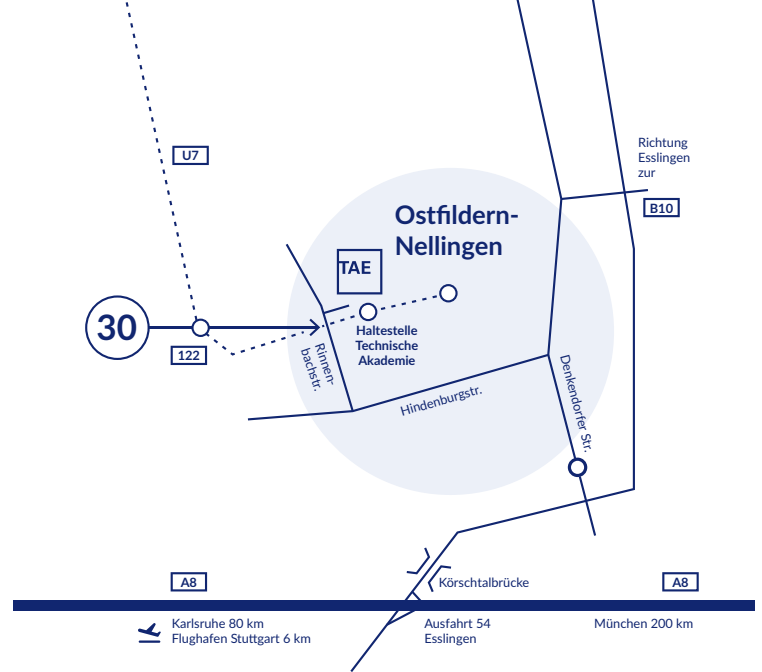
LinkedIn Group

Join our LinkedIn group for the latest updates and connect with our speakers, exhibitors and other participants.

- 1. go to www.linkedin.com
- 2. search for „International Colloquium Tribology – TAE“ or use QR-Code



#TAEweiterbildung



Reasons to attend

- ✓ *The International Tribology Colloquium offers a unique mix of industry and research in the field of Friction and Lubrication.*
- ✓ *Present your company and products to an international audience at the exhibition*
- ✓ *Experience the latest research results and learn about current developments in the industry*
- ✓ *Meet all the key experts at just one event*

