



## 2021 Virtual Tribology Exchange Workshop Programme

The Programme will be ready in due course.

**\*\***The programme will be in a similar format as the Tribology Exchange Workshop held in Amsterdam in 2019 with confirmed speakers from:

- ❖ AC2T research GmbH, Wiener Neustadt, Austria
- ❖ Bournemouth University UK
- ❖ Danfoss, Nordborg Denmark
- ❖ Ducom, Groningen, Netherlands
- ❖ Falex, Rotselaar Belgium
- ❖ LaMCoS Insa, Lyon France
- ❖ Matrilub, Berlin Germany
- ❖ Max Planck Institute für Eisenforschung, Duesseldorf Germany
- ❖ Purdue University, West Lafayette, Indiana USA
- ❖ Schaeffler, Herzogenaurach Germany
- ❖ SKF, Houten Netherlands

### Herewith information on the 2019 Tribology Exchange Workshop



Manfred Jungk  
ELGI Director / STLE Europe Representative

The ELGI & STLE combined their strengths to set up a first European Tribology Exchange Workshop in November in Amsterdam. After conducting a Tribology Training Course the year before, in 2018, the objective was to run a two-day interactive workshop. The Workshop Chair Committee, consisting of Dr. Hannes

Grillenberger of Schaeffler, Dr. Manfred Jungk of MJ Tribology and Dr. Markus Matzke of Robert Bosch, put together a programme featuring young and well renowned speakers, covering key tribology related disciplines; tribology fundamentals, material science, mechanical engineering, tribo-testing, lubricant chemistry and applications.



A total of 18 presentations with individual topics ranging from simulations on rolling element bearings and marine propeller seals to practical aspects of testing roller-on-disc geometry and generating fretting corrosion. Fundamentals presented covered the physics of friction and EHL film thickness formation. Lubricating grease life, key applications and challenges in wind turbines were also on the programme chaired by Manfred as well as tribological aspects of contact lenses and chocolate.



The attendees enjoyed the informal and casual atmosphere of the event allowing early career individuals in the field to meet experts who listened to their challenges and also allowed the experts to meet peers they had not previously encountered. This was possible through Hannes' moderation in which he collected all the delegates "main expectations" and "technical questions to be answered" at the beginning and then checked their fulfilment at the end.

In between presentations he prompted participants on demographics, initiated "speed dating" sessions for those who had not talked to each other and at the end of each day, he conducted discussion round tables on the technical questions asked. These included tribo-films and run-in, e-mobility and tribology, challenges of tribology and lubrication in the context of digitalisation (which was also the topic of a presentation), grease life prediction and education. Using a flexible format without a fixed presentation, the schedule also allowed for extensive discussions and interchange.



Due to the positive feedback all throughout the event, we are now planning to conduct an equivalent event but with a unique format in 2020.

So, make sure to reserve the last week in October next year in your calendars.

Such events can only be made possible through the tremendous logistical efforts of Carol Koopman from ELGI Amsterdam and Stefan Carrera from STLE HQ Park Ridge. Thus, a very special thanks goes to them and also to Hannes for his energetic style of

moderation at this year's event!

# 2019 Programme Tribology Exchange Workshop

## Day 1

### TRIBOLOGY FUNDAMENTALS

#### Fundamentals of EHL film thickness formation and prediction

Philippe Vergne (INSA Lyon)

#### The Physics of Friction

Ian Taylor (Shell)

#### Fundamentals of Bearing Tribology

Guillermo Morales (SKF)

### MECHANICAL ENGINEERING

#### Rotary Lip Seals: a Misaligned Approach

F. Xavier Borrás (University of Twente)

#### Bearing Design for Dynamic Operating Conditions

Hannes Grillenberger (Schaeffler)

#### Grease Life in Rolling Bearings

Piet Lugt (SKF)

### MATERIAL SCIENCE

#### Material Science Aspects of the Wear of Metallic Materials

Alfons Fischer (MPI Eisenforschung)

#### Cage Dynamics in Rolling Bearings by Test and Simulation

Sebastian Schwarz (Uni Erlangen)

#### Surface Texturing

Vasilios Bakolas (Schaeffler)

## Round Table Discussions

## Day 2

### TRIBOLOGY TESTING

#### Roller-on-Disk Geometry for Extreme Pressure Gear Oils

Mathias Woydt (Matrilub)

#### Food Tribology: Concepts and Experimental Approaches

Florian Rummel (Anton Paar)

#### How to Approach a Real World Tribology Problem on Lab Scale

Dirk Drees (Falex Tribology)

#### Digital Transformation in Tribology

Deepak H. Veeregowda (Ducom Instruments B.V.)

### LUBRICANT CHEMISTRY

#### The Mechanisms of Surface Damage in Rolling Sliding Contacts

AmirKadiric (Imperial College)

#### Fretting Wear Tests – Basics, Industrial Relevance and Test Realisation

Henrik Buse (Hochschule Mannheim)

### APPLICATION

#### Blink of an Eye - a Biotribology Quest Towards Patient Comfort

Christian Mathis-Illich (SuSoS AG)

#### Grease Applications

Aleksandra Nevskaya (DDP Specialty Products)

#### Lubricant Challenges in Wind Turbine Applications

Olav Hoeger (Shell)

## Round Table Discussions

