Technische Universität Braunschweig

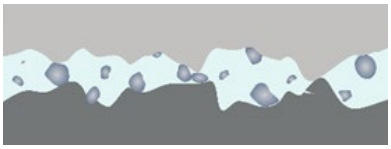
Technische Universität Berlin

International Workshop

Wear Particle Transport and Emission:

Mechanisms and Environmental Implications

26.-27. November 2020



Organizers: Georg-Peter Ostermeyer and Valentin L. Popov

Venue: Technische Universität Braunschweig

Objectives

The topic of the workshop is part of the problem of the "third body" in tribology. The third body is closely related to all properties of a tribological system and determines the friction, the intensity of wear, the chemical composition of the surface layers and the relevant system dynamics. The mass transport process ultimately leads to the emission of wear particles into the environment.

The workshop focuses on the current research on wear and particle emissions and aims to placing it in a broader tribological context of the third body. The problem of wear, the third body and emissions out of tribological systems are not only topical in scientific and political terms, but also highly complex. Recently, promising approaches for adhesive wear have been proposed. The organizers agree that now is the right time to look for new approaches to this highly complex problem.

Topics

- New approaches in simulation of adhesive wear
- Understanding the third body as an important current challenge of tribology
- Intermixing and transport of wear particles
- Lubricant flow in partially filled gaps
- Highly loaded contacts
- Method of Dimensionality Reduction (MDR) - applications for simulation of particle transport
- Applications of FFT-based Boundary Element Method (BEM) for simulation of particle transport
- Discrete element and molecular dynamics

Call for papers

If you are interested in participation, please submit by e-mail an abstract in English not later than August 23, 2020.

Contact

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