



## Multiphysics and Multiscale Models of Tribology

Guest Editor:

**Prof. Dr. Andreas Almqvist**

Division of Machine Elements,  
Luleå University of Technology,  
SE-971 87 Luleå, Sweden

Deadline for manuscript  
submissions:

**closed (30 June 2018)**

### Message from the Guest Editor

This Special Issue, “Multiphysics and Multiscale Models of Tribology”, in the open access journal *Lubricants*, is open for submissions presenting modelling and simulations involving the multiphysics and/or multiscale nature of tribological interfaces found in bearings, gears, seals, etc. While it encourages a broad spectrum of contribution in tribology, its core interest lies in issues concerning the development, verification and validation of the models and their numerical solution procedures. Papers of transdisciplinary nature presenting and connecting fundamental research with more applied are particularly welcome.

### Keywords

- Elastohydrodynamic lubrication
- Contact mechanics
- Leakage/percolation
- CFD
- Fluid-structure interaction
- Mechanical deformation
- Thermal expansion
- Roughness
- Cavitation





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Homer Rahnejat**

School of Engineering, University  
of Lancashire, Preston PR1 2HE,  
UK

## Message from the Editor-in-Chief

Friction, wear, and lubrication are tribological phenomena that govern the behavior of interacting surfaces in a wide range of machine components. Understanding the physical and chemical nature of these phenomena is critical to achieving long component lifetime and economical operation. Research in the field of tribology is highly interdisciplinary, and encompasses the fields of physics, chemistry, engineering, and mathematical modeling. *Lubricants* invites contributions on new advances in all areas of tribology for publication as peer-reviewed research articles, reviews of current research, letters, and communications. We are committed to providing timely reviews of all articles submitted. Please consider sharing your work with the scientific community through publication in *Lubricants*.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (Engineering, Mechanical) / CiteScore - Q2 (Mechanical Engineering)

## Contact Us

---

*Lubricants* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/lubricants  
lubricants@mdpi.com  
X@Lubricants\_MDPI