Special Issue

Multiscale and Modern Solutions in the Simulation of Lubricated Contacts

Message from the Guest Editors

In order to reduce energy consumption in lubricated contacts, operation at the limit of mixed lubrication and surface texturing are usual solutions. It is, thus, crucial to be able to simulate such problems, including surface texture and/or roughness, with accurate and efficient methods in order to increase our knowledge on these problems and, eventually, to provide design tools for engineers. The main difficulty is considering the different scales (surface roughness and texture up to contact size) that ranges over several orders of magnitude. Several modelling or solution methods are now developed to reduce the computation burden : it includes multiscale approaches, efficient computation methods such as multithreading or GPU calculation and machine learning. Authors are encouraged to explore the benefits of multiscale methods, multithreading computation, machine learning techniques or any other modern methods for lubricated contacts and submit their results along with the structure of the algorithm to this Special Issue.

Guest Editors

Dr. Noël Brunetière

Dr. Arthur Francisco

Dr. Greg de Boer

Deadline for manuscript submissions

closed (30 June 2023)

Lubricants

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Impact Factor 2.9
CiteScore 4.5

mdpi.com/si/117687

Lubricants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
lubricants@mdpi.com

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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.*

Editor-in-Chief

Prof. Dr. Homer Rahnejat
School of Engineering, University of Central Lancashire, Preston PR1 2HE, UK

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