



Multiscale and Modern Solutions in the Simulation of Lubricated Contacts

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Deadline for manuscript
submissions:

closed (30 June 2023)

Message from the Guest Editors

Dear Colleagues,

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.

