Special Issue

Advances in Bearing Lubrication and Thermodynamics 2023

Message from the Guest Editors

Bearings are currently the most widely used mechanical components. In the process of high-speed and heavy load operation, friction and heat generation between rolling elements, cages, and rings increase. At this time, lubrication technology is integral to reducing bearing friction and wear, strengthening bearing heat dissipation, and extending bearing life. In the last century, important research on various aspects of bearing thermal analysis and corresponding lubrication technology has been extensive. However, as bearing speeds continue to increase, complex operation conditions pose more challenges to bearing thermal analysis. At the same time, the continuous cross-fusion of materials, sensors, big data, and emerging technologies has enabled the continuous expansion of bearing lubrication technology. The current Special Issue is aimed at the latest developments centred around bearing thermal mechanisms and lubrication technology, as well as the effect of bearing working parameters on lubrication performance and thermal behavior.

Guest Editors

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Deadline for manuscript submissions

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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

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