Special Issue

Advances in Lubricated Bearings, 2nd Edition

Message from the Guest Editors

Understanding the physics of lubricated bearings is essential for their design and optimization to achieve robust, reliable, and highly efficient operation in rotating machinery. Extensive investigations reported in the international literature have contributed significantly to the current state of the art in practical applications, as tribology engineers from practice and research maintain close relationships. In recent decades, improvements in design, lubrication, and materials have led to significant increases in the power density attainable at higher mechanical or thermal loads. Despite these achievements, there are still phenomena that are not sufficiently described, understood, or solved, and that are becoming more important due to novel applications or the extension of operating ranges. This Special Issue is a continuation of its first part and aims to share progress in understanding specific phenomena. improved design, and other novel aspects in the field of lubricated rolling and sliding bearings. It covers materials, fluid flow, and the interaction of the bearing with other machine components. Both experimental and theoretical investigations are highly welcome.

Guest Editors

Dr. Thomas Hagemann

Institute of Tribology and Energy Conversion machinery, Clausthal University of Technology, Clausthal-Zellerfeld, Germany

Prof. Dr. Hubert Schwarze

Institute of Tribology and Energy Conversion Machinery, Faculty of Mathematics/Informatics and Mechanical Engineering, Clausthal University of Technology, Leibniz Street 32, 38678 Clausthal-Zellerfeld, Germany

Deadline for manuscript submissions

31 December 2025



Lubricants

an Open Access Journal by MDPI

Impact Factor 2.9 CiteScore 4.5



mdpi.com/si/219657

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

mdpi.com/journal/ lubricants





Lubricants

an Open Access Journal by MDPI

Impact Factor 2.9 CiteScore 4.5





About the Journal

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

Author Benefits

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)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).