Special Issue

Cutting-Edge Research in Tribology and Its Applications to Rolling Element Bearings

Message from the Guest Editors

Tribology, encompassing friction, wear, lubrication, and surface interactions, plays a pivotal role in determining the efficiency, longevity, and reliability of rolling element bearings critical to various industrial applications. This Special Issue aims to compile and showcase the most recent advancements, breakthroughs, and innovative strategies in tribology as they relate to rolling element bearings. We invite contributions encompassing experimental investigations, theoretical models, and computational simulations that elucidate fundamental principles or offer novel solutions to the challenges faced in this field. The topics of this Special Issue include, but are not limited to:

- Computational modeling and simulation studies to enhance the understanding of tribological behaviors in rolling element bearings.
- Novel materials and coatings used for improved bearing performance and durability.
- Advanced surface engineering techniques and their impact on bearing tribology.
- Innovative lubrication strategies.
- Biomimetic design approaches to optimize bearings' functionalities.
- New experimental discoveries and physical mechanisms.

Guest Editors

Dr. Dongwu Li

School of Astronautics, Northwestern Polytechnical University, Xi'an 710072, China

Dr. Yaguang Wu

Sino-French Engineering School, Beihang University, Beijing 100191, China

Deadline for manuscript submissions

closed (28 February 2026)

Machines

an Open Access Journal by MDPI

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CiteScore 4.7

mdpi.com/si/192440

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

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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
CISE—Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

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