

Special Issue

Design and Characterization of Engineered Bearing Surfaces

Message from the Guest Editors

The design and manufacturing of engineered bearing surfaces plays a crucial role in the performance and reliability of mechanical equipment. The bearings' surface quality significantly impacts their operational efficiency, fatigue life, and overall reliability. Achieving precise and desired surface finishes is essential for optimal performance. The main challenges lie in:

- **Tolerance Control:** Maintaining tight tolerances during manufacturing is challenging due to material variations and process limitations.
- **Surface Integrity:** Achieving desired surface properties (such as hardness, roughness, and microstructure) without compromising bulk material properties is complex.
- **Wear and Friction:** Balancing wear resistance and low friction is critical for prolonged bearing life.
- **Complex Geometries:** Some bearing designs involve intricate shapes, making machining and finishing difficult.

This Special Issue encourages and welcomes original research articles with a significant contribution to numerical, theoretical, and experimental surface analyses. Review articles related to these application areas are also invited.

Guest Editors

Dr. Robert Tomkowski

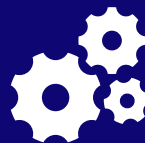
Department of Production Engineering, Manufacturing and Metrology Systems, KTH Royal Institute of Technology, Brinellvägen 68, 114 28 Stockholm, Sweden

Dr. Ellen Bergseth

Department of Engineering Design, KTH Royal Institute of Technology, Brinellvägen 85, 114 28 Stockholm, Sweden

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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About the Journal

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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