Special Issue

Advances in Machining, Surface Integrity, and Operational Properties of State-of-the-Art Materials

Message from the Guest Editors

The scope of this Special Issue includes, among others, the following:

- The influence of cutting and grinding conditions on machinability parameters of state-of-the-art materials;
- Modern designs of cutting and abrasive tools, including coated tools, tools with modified micro-geometry or tools manufactured from advanced materials;
- Innovative cooling and lubrication strategies, such as minimum quantity lubrication (MQL), minimum quantity cooling lubrication (MQCL), high-pressure cooling, cryogenic cooling or hybrid solutions;
- Surface layer integrity characteristics, including topography changes and surface defects, micro-structure, residual stresses, etc.;
- Structural and compositional analyses of the surface layer;
- Computational modeling of cutting and grinding processes;
- Development of high-speed cutting and high-performance cutting;
- Advances in machining, surface integrity and operational properties of advanced materials friction as well as wear behavior of the machined surface and their impact on operational properties.

Guest Editors

Dr. Kamil Leksycki

Institute of Mechanical Engineering, University of Zielona Gora, 4 Prof. Z. Szafrana Street, 65-516 Zielona Gora, Poland

Prof. Dr. Eugene Feldshtein

Institute of Mechanical Engineering, University of Zielona Gora, 4 Prof. Z. Szafrana Street, 65-516 Zielona Gora, Poland

Deadline for manuscript submissions

20 August 2026

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/268574

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

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)