



Ultraprecision Machining Technology—Manufacture and Metrology of Structured and Freeform Surfaces for Functional Applications

Guest Editors:

Prof. Dr. Benny C. F. Cheung

State Key Laboratory of Ultra-Precision Machining Technology, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong, China

Prof. Dr. W.B. Lee

Partner State Key Laboratory of Ultraprecision Machining Technology, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong

Deadline for manuscript submissions:

closed (30 September 2017)

Message from the Guest Editors

Structured and freeform surfaces with functional characteristics have been widely used in many mission-critical applications. These surfaces have non-rotational symmetry with sub-micrometre form accuracy and nanometric surface finishing. Due to their geometrical complexity and high precision requirements, this leads to numerous research challenges in different fields including ultraprecision machining technologies, cutting mechanics, surface generation mechanisms, novel machine design, accurate control of the machining process through modelling and simulation of ultraprecision machining processes, error compensation, freeform measurement and on-machine metrology. This Special Issue aims to provide a good collection of the latest research results and findings in design, ultraprecision machining and measurement of structured and freeform surfaces and their functional characteristics. This Special Issue will also contain selected papers from the ASPEN/ASPE Spring Topical Meeting 2017 (www.aspen-aspe2017-topical.com/index.php) which will be held from 14–17 March 2017, in Hong Kong, China.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Ai-Qun Liu

1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

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), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Mechanical Engineering*)

Contact Us

Micromachines Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/micromachines
micromachines@mdpi.com
[X@micromach_mdpi](https://twitter.com/micromach_mdpi)