

Special Issue

Open Challenges of On-Machine and In-Process Metrology for Precision Manufacturing

Message from the Guest Editors

This Special Issue will cover the current and most pressing open challenges in the application of on-machine and in-process metrology for precision manufacturing. Submissions are particularly welcomed in the following subject areas: **1. Measurement for applications in process monitoring and control** - Innovative measuring technologies for on-machine and in-process metrology of fundamental quantities; - On-Machine and in-process measurement for monitoring components of manufacturing systems or entire manufacturing machines - On-Machine and in-process measurement of roundness/cylindricity/straightness/flatness; - On-Machine and in-process measurement of surface topography; **2. Measurement uncertainty estimation and calibration** - Estimation of measurement uncertainty and assessment of measurement error sources; - Calibration and self-calibration of measuring systems for on-machine and in-process metrology. **3. Data processing** - Novel computational solutions for fast and lightweight measurement data processing - AI and machine learning for on-machine and in-process metrology - Digital twins to support on-machine and in-process metrology.

Guest Editors

Dr. Sudhanshu Nahata

Dr. Shengyu Shi

Prof. Dr. Nicola Senin

Prof. Dr. Jorge Santolaria Mazo

Deadline for manuscript submissions

closed (15 September 2023)



Metrology

an Open Access Journal
by MDPI

Impact Factor 1.5
CiteScore 2.6



mdpi.com/si/124005

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

[mdpi.com/journal/
metrology](https://mdpi.com/journal/metrology)





Metrology

an Open Access Journal
by MDPI

Impact Factor 1.5
CiteScore 2.6



[mdpi.com/journal/
metrology](https://mdpi.com/journal/metrology)



About the Journal

Message from the Editor-in-Chief

Metrology draws together researchers from diverse areas of metrology or measurement technology in a wide variety of applications. I encourage you to submit your manuscripts for consideration or publication in the area of measurement engineering, according to the scope of the journal. *Metrology* is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

Editor-in-Chief

Prof. Dr. Han Haitjema
Department of Mechanical Engineering, KU Leuven, Celestijnenlaan
300, 3001 Leuven, Belgium

Author Benefits

Open Access:

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

High Visibility:

indexed within ESCI (Web of Science), Scopus and other databases.

Journal Rank:

CiteScore - Q2 (Engineering (miscellaneous))