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

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Deadline for manuscript submissions

closed (15 September 2023)

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Message from the Editor-in-Chief

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