Micro-Machining: Challenges and Opportunities

Message from the Guest Editors

Dear Colleagues,

Nowadays, micromachining technologies are clearly advancing towards the economical manufacturing of customized high-precision 3D micro-products made of a variety of materials, including difficult-to-machine materials, such as glass, sappier, ceramics, hard steels, and CoCr. They propose significant research challenges from the aspects of fundamental machining mechanisms, micro-tooling technologies, machine dynamics, machining dynamics, thermal control, etc., but, meanwhile, provide great opportunities to research and develop new advanced micromachining technologies, such as multi-scale modelling, hybrid micromachining, and dynamic error compensation to name a few.

Therefore, we invite contributions to showcase recent novel technological advances in micromachining technologies. Papers in all areas of micromachining technologies will be considered; including, but not limited to, micro-cutting, micro-milling, micro-grinding, polishing, micro-EDM, micro-ECM, laser micromachining, FIB micromachining, and hybrid micromachining.

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