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# **Machining—Recent Advances, Applications and Challenges**

Guest Editors:

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Deadline for manuscript submissions:

closed (31 May 2019)

## **Message from the Guest Editors**

- High performance operations for difficult-to-cut alloys, wrought and cast materials, light alloys, ceramics
- Cutting tools, grades, substrates and coatings.
- New applications of machining in high-added value components, for aeronautics, automotive, windmill, energy, and other key sectors.
- Heat in metal cutting: Heat sources, accuracy in machining, prediction and measurements of temperatures in the cutting zone.
- Advanced cooling in machining: Minimum quantity of lubricant, dry or cryogenics.
- Modelling, focused on the reduction of risks, the process outcome, and to maintain surface integrity.
- Vibration problems in machines: Active and passive/predictive methods, sources, diagnosis and avoidance.
- Influence of machining in new concepts of machine-tool, and machine static and dynamic behaviors.
- Machinability of new composites, brittle and emerging materials.
- Sensor-assisted machining: Sensors and system architecture, intelligent/smart tools.
- Assisted machining processes by high-pressure, laser, US and others.
- Micromachining, challenges and applications.
- Introduction of new analytics and decision making into machining programming.
  Specialsue











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### **Editor-in-Chief**

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## **Message from the Editor-in-Chief**

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