

— Call for Papers —  
A Symposium on  
**Hard Machining and Grinding**

Sponsored by the ASME Manufacturing Engineering Division's  
*Manufacturing Processes Technical Committee*  
2019 ASME International Manufacturing Science and Engineering Conference (MSEC)\*  
June 10-14, 2019  
Erie, Pennsylvania  
Hosted by Pennsylvania State University, The Behrend College

### Technical Focus

Hard machining and grinding are commonly used to shape and refine critical components used in a variety of applications from aerospace to the health-care industry. The cost associated with these traditional metal removal processes continues to be a significant part of the overall manufacturing cost of the components, and there is therefore a need to continue development of these processes. In addition, applications of these processes to new high-strength, lightweight materials and composites require fundamental understanding of metal removal mechanisms, tool wear, and resultant surface properties. This symposium will promote research activities in hard machining and grinding processes. Specific topics of interest include, but are not limited to the following:

- Advances in hard machining and grinding (e.g., metal removal rate, surface integrity, geometrical accuracy, abrasives, etc.)
- High-speed grinding and profile grinding
- Process control (e.g., real-time process optimization and monitoring) of hard machining and grinding
- Methods to minimize workpiece distortion
- Hard machining and grinding of novel materials and additively manufactured components
- Modeling and simulation of hard machining and grinding processes
- Hybrid processes combining hard machining and grinding with non-conventional metal-removal processes
- Economics of hard machining and grinding processes

### Paper Submission

Authors are encouraged to submit an abstract and full manuscript for review by **November 02, 2018** via the conference website. Final revised manuscripts must be submitted by **March 15, 2019**. The copyright transfer form must be filled out by March 8, 2019, and the presenting author must pre-register by **April 05, 2019**; or the paper will be withdrawn from the conference. Authors may also consult [www.asme.org/divisions/med/call/](http://www.asme.org/divisions/med/call/) for updates. **No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at [www.asmeconferences.org/msec2019/](http://www.asmeconferences.org/msec2019/).**

### Additional Symposium Activities

To highlight advancements in this technical area, symposium organizers will:

- work to attract a high profile international keynote speaker
- organize a special issue in the ASME Journal of Manufacturing Science and Engineering or ASME Journal of Micro and Nano-Manufacturing
- organize a state-of-the-art paper that will be the lead article in the special issue

### Organizers:

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\* The conference is collocated with NAMRI/SME's 47th North American Manufacturing Research Conference (NAMRC47), which will have a separate call-for-papers. Please note that submissions of the same paper to more than one conferences are not permitted.