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TMS 2020
149th Annual Meeting & Exhibition

February 23-27, 2020 • San Diego, California, USA

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Additive Technologies

Additive Manufacturing: ICME Gap Analysis

Integrated computational materials engineering (ICME) has been successfully employed on conventional manufacturing processes to predict process-structure-property relationships. However, explicit gaps exist between the properties/defects of additively manufactured components and predicted from the state-of-the-art ICME tools.

The focus of this symposium is evaluating the performance of existing ICME models, databases, simulation tools, and general infrastructure development to identify their applicability and gaps that exist for additive manufacturing and to develop a future research roadmap. Presentations in this symposium will include the following topics:

- An assessment on the accuracy/maturity of current ICME models for AM
- New approaches to bridge the currently identified ICME gaps for AM
- High-throughput experiments to support database development for AM
- Design of experiments to promote physics-based model development for AM
- Assessments and uses of current high-throughput ICME tools for AM
- Identification of gaps at all levels of the integration for AM

Abstracts should be submitted to this symposium by invitation only.

ORGANIZERS
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Abstract Deadline is July 1, 2019. Submit online at www.programmaster.org/TMS2020.

Questions?
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