JOM Call for papers

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Microstructure Characterization: Descriptors, Data-Intensive Techniques, and Uncertainty Quantification (By Invitation Only)

Advancements in computational processing power, instrument and detector capabilities, and multi-scale modeling techniques are generating increasingly large three-dimensional microstructural datasets that have facilitated the discovery of quantitative descriptors linking processing parameters to material properties. This special topic will focus on theoretical and computational developments of novel descriptors to characterize microstructural features. Also invited are papers that apply advanced statistical techniques, such as machine learning and uncertainty quantification, for collecting, analyzing and reconstructing experimental microstructural datasets.

Original research papers should be 3,000-6,000 words with up to 8 figures maximum; review papers should be 6,000-10,000 words with up to 15 figures maximum.

Detailed author instructions are available at: http://www.tms.org/AuthorTools/

Keywords for this topic: Advanced materials; characterization; computational materials science & engineering; microstructure; uncertainty quantification; ICME

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Please note that all submissions will be subject to peer review. Submission does not guarantee acceptance.

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