

2021 SFF SYMPOSIUM BEST PAPERS

The following 13 manuscripts were judged by the Conference Organizing Committee to be outstanding. Eight are included in a special issue of the TMS publication *JOM*, March 2022 with their abstracts reproduced in this Proceedings. The remaining five manuscripts appear in this Proceedings, with a substantially improved version appearing in the *JOM* special issue.

**The following authors chose to publish their manuscript only in *JOM*,
so their papers do not appear in this proceedings.**

Fused Filament Fabrication on the Moon

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Enabling Cost-based Support Structure Optimization in Laser Powder Bed Fusion of Metals K. Bartsch¹ and C. Emmelmann¹

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An Investigation on the Definition and Qualification of Form on Lattice Structures

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Investigation of Mechanical Properties of Parts Fabricated with Gas- and Water-Atomized 304L Stainless Steel Powder in the Laser Powder Bed Fusion Process

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Preliminary Study on Machining of Additively Manufactured Ti-6Al-4V

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Numerical Predictions of Bottom Layer Stability in Material Extrusion Additive Manufacturing
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A Method of Predicting Powder Flowability for Selective Laser Sintering

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Powder Spread Process Monitoring in Polymer Laser Sintering and Its Influences on Part Properties

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**The following authors chose to publish their manuscripts in this proceedings
and to publish a substantially improved paper in *JOM*.**

The Anisotropic Yield Surface of Cellular Materials

Kaitlynn M Conway¹; Zachary Romanick¹; Lea M Cook¹; Luis A Morales¹; Jonathan D Despeaux¹;
Marcus L Ridlehuber¹; Christian Fingar¹; Daquan Doctor¹; Garrett J Pataky¹

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Effect of Process Parameters on the Vibration Properties of PLA Structure Fabricated by Additive Manufacturing

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Investigation Towards AlSi10Mg Powder Recycling Behavior in the LPBF Process and Its Influences on Mechanical Properties

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A Comparative Study on the Microstructure and Texture Evolution of L-PBF and LP-DED 17-4 PH Stainless Steel during Heat Treatment

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Øgon, A Revolutionary New Lens Free Optical Scanner (LFOS) for Additive Manufacturing (AM)

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