



Detroit - USA | June 19-23, 2022
Annual Conference



31st International Conference on Flexible Automation and Intelligent Manufacturing

— Call for Papers — A Special Session on Design for Additive Manufacturing

Technical Focus

The advent of additive manufacturing (AM) has created the need for design methodologies and structural optimization approaches that consider the specific characteristics of the fabrication process. AM processes give unprecedented geometrical design freedom, which can result in significant reductions of the weight of the components and new design methods are required to exploit the potential of the methodology. There is a strong relationship between geometry and performance and planning for it is key to the process. Design for AM comprises new design models, methods, processes and tools focused on the link between designing and manufacturing.

This Special Session aims at gathering together research investigating the different approaches to design for AM, including development of design guidelines and assessment of design requirements in relation with processes, materials and technological constraints.

Topics of interest for this special session include, but are not limited to the following:

- Topology optimization;
- Generative design;
- Lattice structures;
- Multiscale structure design;
- Multi-material design;
- Design for mass customization;
- Parts consolidation;
- Thermal issues in design.

High visibility refereed publications

All accepted papers presented at FAIM 2022 will be published in *Lecture Notes in Mechanical Engineering* (Springer), indexed by Scopus. Alternatively, authors may opt for submission to *Robotics and Computer-Integrated Manufacturing* (Elsevier), *International Journal of Advanced Manufacturing Technology* (Springer) or *SME Journal of Manufacturing Systems* (Elsevier), following a special 'fast-track' reviewing process. Post-conference special issues for selected papers will appear in the *International Journal of Computer Integrated Manufacturing* (Taylor and Francis) and *Machines* (MDPI).

Paper Submission

Site: www.faimconference.org, email: faim2022conference@gmail.com.

Abstract submission: immediately (optional); Full paper submission deadline: February 14, 2022; Review results: March 31, 2022; Revised manuscript deadline: April 20, 2022; Final paper acceptance: April 30, 2022.

Additional Special Session Activities

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

- work to attract a high-profile international keynote speaker
- organize a special issue in the *International Journal of Advanced Manufacturing Technology* or *Robotics and Computer-Integrated Manufacturing*
- organize a state-of-the-art paper that will be the lead article in the special issue

Organizers

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