

# ADDITIVE MANUFACTURING & DESIGN SEMINAR SERIES

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**Tuesday, September 12, 2023**  
**11:00 AM – 12:00 PM (ET) | Zoom**

\*Must register in advance to receive the Zoom link to join the seminar:  
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## Tino Stankovic

Senior Scientist, Engineering Design and Computing Laboratory  
ETH Zürich in Switzerland



## Computational Design for Additive Manufacturing: From Lattices to Origami-Based Deployable Structures

### ABSTRACT

In the first part of the presentation, I will focus on our research in the computational design of lattice structures. Enabled by rapid advances in additive manufacturing, lattice structures offer a huge variety of different designs with a great potential to realize structures with advanced macroscopic mechanical and physical properties. The second part of the presentation focuses on the computational design of origami-based structures. I will present the research conducted in our lab to make origami and its governing principles readily accessible to engineering design practitioners and researchers alike. The presentation will conclude with the example of how computational design and multi-material printing can be used for applications in personalized medicine.

### BIOGRAPHY

Tino Stankovic is a senior scientist at Engineering Design and Computing Laboratory at ETH Zürich in Switzerland. His research focuses on developing computational models, methods and tools to support the design for additive manufacturing as well as design optimization, and design automation. Current interests include development of advanced computational design methods to automatically generate and optimize lattice structures, computational design of metamaterials, computational design of origami-adapted rigid-foldable structures, and computational design of 3D printed, personalized medical devices. Tino Stankovic serves as a reviewer for several established scientific journals and conferences. He is a member of the Design Society.



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