ETHzürich

MaP
Doctoral School
advanced manufacturing

1 Advanced Manufacturing

Transforming raw materials into useful products

- Innovations in manufacturing are driven by global challenges like resource scarcity and climate change, along with technologies such as digitalisation, robotics, and AI.

- Advanced manufacturing technologies reduce costs, regardless of part complexity or production quantity, while minimising environmental impact, especially CO_2 emissions.

- "Advanced Manufacturing" covers the entire value chain, from raw materials to final products in industrial, construction, and clinical sectors.

- Key areas include additive, robotic, and hybrid manufacturing, production engineering, advanced process control, and data-driven methods.

2 Organisation and Focus

Track co-chairs
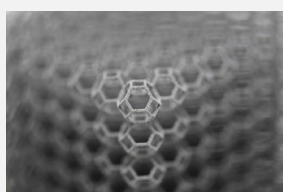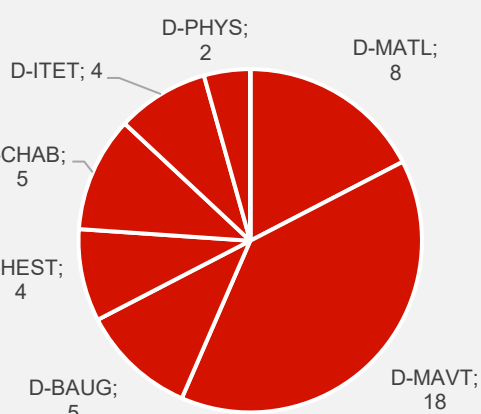

Prof. Dr. Markus Bambach
Advanced Manufacturing,
D-MAVT

Prof. Dr. Mirko Meboldt
Product Development
Group, D-MAVT

Doctoral students in track

D-PHYS; 2
D-ITET; 4
D-MATL; 8
D-CHAB; 5
D-HEST; 4
D-BAUG; 5
D-MAVT; 18

ETH 3D-printed polymer truss lattice (based on bitruncated octahedral unit cells).

Materials — Innovation — Processes — Design

Compliant Mechanism: Elmiger, Danun, Meboldt

3 Events and Courses

Current and past events

- Workshop on scientific storytelling
- MaP Distinguished Lecture Series "Additive Manufacturing"
- SAMCE: Swiss Advanced Manufacturing Community Events

→ **www.doctoral-school.ethz.ch/events**

4 Impressions

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