VI International Conference on Simulation for Additive Manufacturing, SIM-AM 2027
September 13-16, 2027, Weimar, Germany

THE INFLUENCE OF INTERFACES ON THE MECHANICAL BEHAVIOR IN ADDITIVE MANUFACTURING

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ABSTRACT

Additive Manufacturing creates by its nature interfaces in the manufactured part and these interfaces have a determinant influence on its mechanical behaviour [1]. Interface geometry is often complex to capture and describe and the intrinsic mechanical behaviour of interfaces is challenging to characterize (stiffness, strength, fracture evolution), especially for multi-material scenarios. This session welcomes contributions that focus on (i) the proper representation of interfaces both in terms of geometrical modelling and non-linear interface properties characterization, (ii) on the influence of process parameters on the interface quality and on their design by tailoring their geometry and properties [2], as well as (iii) contributions that shed light onto their influence on the mechanical behaviour of additively manufactured parts.

REFERENCES

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