

EUROMAT 2021

EUROPEAN CONGRESS AND EXHIBITION
ON ADVANCED MATERIALS AND PROCESSES

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12. - 16. SEPTEMBER 2021

GRAZ, AUSTRIA

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THE AUSTRIAN SOCIETY FOR
METALLURGY AND MATERIALS

FEMS 30
FEDERATION OF EUROPEAN
MATERIALS SOCIETIES 1987 - 2017
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Area D: Characterization and Modelling

Symposium D10:

Title: Modelling of additive Manufacturing		
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Abstract		
<p>The symposium is dedicated to modelling and simulation of material specific aspects in Additive Manufacturing (AM). The overall topics of interest include, but are not restricted to:</p> <ul style="list-style-type: none">• Modelling of AM processes• Modelling of AM microstructure• Modelling of AM material properties• Modelling of AM component properties <p>Processes can entail, but are not restricted to: Metal AM, AM in polymers, AM in ceramics, Large scale AM in for example concrete.</p> <p>Generic model topics can include, but are not restricted to</p> <ul style="list-style-type: none">• Heat transfer• Fluid flow• Metallurgical aspects• Thermomechanics <p>Several length scales can be considered from micro-scale over meso-scale to part-scale models. Both multi-physics as well as reduced order models, for example based on inherent strain or analytical solutions, are welcome.</p> <p>Topology and shape optimization with the sole purpose of obtaining optimal designs for use will not be included. Optimization aiming at design for manufacturing including material constraints will be welcome.</p>		