



Special Issue Reprint

## Modeling, Simulation and Data Processing for Additive Manufacturing

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Additive manufacturing (AM) or, more commonly, 3D printing is one of the fundamental elements of Industry 4.0. and the fourth industrial revolution. It has shown its potential example in the medical, automotive, aerospace, and spare part sectors. Personal manufacturing, complex and optimized parts, short series manufacturing and local ondemand manufacturing are some of the current benefits. Businesses based on AM have experienced double-digit growth in recent years. Accordingly, we have witnessed considerable efforts in developing processes and materials in terms of speed, costs, and availability. These open up new applications and business case possibilities all the time, which were not previously in existence.

Most research has focused on material and AM process development or effort to utilize existing materials and processes for industrial applications. However, improving the understanding and simulation of materials and AM process and understanding the effect of different steps in the AM workflow can increase the performance even more. The best way of benefit of AM is to understand all the steps related to that—from the design and simulation to additive manufacturing and post-processing ending the actual application.

The objective of this Special Issue was to provide a forum for researchers and practitioners to exchange their latest achievements and identify critical issues and challenges for future investigations on "Modeling, Simulation and Data Processing for Additive Manufacturing".



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