Process chain modeling and selection in an additive manufacturing context - DTU Orbit (08/11/2017)

Process chain modeling and selection in an additive manufacturing context

This paper introduces a new two-dimensional approach to modeling manufacturing process chains. This approach is used to consider the role of additive manufacturing technologies in process chains for a part with micro scale features and no internal geometry. It is shown that additive manufacturing can compete with traditional process chains for small production runs. Combining both types of technology added cost but no benefit in this case. The new process chain model can be used to explain the results and support process selection, but process chain prototyping is still important for rapidly evolving fields like additive manufacturing.

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