MSE 2024

24 - 26 Sep 2024 (Darmstadt)

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Topic D: Digital Transformation

D05: Digital Circular Economy - Platforms, Models and Algorithms

Material Circularity is a big challenge in the transformation of industry. Digitalization can be a key enabler to enhance the efficiency and sustainability of the circular economy. This symposium seeks to share research results and insights about digital platforms, models and algorithms in the emerging field of the digital circular economy:

- Ontologies and knowledge graphs in context of circular economy
- Platform solutions, e.g. for sharing recycling machine capacities and resale of recycled materials
- Planning workflows of closed process and value chains including recycling
- Simulation approaches to predict the recyclability of a product
- Methods for material identification and sorting, including recognition algorithms
- Digital assistants for the improvement of material circularity
- Traceability of products to determine life cycles, contaminations and logistics
- Digital twins to enhance recyclability of multi-material solutions

The symposium is supposed to be a joint symposium between the sessions D: Digital Transforation and I: Circular Materials

Symposium Organizer


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