



CONFIDENTIAL. Limited circulation. For review only.

11th IFAC Conference on Manufacturing Modelling, Management and Control



□ Trondheim, Norway, 30 June - 3 July 2025 □

Special session: Manufacturing as a Service: Enabling and managing quantitative operations

Invited session chairs

| | | |
|-------------------------|----------------------------|--|
| Valeria Borodin | IMT Atlantique, France | valeria.borodin@imt-atlantique.fr |
| Jalil Boudjadar | Aarhus University, Denmark | jalil@ece.au.dk |
| Alexandre Dolgui | IMT Atlantique, France | alexandre.dolgui@imt-atlantique.fr |
| Cristian Duran-Mateluna | IMT Atlantique, France | cristian.duran-mateluna@imt-atlantique.fr |
| Michael Hertwig | Fraunhofer Institute IAO | michael.hertwig@iao.fraunhofer.de |
| Joachim Lentès | Fraunhofer Institute IAO | joachim.lentes@iao.fraunhofer.de |
| Frauke Schuseil | Fraunhofer Institute IAO | frauke.schuseil@iao.fraunhofer.de |
| Simon Thevenin | IMT Atlantique, France | simon.thevenin@imt-atlantique.fr |

Abstract

Supported by data, technology, and analytics, manufacturers are becoming increasingly empowered with digital capabilities, allowing them to enhance their performance at the company level. However, this is not enough in today's landscape marked by simultaneous, multifaceted challenges. The expansion of connectivity among manufacturing stakeholders is crucial. Together with other tools (e.g., digital product passports, cloud-based collaborative platforms), **Manufacturing as a Service** (MaaS) contributes to improving the responsiveness, flexibility, and scalability of manufacturing industries, while enabling *inter alia* novel forms of sustainable and circular industrial practices.

This special session welcomes contributions dedicated to helping interested parties implement MaaS and supporting the **interoperability** and **decision-making of new related operations management problems**. Contributions from both academic and industrial communities are encouraged, ranging from empirical research and industrial applications to innovative methodologies that integrate advanced technology, ontologies, prescriptive and data analytics.

Topics

The session chairs invite researchers and decision-makers from academia, industry, and government to contribute theoretical and applied research papers in areas including but not limited to the following topics:

- Semantics for supporting system interoperability between manufacturers and other stakeholders, as well as material flows.
- Ontology for matchmaking, ranking, scheduling, and batching decisions associated with the satisfaction of **on-demand needs** by shared manufacturing **resources offered as services**.
- Multi-perspective performance and risk assessment within the MaaS framework, along with metrics to express stakeholder satisfaction.
- Collaborative operations management and pricing.

Sponsors: This special session is sponsored by the ACCURATE project (<https://accurateproject.eu/>).

INVITATION CODE: 2f727

Draft papers reporting original research (limited to 6 pages in IFAC format) are welcome.

When you submit your paper to the IFAC system, you will be required the **invitation code** to associate your paper to the invited track: <https://ifac.papercept.net>

IMPORTANT DATES:

Draft papers submission deadline: **30.11.2024**

Final papers submission deadline: **28.02.2025**

Early registration deadline: **28.02.2025**

Conference website: <https://conferences.ifac-control.org/mim2025/>

Accepted papers will be published open access in Elsevier's IFAC-PapersOnLine. Post-conference special issues for extended versions of accepted papers are planned in high-ranked journals.