

**Invited Session on “Physical Internet and interconnected logistics services”
for IFAC MIM 2019**

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Session Chairs

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- *Prof. Dr. Benoit Montreuil, Georgia Institute of Technology, USA*
- *Associate Prof. Dr. Shenle Pan, MINES ParisTech, PSL-Research University, France*
- *Prof. Dr. Damien Trentesaux, Université Polytechnique Hauts-de-France, France*

Abstract

The Physical Internet (PI or π) can be defined as an open global logistics system founded on physical, digital and operational interconnectivity through encapsulation, interfaces and protocols. It aims to interconnect the currently dedicated logistics services for seamless interoperability towards global sustainable logistics system (Ballot et al. 2014, Sarraj et al. 2014). Since the first publication by Montreuil (2011), Physical Internet has been being recognised more and more as path-breaking solution to the inefficiencies of traditional proprietary logistics organisations and models. Recent research topics and papers can be found in a special issue on IJPR (Pan et al. 2017), and some literature review papers (Henrik and Andreas 2017).

The Invited Session aims at collating and presenting the recent breakthrough research focusing on the Physical Internet. We solicit high-quality papers investigating the research problems and applications related to the concept. We are inviting original contributions related, but not limited, to the following topics:

- Fundamental research for PI development (including high-quality conceptual contributions, review papers, position papers)
- ICT/IoT technology for Physical Internet
- Mathematical modelling and simulation in Physical Internet
- Physical Internet applications, new business models
- Applications of big data analytics to Physical Internet
- Interconnected and inter-operational city logistics
- Co-modal and synchro-modal transport
- Price and revenue management models in Physical Internet
- Collaborative mechanisms and protocols in Physical Internet

References

Ballot, E., B. Montreuil and R. Meller (2014). The Physical Internet: The Network of Logistics Networks. Paris, France, La documentation Française. 978-2-11-009865-8

Henrik, S. and N. Andreas (2017). "The Physical Internet – review, analysis and future research agenda." International Journal of Physical Distribution & Logistics Management **47**(8): 736-762. DOI: doi:10.1108/IJPDLM-12-2016-0353.

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