— Call for Papers —
Journal of Manufacturing Systems Special Issue on
High Performance Computing and Data Analytics for Cyber Manufacturing

Technical Focus
Rapid advances in technology are having a profound impact on not only innovation in products, but also on processes and systems supporting product realization. Advanced manufacturing has become increasingly complex, characterized as networked cyber-physical systems that are reliant on high performance computing and data analytics. The emergence of cloud computing, parallel machine learning, the Internet of Things, and cyber-physical systems represent radical changes in the means that manufacturers collect and process large volumes of data generated from manufacturing machines and processes, as well as solve compute- and data-intensive problems in manufacturing. Cyber manufacturing aims to produce high value products and components by integrating computing infrastructure, data analytics, sensing technology, and communication standards.

The objective of this special issue of the Journal of Manufacturing Systems is to publish papers that explore recent research focused on advancing the concepts, methods, tools, and applications for cyber-manufacturing. In particular, this special issue will focus on recent advances related to high performance computing and data analytics for cyber manufacturing. Specific topics of interest include, but are not limited to:

- High performance computing for subtractive and additive manufacturing processes.
- Real-time machine and process monitoring, diagnostics, and prognostics.
- Open source software applications for digital or cyber manufacturing.
- Cloud computing, wearable computing, mobile computing, and data visualization for digital factory.
- Communication standards for intelligent machines.
- MTConnect-based applications for digital manufacturing.
- Data analytics for manufacturing systems and processes.
- Cybersecurity for intelligent manufacturing systems.
- Internet-of-Things for cyber manufacturing.

Submission Guidelines
Manuscripts are due **September 30, 2016** and publication of the special issue is scheduled for **May 2017**. Manuscripts should be submitted electronically to the Journal at http://www.journals.elsevier.com/journal-of-manufacturing-systems/. If you already have an account, login as an author and select Submit Paper at the top of the page. If you do not have an account, select Submissions and follow the steps. In either case, at the Paper Submittal page, select the special issue: High Performance Computing and Data Analytics for Cyber Manufacturing. The short title of the special issue is in the form of "SI: Cyber-Manufacturing".

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