Special Issue

Railway Dynamic Simulation: Recent Advances and Perspective

Message from the Guest Editor

The rise of simulation technology replaces the direct observations, experiments, and measurements. It is obvious that simulation techniques save time and money vastly and besides make it possible to get more data about the system and its elements. This special issue welcomes original manuscripts concerning, but not limited to, use of numerical simulation in studies of phenomena, properties, processes of dynamical nature in the following issues:

- Railway vehicle dynamics in general
- Railway vehicle stability
- Curving performance
- Vehicle-infrastructure interactions
- Fatigue strength and wear of vehicle and its elements
- Comfort problems
- Track loading, durability, and maintenance
- Less conventional track-vehicle systems
- Organization of rail transport
- Railway as a transportation system
- Rail transport as subsystem (city, area, country, and world)

Keywords: numerical simulation; dynamical issues; railway vehicle dynamics; vehicle track interactions; track infrastructure; track layout; railway transportation system

Guest Editor

Prof. Dr. Krzysztof Zboiński

Faculty of Transport, Warsaw University of Technology, ul. Koszykowa 75, 00-662 Warsaw, Poland

Deadline for manuscript submissions

closed (20 August 2023)



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/129197

Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41616837734 applsci@mdpi.com

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multidimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

