Special Issue

Railway Dynamics and Ground-Borne Vibrations

Message from the Guest Editors

This Special Issue covers multiple topics related to the prediction and control vibrations induced by railway traffic, including the following:

- Reliable prediction methodologies involving different types of models (numerical, analytical, and empirical tools as well as data mining and intelligent prediction approaches);
- Numerical and/or experimental studies conducted in order to discern the main sources of uncertainty in the system;
- The performance evaluation of conventional and innovative mitigation measures;
- Discussions about the key parameters of the railway system for prediction purposes;
- The identification of performance indicators for the system;
- Ultra-low levels of vibration for laboratory facilities.

Attention will be particularly given to prediction models that can be applied by end users, providing considerable value for engineering practitioners. This Special Issue welcomes the submission of new research, case studies, projects, reviews, and state-of-the-art discussions within these topics.

Guest Editors

Dr. Aires Colaço

Dr. Hassan Liravi

Dr. Pedro Alves Costa

Deadline for manuscript submissions

20 February 2026

Vibration

an Open Access Journal by MDPI

Impact Factor 1.6
CiteScore 3.4

mdpi.com/si/228959

Vibration
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
vibration@mdpi.com

mdpi.com/journal/vibration

Vibration

an Open Access Journal by MDPI

Impact Factor 1.6
CiteScore 3.4

mdpi.com/journal/vibration

MDPI

About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Aleksandar Pavic
College of Engineering, Mathematics and Physical Sciences, University of Exeter, Kay Building, Exeter EX4 4QF, UK

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), and other databases.

Journal Rank:

CiteScore - Q2 (Engineering (miscellaneous))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 22.7 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).