



Recent Advances on Friction-Involved Dynamics

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Message from the Guest Editors

Dear Colleagues,

Friction is a ubiquitous and intricate phenomenon. When it is involved in the dynamic environment, innumerable problems arise in a variety of applications, such as the intensification of wear and fatigue, counteractive friction-induced vibration, and noise issues. Studies on the nature of friction, the dynamic analysis of friction-related vibration problems, and the development of novel numerical and control methods for dynamic friction problems all contribute to solving challenges related to friction-induced vibration. The topics of interest for this Special Issue include (but are not restricted to):

- Friction sources at the nano-, micro- and macro-scale;
- Dry friction dampers for turbine blades;
- Mechanisms of friction-induced vibration and control methods;
- Physics-induced neutral network for dynamic friction-related problems;
- Rub-impact mechanism and dynamic response of rotor system with rub-impact coupling fault;
- Any other friction-related dynamics and wear research.





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Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. *Coatings* is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. *Coatings* publishes original research articles that report cutting-edge results and review papers on the hottest topics.

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