

Special Issue

Feature Extraction and Condition Monitoring in Physics and Mechanics

Message from the Guest Editors

This special issue focuses on the scientific examinations dealing with the behavior of macroscopic systems using the statistical properties of their microscopic components. The statistical physics and mechanics covers a wide range of topics, including microscopic behavior of physical systems, quantum statistical physics, condensed matter, equilibrium and non-equilibrium, statistical thermodynamics, biological and chemical systems such as cell physics, polymer and colloids, fluid mechanics related topics including turbulence, instability and reaction dynamics as well as other interdisciplinary applications. In engineering applications, such as mechanical engineering or electronics engineering, engineers may usually consider it as the output or response of a differential system or filter of integer order under the excitation of white noise. This Special Issue encourages both original research articles and review articles, both theories and applications in advanced statistical and mathematical modeling and in-depth examinations of the physical and mechanical systems.

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About the Journal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided. There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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