Special Issue

Epidemiology of Infectious Diseases: Time-Series Analysis and Nonlinear Dynamics

Message from the Guest Editor

This Special Issue of *Reports* is dedicated to advancing our understanding of infectious diseases, including COVID-19, through time-series analysis and nonlinear dynamics. Recent epidemics have generated valuable datasets, allowing researchers to examine the various temporal structures and nonlinear properties of epidemic processes. By focusing on clinically relevant and data-driven analytical approaches, this issue aims to highlight new insights into the predictability, complexity, and mechanisms of epidemic waves that are meaningful for public health and clinical practice. We welcome submissions in (but not limited to) the following areas:

- Time-Series Analyses
- Nonlinear Dynamics of Epidemics
- Integration with Environmental and Social Drivers
- Methodological and Interdisciplinary Perspectives

We particularly encourage submissions that connect theory and practice—bridging mathematical modeling, epidemiological surveillance, and healthcare implementation. Case reports and regional studies demonstrate the power of time-series and nonlinear approaches to uncover hidden structures in infectious disease dynamics are also highly valued.

Guest Editor

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Message from the Editor-in-Chief

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