

## Special Issue

# The Mathematics of Pandemics: Applications for Insurance

### Message from the Guest Editors

In terms of financial impact, the shock to the global economy from COVID-19 has been faster and more severe than the 2008 global financial crisis and even the Great Depression. Unlike other rare events, such as tsunami or an earthquake, a pandemic can last over relatively long periods, putting severe strain on a households' income through isolation restrictions. This Special Issue is focused on the application of mathematics for rare events such as epidemics/pandemics so that the countries are better informed and prepared for next waves or next pandemics. We are interested in a wide range of topics, including, among others, mortality modelling and economic impact for pandemics, epidemic compartmental models, group testing, optimal strategies for lockdowns, outlier detection for pandemic-related data and design of new insurance protection products.

- COVID-19
- pandemics
- insurance mathematics
- catastrophe risk
- social protection

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### Guest Editors

Dr. Carmen Boado Penas  
Dr. Julia Eisenberg  
Dr. Sule Sahin

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### Deadline for manuscript submissions

closed (31 December 2022)



## Mathematics

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## About the Journal

### Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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### Editor-in-Chief

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