

## Special Issue

# Deep Learning and Machine Learning Mathematical Models for Computer Assisted Diagnostic Systems, 2nd Edition

### Message from the Guest Editors

Machine and deep learning algorithms have recently seen broad use in computer-assisted diagnostic systems due to their dramatic advances in image analysis, computer vision, and time-series analysis. Their potential to transform computer-aided diagnosis spans a wide variety of areas that range from medical disease diagnostics and classification, through mechanical systems condition monitoring, to diagnosis for chemical industries, as well as structural health diagnosis of different structures as bridges, wind turbines, or buildings. This Special Issue calls for innovative work that explores recent advances, prospects, and challenges in AI applications to reduce the chances of either missing, misclassifying, or overdiagnosing suspicious targets on diagnostic, as well as to propel the path into computer-assisted prognostics. The keyword "diagnostic" has to be understood in a wide sense: medical, mechanical systems, civil engineering, chemical processes, and so on. The targeted audience includes both academic researchers and industrial practitioners. The aim is to provide a platform to enhance interdisciplinary research and share innovative ideas in related fields.

### Guest Editors

Prof. Dr. José Rodellar  
Prof. Dr. Francesc Pozo  
Dr. Yolanda Vidal

### Deadline for manuscript submissions

closed (30 November 2025)



## 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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