

Special Issue

Advances in Inverse Problems and Imaging

Message from the Guest Editors

Inverse problems are an emerging area of applied mathematics with many applications in various disciplines, such as physics, engineering and medical sciences. Especially in the field of medical imaging, many works, both theoretical and numerical, have been presented in recent years that have attracted much interest. The main objectives are either qualitatively dealing with the improvement of the quality of the tomographic images, or quantitatively, where one is interested in recovering material parameters from the measured data. Both cases are important and may lead to the early diagnosis of deceases. Mathematically speaking, we are interested in modelling the interaction of the sample with the penetrating wave, with it being either acoustic or optical. Once the model is derived, the corresponding inverse problem has to be solved. However, due to limited measurement data, this problem is usually ill-posed and special regularization techniques are needed.

Guest Editors

Dr. Leonidas Mindrinos

Department of Natural Resources Development and Agricultural Engineering, Agricultural University of Athens, 11855 Athens, Greece

Dr. Nicholas Polydorides

Computational Engineering, School of Engineering, University of Edinburgh, Edinburgh, UK

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Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

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