



Advances in Inverse Problems and Imaging

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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.





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Message from the Editor-in-Chief

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