



Inverse Problems with Partial Data

Guest Editors:

Dr. Qin Li

Department of Mathematics,
University of Wisconsin-Madison,
Madison, WI 53705, USA

Dr. Li Wang

School of Mathematics,
University of Minnesota,
Minneapolis, MN 55455, USA

**Dr. Leonardo Andrés Zepeda
Núñez**

Department of Mathematics,
University of Wisconsin-Madison,
Madison, WI 53705, USA

Deadline for manuscript
submissions:

closed (20 November 2021)

Message from the Guest Editors

Inverse problems are ubiquitous in science and engineering. In nearly all engineering applications, measurements are taken to infer parameters in certain partial differential equation models that are used to describe the dynamical systems in the forward setting. While the full measurements are ideal for the reconstruction of parameters, in real applications, only partial data, mostly polluted, are available. It is of great significance to theoretically understand the impact of partial polluted data and numerically recover the unknown.

In this Special Issue (SI), we collect several contributions addressing the state-of-art research on this topic. For the numerical aspects, the SI addresses emerging tools from data science, optimization, Bayesian sampling, and machine learning. For the theoretical aspects, it discusses multiple topics, such as stability deterioration due to the partial data, CGO solutions, and qualitative methods. The applications of these methods range from biomedical imaging, geophysics to atmospheric science. The issue provides various angles to examine systems with unknown parameters when only partial information can be measured.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Ali Cemal Benim

Center of Flow Simulation (CFS),
Department of Mechanical and
Process Engineering, Duesseldorf
University of Applied Sciences, D-
40476 Duesseldorf, Germany

Message from the Editor-in-Chief

You are invited to submit the results of your research for consideration and publication in *Computation*, an international open access journal, which is published quarterly online by MDPI.

The editorial board and staff of *Computation* are dedicated to establishing a benchmark journal for the world scientific and engineering communities for original research articles, reviews, conference proceedings (i.e., peer reviewed full articles), and communications, in the cutting-edge areas of computational biology, computational chemistry, and computation in engineering.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, ESCI (Web of Science), CAPlus / SciFinder, Inspec, dblp, and other databases.

Journal Rank: CiteScore - Q2 (*Applied Mathematics*)

Contact Us

Computation Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/computation
computation@mdpi.com
[X@ComputationMDPI](https://twitter.com/ComputationMDPI)