

## Special Issue

# Probabilistic Methods for Inverse Problems

### Message from the Guest Editor

Inverse problems arise in many applications. Whatever the domain of application, when the unknown quantities on which we want to infer, and the quantities on which we can do measurements, and the mathematical relations linking them are identified, the problem then become inference. Deterministic regularization methods have been successfully developed and used. Two main difficulties still remain: How to choose the different criteria and how to weight them and how to quantify the uncertainties. In the three last decades, the probabilistic methods and, in particular, the Bayesian approach have shown their efficiency. The focus of this Special Issue is to have original papers on these probabilistic methods where the real advantages on regularization methods have been shown. The papers with real applications in different area such as biological and medical imaging, industrial nondestructive testing, radio astronomical, and geophysical imaging are preferred.

### Guest Editor

Prof. Dr. Ali Mohammad-Djafari

Laboratoire des Signaux et Système, CNRS CentraleSupélec,  
Université Paris-Saclay, 3, Rue Joliot-Curie, 91192 Gif-sur-Yvette,  
France

### Deadline for manuscript submissions

closed (30 September 2018)



## Entropy

an Open Access Journal  
by MDPI

Impact Factor 2.1  
CiteScore 4.9  
Indexed in PubMed



[mdpi.com/si/8775](https://mdpi.com/si/8775)

*Entropy*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[entropy@mdpi.com](mailto:entropy@mdpi.com)

[mdpi.com/journal/  
entropy](https://mdpi.com/journal/entropy)





# Entropy

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.1  
CiteScore 4.9  
Indexed in PubMed



[mdpi.com/journal/  
entropy](https://mdpi.com/journal/entropy)



## About the Journal

### Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

*Entropy* is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

---

### Editor-in-Chief

Prof. Dr. Kevin H. Knuth

Department of Physics, University at Albany, 1400 Washington Avenue,  
Albany, NY 12222, USA

---

### Author Benefits

#### Open Access:

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

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, PubMed, PMC, Astrophysics Data System, and other databases.

#### Journal Rank:

JCR - Q2 (Physics, Multidisciplinary) / CiteScore - Q1 (Mathematical Physics)