



*sensors*



an Open Access Journal by MDPI

## Computational Electromagnetics in Remote Sensing: Wave Propagation and Scattering in Disordered Media

Guest Editors:

**Dr. Hosam El-Ocla**

Lakehead University, Thunder  
Bay, ON P7B 5E1, Canada

**Prof. Dr. Kun-Shan Chen**

College of Geomatics and  
Geoinformation, Guilin University  
of Technology, Guilin 541004,  
China

**Prof. Dr. Yang Du**

School of Information and  
Electronic Engineering, Zhejiang  
University, Hangzhou 310058,  
Zhejiang, China

Deadline for manuscript  
submissions:

**closed (20 February 2023)**

### Message from the Guest Editors

Dear Colleagues,

This comprehensive Special Issue is intended mainly to cover remote sensing of objects in disordered media, including advanced wave propagation and scattering topics, as well as computational methods for waves in random media and rough surfaces. These topics have a domain of implications on the design and manufacture approaches of many civil and military systems that emit radiation to fulfill their operation efficiently. The primary focus of this issue is on realistic models of practical applications in radio wave propagation, remote sensing, optics, and scattering in free space and inhomogeneous random media, such as turbulence, ocean, rain, fog, and composite materials. Studying the effects of these media on scattering waves would essentially enhance the understanding of the behavior of wave measurements such as RCS (monostatic and bistatic) and backscattering enhancement to improve the functional capability of considered systems. Novel techniques that solve scattering problems, in addition to analytical and numerical models describing complex media, are of particular interest.

Prof. Dr. Hosam El-Ocla

Prof. Dr. Kun-Shan Chen

Prof. Dr. Yang Du

*Guest Editors*



[mdpi.com/si/82190](https://mdpi.com/si/82190)

# Special Issue



*sensors*



an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Vittorio M. N. Passaro**

Dipartimento di Ingegneria  
Elettrica e dell'Informazione  
(Department of Electrical and  
Information Engineering),  
Politecnico di Bari, Via Edoardo  
Orabona n. 4, 70125 Bari, Italy

## Message from the Editor-in-Chief

*Sensors* is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. *Sensors* organizes Special Issues devoted to specific sensing areas and applications each year.

## Author Benefits

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

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Ei Compendex](#), [Inspec](#), [Astrophysics Data System](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Instruments & Instrumentation*) / CiteScore - Q1 (*Instrumentation*)

## Contact Us

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

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sensors](http://mdpi.com/journal/sensors)  
[sensors@mdpi.com](mailto:sensors@mdpi.com)  
[X@Sensors\\_MDPI](#)