



## Whole Body MRI: Restoration and Analysis with Signal/Image Processing Principles

Guest Editors:

**Dr. Stathis Hadjidemetriou**

1. Applied Computer Science,  
Cyprus International Institute of  
Management, Akadimias Avenue  
21, Nicosia 2107, Cyprus  
2. Department of Biological  
Sciences, University of Cyprus,  
Nicosia 1678, Cyprus

**Dr. Ismini E Papageorgiou**

Institute of Radiology, Südharz  
Hospital Nordhausen, Academic  
Hospital of Jena University  
Hospital, Friedrich-Schiller  
University of Jena, Dr.-Robert-  
Koch Street 39, 99734  
Nordhausen, Germany

Deadline for manuscript  
submissions:

**closed (31 January 2024)**

### Message from the Guest Editors

Dear Colleagues,

Whole-body MRI (WB-MRI) has a large field-of-view (FoV) that covers the entire body. Due to its broad data acquisition in high anatomical resolution, WB-MRI is a competitive image expedition tool to both cover conventional clinical needs and enable novel observations. Current indications span over a spectrum of physiology and pathology. An example for physiology is the monitoring of the body elemental compartments using fat and muscle segmentation in sports medicine applications. An expanding list of indications for WB-MRI in clinical oncology and the evidence collected so far argument towards a future first-line indication of WB-MRI in cancer staging and follow up. Implementations for bone metastatic disease detection reveal equal or higher sensitivity and specificity of the WB-MRI compared to classical radiation-base methods such as the bone scans with Tc99m-based radiopharmaceuticals and positron emission tomography CT (PET-CT). Thus, MRI with T<sub>1</sub>-weighting, T<sub>2</sub>-weighting and other contrasts offers a screening solution with high anatomical resolution, free of ionizing radiation and, eventually, free of Contrast Enhancing (CE) agents...





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Santiago Marco

1. Department of Electronics and Biomedical Engineering, University of Barcelona, Martí I Franqués 1, 08028 Barcelona, Spain  
2. Signal and Information Processing in Sensor Systems, Institute for Bioengineering of Catalonia, The Barcelona Institute of Science and Technology, Baldiri Rexac 10-12, 08028 Barcelona, Spain

## Message from the Editor-in-Chief

Our primary goal is to encourage scientists and engineers to publish their theoretical results and developed methods in as much detail as possible. There is no limit to the maximum length of papers. Whenever possible, authors are encouraged to provide relevant data and developed code so that the results can be reproduced. Our goal is to provide a platform for scientists and engineers to share new approaches to signal processing in various application domains.

## Author Benefits

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

**High Visibility:** indexed within [Scopus](#), [ESCI \(Web of Science\)](#), [Inspec](#), and [other databases](#).

**Rapid Publication:** manuscripts are peer-reviewed and a first decision is provided to authors approximately 26.1 days after submission; acceptance to publication is undertaken in 4.9 days (median values for papers published in this journal in the first half of 2024).

## Contact Us

---

Signals Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

[mdpi.com/journal/signals](http://mdpi.com/journal/signals)  
[signals@mdpi.com](mailto:signals@mdpi.com)  
[X@Signals\\_MDPI](https://twitter.com/Signals_MDPI)