Special Issue

Multimodal Imaging for Radiotherapy: Latest Advances and Challenges

Message from the Guest Editor

Nanoparticles have emerged as a promising tool for multimodal imaging in radiotherapy due to their ability to be engineered with multiple imaging modalities and therapeutic agents. Multimodal imaging is an approach that combines different imaging techniques to obtain a more complete and accurate representation of a patient's anatomy and pathology. In radiotherapy, multimodal imaging is used to precisely locate and target cancerous tissue, while minimizing exposure to healthy tissue. The following are some of the ways in which nanoparticles are used for multimodal imaging in radiotherapy:

- Computed tomography (CT)
- Magnetic resonance imaging (MRI)
- Positron emission tomography (PET)
- Single-photon emission computed tomography (SPECT)
- Ultrasound

By combining these imaging modalities, radiation oncologists can obtain a more comprehensive understanding of a patient's anatomy and the extent of the cancerous tissue, allowing for a more precise and effective treatment plan. This approach can also help to reduce the risk of complications and side effects associated with radiotherapy, as healthy tissue is less likely to be affected.

Guest Editor

Dr. Arif Gulzar

Center for Advanced Imaging, University of Queensland, Brisbane, QLD 4072, Australia

Deadline for manuscript submissions

closed (30 December 2023)

Journal of Imaging

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 6.7
Indexed in PubMed

mdpi.com/si/165192

Journal of Imaging
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jimaging@mdpi.com

mdpi.com/journal/jimaging

Journal of Imaging

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 6.7
Indexed in PubMed

mdpi.com/journal/jimaging

About the Journal

Message from the Editor-in-Chief

The imaging term, specific with journal, is to be considered in its broadest sense. Image processing, image understanding and computer vision are all terms related to imaging acquisition, its processing and the extraction of relevant information from the scene to obtain the underlying knowledge. All tasks related to the above items are oriented toward specific applications in a broad range of areas and topics. The *Journal of Imaging* is conceived as an efficient vehicle in the scientific community for the communication and transmission of the progress and research results in the topics covered.

Editor-in-Chief

Prof. Dr. Raimondo Schettini
Department of Informatics, Systems and Communication, University of Milano-Bicocca, viale Sarca, 336, 20126 Milano, Italy

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), PubMed, PMC, dblp, Inspec, Ei Compendex, and other databases.

Journal Rank:

JCR - Q2 (Imaging Science and Photographic Technology) / CiteScore - Q1 (Radiology, Nuclear Medicine and Imaging)