



tomography



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Leveraging Radiomics for Computational Inference Advances in Oncology

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Message from the Guest Editors

A wide spectrum of Artificial Intelligence and Machine Learning solutions is currently available to provide access to image-driven data critical to fields such as oncology. These developments have fueled the radiomics field, providing new complementary information for cancer diagnosis therapy, prognosis. The use of predictive learning models has greatly facilitated the combination of radiomic detections with other informative markers to the benefit of clinical decision making.

Despite the promising results emerging from radiomics, some limitations remain to be addressed in order to optimize the inference processes in oncology. The selected features are required to satisfy criteria such as i) repeatability with regard to acquisitions and used parameters, within the same imaging modality, ii) reproducibility of results across changing parameters, depending on the measurement system of choice, iii) transferability of evidence over patient groups, and iv) generalizability of findings across cancer types.



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