Special Issue

Image Segmentation in Radiation Oncology: Challenges and Progress

Message from the Guest Editor

The main topic of this issue will be the current progress and challenges of medical image segmentation in facilitating workflow in radiation oncology. Medical imaging has been progressively integrated into every stage of radiation oncology. Novel imaging modalities are being introduced in this field to meet unique clinical needs. The increasingly high involvement of medical images potentially enables advanced clinical applications, while most of them require timely and accurate localization and delineation of the regions of interest, such as lesions and organs. Auto-segmentation has been investigated for decades with the aim of achieving fast, precise, and consistent performance. Recent years have witnessed the trend of deep learning being increasingly used in the application of medical imaging segmentation. The latest networks and techniques have been borrowed from the field of computer vision and adapted to specific segmentation tasks in radiation oncology. Although promising results have been shown in various applications, there are some open questions to be answered in future studies.

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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