Editorial

Special Issue on "Medical Imaging and Image Processing"

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Over the last decade, **Medical Imaging** has become an essential component in many fields of bio-medical research and clinical practice. Biologists study cells and generate 3D confocal microscopy data sets, virologists generate 3D reconstructions of viruses from micrographs, radiologists identify and quantify tumors from MRI and CT scans, and neuroscientists detect regional metabolic brain activity from PET and functional MRI scans. On the other hand, **Image Processing** includes the analysis, enhancement, and display of images captured via various medical imaging technologies. Image reconstruction and modeling techniques allow instant processing of 2D signals to create 3D images. In addition, image processing and analysis can be used to determine the diameter, volume, and vasculature of a tumor or organ, flow parameters of blood or other fluids, and microscopic changes that have not previously been discernible.

This special issue focuses on the state-of-the-art methods and technologies in medical imaging and image processing. The topics include, but are not limited to:

- medical imaging (CT, PET, MRI, SPECT, Ultrasound, *etc*.)
- biological imaging (optical imaging, molecular imaging, microscopy, hyperspectral imaging, *etc*.)
- computerized tomography
- image processing and analysis
- machine learning
- pattern recognition

We hope the authors share their latest research results in this special issue, and look forward to working with you to make it a comprehensive view of the area of medical imaging and image processing.