



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

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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 T₁-weighting, T₂-weighting and other contrasts offers a screening solution with high anatomical resolution, free of ionizing radiation and, eventually, free of Contrast Enhancing (CE) agents...





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Message from the Editor-in-Chief

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