



BioMed Research International

Special Issue on  
**Advances in MRI Techniques and Applications**

# CALL FOR PAPERS

The past decade has witnessed a rapid development and wide proliferation of MR imaging techniques. The technical development is marked not only by the improvement and optimization of conventional MR imaging techniques but also by the emerging of new modalities such as MRE and DWIBS (diffusion-weighted whole-body imaging with background body signal suppression) and new techniques such as compressed sensing MRI and chemical exchange saturation transfer MRI (CEST-MRI). The wide proliferation of MRI techniques has led to ever-increasing applications of MR imaging and enormous new findings in basic biomedical research as well as clinical sciences. This special issue aims at reflecting the advances in MR imaging techniques and applications. We invite investigators to contribute original research articles in a wide range of fields related to the techniques and applications of MR imaging. We also welcome review articles.

Potential topics include, but are not limited to:

- ▶ Advances in MRI techniques:
  - ▶ Fast data acquisition and image reconstruction: New pulse sequences, parallel imaging, compressed sensing, and multiband acquisition
  - ▶ Postprocessing: denoising, artifacts correction, segmentation, registration, and classification
  - ▶ Quantitative MRI techniques: Relaxometry, arterial spin labeling (ALS), and magnetic resonance spectroscopy imaging (MRSI)
  - ▶ Multimodal MR techniques: Anatomical and functional MRI, diffusion tensor imaging (DTI), ALS, susceptibility weighted imaging (SWI), etc.
  - ▶ Multicoil techniques: Multichannel receiver coil and multichannel transmit coil
  - ▶ Emerging techniques: Magnetic resonance elastography (MRE), chemical exchange saturation transfer MRI (CEST-MRI), magnetic resonance fingerprinting (MRF), DWIBS, and 4-dimensional MRI (4D MRI)
- ▶ Advances in MRI applications:
  - ▶ Brain connectivity and brain function
  - ▶ Neuroimaging for brain development, mental disorder, and degenerating disease
  - ▶ MRI-guided radiation therapy
  - ▶ DWIBS in cancer diagnoses, differentiation, and grading
  - ▶ Body imaging: abdominal, cardiovascular, musculoskeletal, lung, liver, breast, and prostate
  - ▶ Applications of multimodal MRI techniques such as MRI, DWI, perfusion weighted imaging (PWI), SWI, MRE, magnetic resonance angiography (MRA), and MR mammography (MRM)
  - ▶ Applications of multimodal imaging techniques such as PET/MRI and CT/MRI

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