

Special Issue on

## State-of-the-art Digital Imaging in Dentistry: Advanced Research of MRI, CT, CBCT, and Digital Intraoral Imaging

# CALL FOR PAPERS

In medical imaging modalities, particularly high-performance MRI and CT scanners have been developed one after another with the progress of computers. Based on the technology, a new diagnosis also has been introduced. Functional as well as anatomical structural diagnosis became routinely performed in many university hospitals and large hospital facilities.

On the other hand, in dentistry, the development of digital intraoral radiography using digital technology (e.g., photostimulable phosphor plate and CCD sensor) and dental CBCT having high spatial resolution has advanced and those enable depicting the microstructure of hard tissues including teeth and jaws specific to dentistry. However, the application of high-performance modalities routinely used in medicine to dentistry is considered to be insufficient because it is very difficult to have a chance to use the most advanced modalities. There is a clear difference between medical and dental fields. In dentistry, the main target is a hard tissue including teeth and bone and detailed diagnosis based on microstructure is required. The diagnostic modalities must have a very high spatial and contrast resolution. Thus, research on imaging modality in dentistry is unique and differs from those in medicine.

This special issue aims to focus on these most advanced imaging modalities with a new innovative technology and to improve dental diagnosis by broadening the use of the modalities in dentistry.

Potential topics include but are not limited to the following:

- ▶ Application of new technology of MR and CT scanners to dental diagnosis
- ▶ Performance and technology of advanced MR and CT scanners
- ▶ Application of software reducing metal artifact in CT to dentistry
- ▶ Microstructural analysis of ultrahigh strength MR scanner
- ▶ Current status of digital intraoral radiography
- ▶ Basic research of digital intraoral detectors: photostimulable phosphor plate (PSP), CCD sensor, and C-MOS sensor
- ▶ Development of new diagnosis methods using CBCT
- ▶ Application of flat panel detector (FPD) to dentistry

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/radiology/cbct/>.

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