IEEE Transactions on Radiation & Plasma Medical Sciences

Special issue on
Machine learning in radiation based medical sciences
Call for papers

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Guest Editors

Machine learning is a very active field of research that has found numerous applications in various fields of medical sciences, from image reconstruction or dosimetry, to image analysis and processing. In the last few years, the field of machine learning has also seen the fast development and impressive results of deep learning based techniques.

IEEE TRPMS publishes original and high-impact work on radiation- and plasma-related technologies for medical applications, including radiation detectors, imaging instrumentation, radiation-based image reconstruction, data analysis and image processing, clinical/preclinical evaluation of imaging systems. Given the increasing interest of the scientific community in the field of machine learning a special issue on machine learning applications in radiation medical sciences will be published by IEEE TRPMS in 2018.

We would like to invite authors to submit papers related to the use of established or newly developed machine learning techniques to applications related to radiation medical sciences. The topics include but are not limited to:

- X-ray CT, Dual-/multi-energy CT, PET, PET/CT and PET/MR static and dynamic imaging
- Image reconstruction and estimation
- Multimodality fusion and association
- Dosimetry, planification
- Image processing (denoising/filtering, partial volume effects correction, artifacts correction…)
- Image segmentation and classification
- Image analysis and characterization, radiomics, radiogenomics

Authors must submit papers digitally according to https://mc.manuscriptcentral.com/trpms, indicating that the submission is aimed for this special issue in the cover letter. Authors are encouraged to contact the guest editors to determine suitability of their submission for this special issue.

Guest Editors:

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Schedule:

Submission of manuscripts: Nov. 15, 2017
Acceptance/rejection notification: Feb. 1, 2018
Revised manuscripts due: April 1, 2018
Publication: July 1, 2018 (Tentatively)