

Special issue on
Dedicated Clinical Brain Imaging Systems

Call for papers

Guest Editors
BF Hutton, T Yamaya, LR Furenlid

There has been a resurgence of interest in the development of dedicated brain imaging systems that employ the techniques of PET, SPECT, PET/CT, SPECT/CT, PET/MR and SPECT/MR in order to increase understanding of how the brain works as well as to perform advanced clinical diagnostic tasks and/or assess response to therapy for a variety of conditions. A recent well-attended workshop at the 2017 IEEE NSS/MIC meeting in Atlanta highlighted this growing interest. This motivated us to propose a special issue of *IEEE Transactions of Radiation and Plasma Medical Science*, as a forum for the dissemination of visions and recent achievements that are driving this area of research and development and its application. You are therefore invited to submit relevant papers to this special issue on topics that include, but are not limited to, the following:

- The clinical perspective on what is needed for both clinical research and clinical practice
- The state of the art in hardware designs for SPECT and PET
- Dealing with issues that affect image quality and quantification such as patient motion, partial volume effects etc
- Optimal extraction of pharmacokinetic parameters from dynamic data, including 4D image reconstruction
- Trends in tracer development
- Strategies for assessing and achieving optimal image quality

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

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Schedule:

Submission of manuscripts:	Apr 1, 2018
Acceptance/rejection notification:	Jun 1, 2018
Revised manuscripts due:	Aug 1, 2018
Publication:	Nov 2018 (Tentative)