

Vienna, Austria

Annual Congress of the
European Association of Nuclear Medicine

October 21 –25, 2017
Vienna, Austria

Do.MoRe: Joint Educational Symposium (EANM/AAPM)

Tuesday, October 24, 14:30-16:00

Session Title

PET Auto-Segmentation: Review and Evaluation Strategies - Insights from AAPM Task Group No. 211

Chairs

Assen Kirov (AAPM, New York)

Ralph Buchert (Hamburg)

Programme

- 14:30 - 15:00 Assen Kirov (AAPM, New York): Components of a Standard and a Procedure for Evaluation of PET-AS Methods
- 15:00 - 15:30 Mathieu Hatt (AAPM, Brest): State-of-the-Art of Current PET-AS Algorithms and their Advantages and Limitations for Clinical Application
- 15:30 - 16:00 Elisabetta DeBernardi (Milan): Design, Implementation and First Results of the Future Standard for Evaluation of PET-AS Methods

Educational Objectives

- This educational session will provide an overview of the present state-of-the-art PET auto-segmentation (PET-AS) algorithms with an emphasis on understanding the challenges and pitfalls associated with implementing a PET-AS algorithm.
- The different types of PET-AS algorithms will be briefly described and their advantages and limitations will be highlighted. The dependence on application as well as on the scanner and radiotracer used will be discussed.
- The available image datasets and metrics for evaluation of PET-AS algorithms will be introduced. An implementation of some of these image datasets and metrics in a benchmark, which is a candidate for a PET-AS evaluation standard, will be presented.
- A procedure for algorithm acceptance and implementation as well as the complementary role of manual and auto-segmentation will be discussed.