

CME Session 2

Physics committee

Wednesday, October 20, 12:00-13:30

Session Title

AI in Radiomics

Chairperson

Catherine Cheze Le Rest (Poitiers, France)

Programme

- 12:00 - 12:25 Vincent Jaouen (Plouzane, France): Challenges in Multi-Center Trials Using Radiomics Models - The Role of AI Based Harmonisation
- 12:25 - 12:45 Martina Sollini (Milan, Italy): AI and Radiomics for Oncology Applications
- 12:45 - 13:05 Christoph Rischpler (Essen, Germany): Potential Role of AI and Radiomics in Cardiac Imaging
- 13:05 - 13:25 Ralph Buchert (Hamburg, Germany): What May AI and Radiomics Bring in Neuroimaging?
- 13:25 - 13:30 Session Summary by Chairperson

Educational Objectives

1. Latest advances in the field of methodological developments for AI in radiomics based modelling
2. Become familiar with the latest developments in the field of AI and radiomics concerning the different major clinical application fields of Nuclear Medicine based imaging

Summary

The evolution of machine learning approaches with the introduction of deep learning techniques, has led to an exponential increase in the use of Artificial Intelligence in a variety of application areas, including the healthcare field. On the other hand, multiparametric modelling based on radiomics is becoming increasingly mature in the field of multimodality imaging but it is still not a clinical reality. Within this context, AI can have a major impact in the overall radiomics modelling framework and overcome a few obstacles and bottlenecks to establishing the use of radiomics in routine clinical practice. This CME session will discuss the latest advances in this field and provide an insight on the potential interest of AI in radiomics from a clinical perspective.

Key Words

AI, radiomics, image analysis, multi-center trials, oncology, neuroimaging, cardiac imaging