

ESNM Webinar Series on basic NM

Basic PET physics and instrumentation

Part 1

Target audience

This webinar is dedicated to clinicians and to physicists that are willing to improve or consolidate the basic physics behind Positron Emission Tomography and to understand how these principles have an impact in PET imaging.

Description

This presentation illustrates the physics behind PET from basic to more advanced topics, starting from the description of positron emission and annihilation processes. A particular effort is devoted to the analysis of factors limiting spatial resolution of PET including physics-related factors and technological factors. An introduction on the present technology for the construction of a PET detector is also included with a description of the scintillator materials and photodetector technologies.