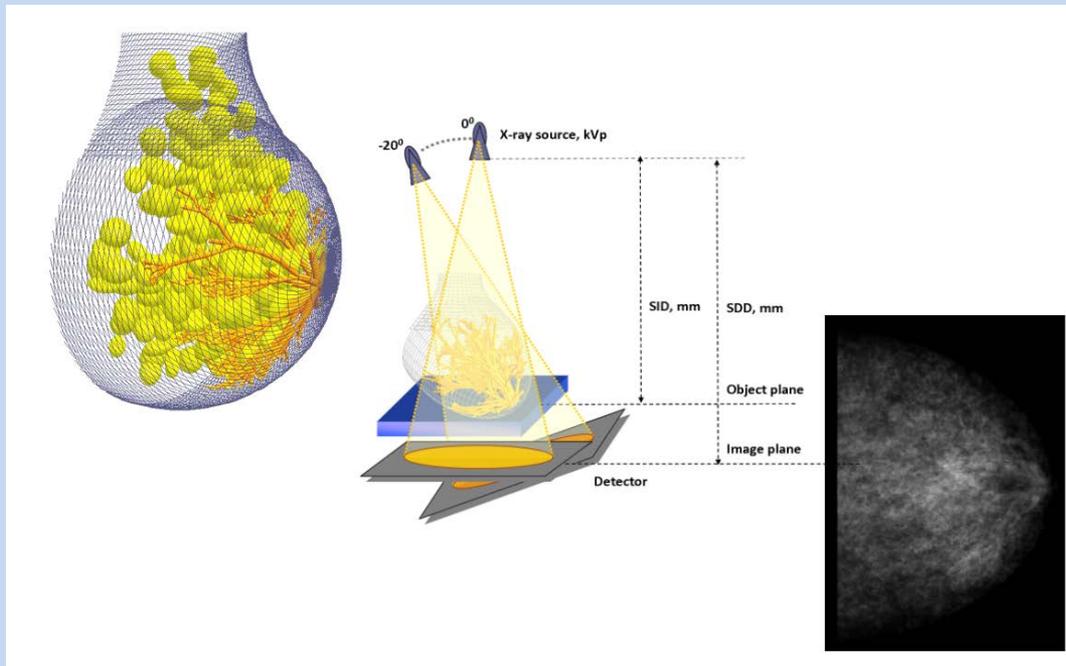


## Module MPE05

# Anthropomorphic phantoms



# Online

**Part 1. General information about the course Anthropomorphic Phantoms**

**Part 2. Anthropomorphic phantoms. Basics**

**Part 3. SW tools dedicated to X-ray imaging research**

**Part 4. Use of anthropomorphic phantoms in research**

**Part 5. Manufacturing of anthropomorphic phantoms**

# Face-to-face

Day 1. Introduction to anthropomorphic phantoms (AP)  
Design and composition of AP  
Hands on implementation of computational AP

Day 2. Application of AP for optimising and development of a clinical protocol  
Application of AP for optimising breast tomosynthesis  
Application of AP for assessing the limitations of an imaging modality

Day 3. Application of AP for assessing the limitations of an imaging modality  
Applications of AP in optimising the parameters of an existing imaging modality

Day 4. Applications of AP for design and evaluation of advanced x-ray imaging techniques  
Applications of AP for design and evaluation of advanced x-ray imaging techniques

Day 5. Applications of anthropomorphic phantoms for development and testing of image reconstruction techniques  
Computational Anthropomorphic Phantoms as Prototypes of Physical Objects

Day 6 + 7. Study + Assessment



# This is what you get...



- A module about a clearly defined topic with a practical challenge to be solved
- A state-of-the-art literature review on the topic.
- The translation of exciting fields of expertise to the reality of the hospital and the nuclear safety aspects of patients and personnel.
- The use of demonstration software and proper software tools.
- Practical sessions on how to design and evaluate anthropomorphic phantoms
- An evaluation method and evaluation moment to introduce the learners in the research domain they represent.



# Take home messages



- Anthropomorphic phantoms are valuable complementary tools in the work of the Medical Physics professionals
- Virtual clinical studies can be designed, carried out and evaluated using anthropomorphic phantoms, these studies can be used for:
  - Optimisation
  - Assessing system limitations
  - Evaluating image enhancement techniques
  - Evaluating image reconstruction techniques
  - Protocol development



# Comments from previous participants...



“The organization and the pace of activities was perfect.”

“The online phase was opened well in advance so I could study during my holidays.”

“The e-learning platform was easy to use.”

“The module leader was concerned with specific needs of every participant

“ A lot of time was devoted to practical exercises.”

“Lecturers were very kind and open for discussion and advice.”

“The assessment was well designed.”



# Group of participants

