



EUTEMPE-RX course MPE04

Innovation – Advanced diagnostic and interventional radiology: emerging technologies and challenges

Ferrara, 23th – 27th September 2019

Monday, 23th September 2019:

1. Fundamental physics of X-rays: energy, absorption and phase for innovation purposes – A. Taibi (2 hours)
2. Spectral imaging with conventional and photon counting detectors – A. Taibi (2 hours)
3. Techniques to obtain quasi monochromatic X-rays with conventional X-ray tubes – M. Gambaccini (2 hours)
4. Low-Dose CT: techniques and protocols – Speaker tbc (2 hours)

Tuesday, 24th September 2019:

1. Fundamental of Radiomics – Speaker tbc (2 hours)
2. The clinical point of view on emerging technologies and challenges – Speaker tbc (2 hours)

Visit to the X-ray facilities of the Physics and Earth Sciences Department, University of Ferrara

Wednesday, 25th September 2019:

1. High-brilliance X-ray sources based on particle accelerators – P. Cardarelli (2 hours)
2. Fundamentals of Phase-Contrast Imaging and potential diagnostic applications – R. Longo (2 hours)

Visit to a local hospital with practical sessions on state-of-the-art X-ray units and image processing

Thursday, 26th September 2019:

Exam preparation

Friday, 27th September 2019:

Participant assessment led by the faculty (A. Taibi, M. Gambaccini, P. Cardarelli, R. Longo, H. Bosmans)