## SCHOOL



## 'Imaging for Physicists'

## 29 Sept - 03 Oct 2019, Manchester, UK

I don't consider myself an expert in imaging, since I work mainly in radiotherapy; one could describe my knowledge of imaging as like a Swiss cheese with a lot of cavities. This course was perfectly designed for medical physicists who wanted to fill some gaps in their 'imaging cheese'.

The course covered a wide range of different imaging modalities [magnetic resonance imaging (MRI), positron-emission tomography (PET), computed tomography (CT), cone beam computed tomography (CBCT) and hybrids]. It was addressed to (and I dare to say it was also very enlightening for) students, medical physics trainees, senior medical physicists and professionals in other exotic fields (e.g. radio oncologists). All these professions were represented in the course.

The speakers found a perfect balance between teaching the basic principles of imaging, showing us the limits of each imaging modality and describing the latest accomplishments in research. A current topic was the hybrid technology, magnetic resonance-linear accelerator (MR-Linac). Imaging in external beam radiotherapy (EBRT) for photons and protons and MRI in brachytherapy was also very well covered by the experts on site. Two clinicians diligently showed us the importance of closing the gap between the technical and medical fields of our work. My personal interest was mainly driven by my work with a MR-Linac, and this course was the ideal occasion to dig into the world of magnets, gradients and sequences. My expectations were definitely met and it was a wonderful platform to exchange and share experiences. Some of us discovered the city on our free Tuesday afternoon, and some of us were offered a highly appreciated guided tour to the recently installed MR-Linac at The Christie Hospital in Manchester.

Three important 'takeaways':

- Medical physicists need a wide overlap in knowledge of imaging and radiotherapy;
- Imaging can be fun even for a radiotherapy medical physicist;
- Manchester is the city where it rains the most in England.

As discussion intensified on the MRI gradient coils, the rain gradient changed steadily from very rainy to no rain to almost sunny.

The ESTRO course will immediately affect my work and I left Manchester with a lot of ideas, considerations and most of all really good memories. This course should be on everyone's bucket list!

Many thanks to the whole imaging ESTRO team and thank you very much for the warm welcome and the unforgettable time in Manchester!



Michael Baumgartl Medical physicist University Hospital Zuri\_ch Zurich, Switzerland Michael.Baumgartl@usz.ch