



CONFERENCES

3rd Ion Imaging Workshop

13 - 14 October 2022, Munich, Germany



Ion imaging is closely tied to the field of radiation therapy using protons or heavier ions, where exploitation of the Bragg peak of such particles entails highly conformal dose distributions allowing optimal tumour dose delivery while sparing organs at risk. The high conformity comes at the cost of sensitivity to anatomical changes or patient misalignments on the treatment table. While x-ray imaging allows verification of anatomical positioning, the requirement to convert photon attenuation coefficients to ion stopping power to allow dose calculation has spurred efforts to use ions directly for imaging.

Half a century after Cormack proposed using ions for tomographic imaging, both radiography and tomography methods are now being developed, but the field is nascent and is still striving towards clinical implementation. Several areas of investigation have emerged, including tomographic reconstruction methods, radiography-based setups, tomography-based setups, energy integrating vs ion counting approaches, small animal imaging systems, imaging with heavier ions than protons, foreseen clinical impact, and more.

We are happy to announce that all these topics and more are expected to be covered at the **3rd Ion Imaging Workshop** which will be held **13 - 14 October 2022 in Munich**. The on-site event is a continuation of the 2018 Lyon and 2019 Manchester workshops, and is financially supported by the German Research Foundation and endorsed by the European Society for Radiotherapy and Oncology (ESTRO). **Abstract submission** is currently open until 15 July and registration deadline is 1 September 2022. We have 10 **invited international speakers** that have confirmed participation.

Foreseen topics

- Ion imaging systems
- Small animal systems
- Image reconstruction methods
- Combined and novel modalities
- Clinical aspects
- Theoretical investigations and modelling
- Heavier ions

The organising committee:

George Dedes, LMU Munich, Germany
Guillaume Landry, LMU Munich, Germany
Simon Rit, University of Lyon, France
Nils Krahl, University of Lyon, France
Mikael Simard, UCL, UK
Charles Antoine Collins Fekete, UCL, UK