HDR Salim Si-Mohamed

Title: "Adaptive strategies based on Artificial Intelligence for the radiotherapy of head-and-neck cancer treatment"

Abstract:

Spectral computed tomography (CT) imaging extends the capabilities of conventional CT imaging by differentiating anatomical structures based on their differences in photoelectric and Compton attenuation. The recent introduction of photon-counting detectors in photon-counting multi-energy spectral CT systems pushes the technical limits of current dual-energy spectral CT systems in order to improve their performance as well as to identify new applications in the field of cardiovascular and thoracic diseases in combination with dedicated contrast agents.

In this report of authorization to direct research, my research path is detailed with the help of the main works undertaken since my PhD as well as the research projects undertaken for the identification of new applications in spectral CT imaging.