MEDICAL PHYSICS SEMINAR SERIES



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DUAL ENERGY CT IN RT: NON-CALCIUM IMAGES FOR BONE MARROW IMAGING AND BONE DISEASE DELINEATION

The emergence of dual energy computed tomography (DECT) has provided a means to produce images that can be of great utility in the field of radiation therapy. The ability of DECT to identify specific materials in a CT image and subsequently subtract that material from the image has allowed physicians and physicists to visualize new elements of the patient's anatomy. In particular, the removal of calcium from CT images can allow for better visualization of disease in the bones and also of the active bone marrow distribution within the bones themselves. Ongoing research in this space aims to safely and accurately implement the use of non-calcium images in order to improve patient care.