

UNIVERSITY OF SOUTH FLORIDA

Major Research Area Paper Presentation

Cancer Heterogeneity in PET, CT, and MR Imaging: A Review

by

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For the Ph.D. degree in Computer Science & Engineering

A large number of studies focus on revealing, evaluating and quantifying the consistency of cancer using medical imaging. Due to the technical limitations of imaging scanners different modalities are used for different types of cancer. The goal of this paper is to extract a general view of medical image processing methods used in the literature across modalities in order to highlight well-studied areas as well as prospective research directions. All studies were divided into three groups where authors evaluate intratumoral heterogeneity, analyze peritumoral tissue and reveal habitats. According to our observations, most studies target processing images from a single time point. It is well known that cancer is a dynamic disease and tumor evolution data can be extracted using Radiomics. Heterogeneity changes in time, nevertheless the clinical potential of multi-time point imaging has been barely studied in Radiomics. We provide list of works used temporal data in Radiomics.

Tuesday, September 17, 2019

11:00 am

ENB 313

THE PUBLIC IS INVITED

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