

Development of a PET-CT diagnosis support system

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Abstract

In this study, we have developed a prototype system on PET-CT Diagnosis Support. Quoit filter have been used for extracting the tumor in X-ray Images and CT images. We tried to develop a new filter to extract the tumor of about 1cm with combining 3D-Quoit filter and sphere filter. The filter will react to spherical objects and high PET value. By showing detection results its MIP (Maximum Intensity Projection) images, it is possible to list the candidates for systemic tumors. The filtering process is very time-consuming iteration. However, our system is able to speed up scan time about 20 seconds by using parallel computing on the GPU.