

應用於乳房X光攝影之階層式腫塊偵測法則

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摘要

本論文提出一套針對乳房X光醫學影像之階層式腫塊區域檢測方法。此檢測方法包含三大部分：感興趣區域選取、紋理特徵擷取和類神經網路為基礎之分類器。感興趣區域 (region of interest) 選取用於降低系統運算複雜度。為了擷取有效的紋理特徵，本論文由空間域 (spatial domain) 和小波域 (wavelet domain) 分別擷取出多種紋理特徵。多種紋理特徵配合監督式訓練之類神經網路分類器，則可以進行腫塊區域的檢測。實驗結果顯示，本系統對於腫塊檢測之召回率與精確率分別為86%和27%。因此，本論文提出的輔助診斷系統能夠有效地檢測腫塊區域。

關鍵詞：腫塊檢測、紋理分析、類神經網路分類器

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