課程名稱：數位影像處理

Lab Assignment #5：過零檢測

學號：407261128 姓名：康智絜

1. **程式碼**

f = im2double(imread("knee\_mri\_blur.tif")); % 讀取磁振造影圖像knee\_mri\_sag.tif

h = fspecial('log', 25, 4); % 將圖像進行LoG濾波

g = imfilter(f, h, 'replicate');

T1 = 0;

T2 = max(abs(g()))\*0.08;

E1 = zerocross(g, T1, h); % 將濾波後之圖像輸入zerocross，以取得邊緣圖像

E2 = zerocross(g, T2, h);

figure; % 將產生的邊緣圖像輸出

subplot(221); imshow(f, []); title("原圖");

subplot(222); imshow(g, []); title("LoG");

subplot(223); imshow(E1, []); title("門檻值 = 0");

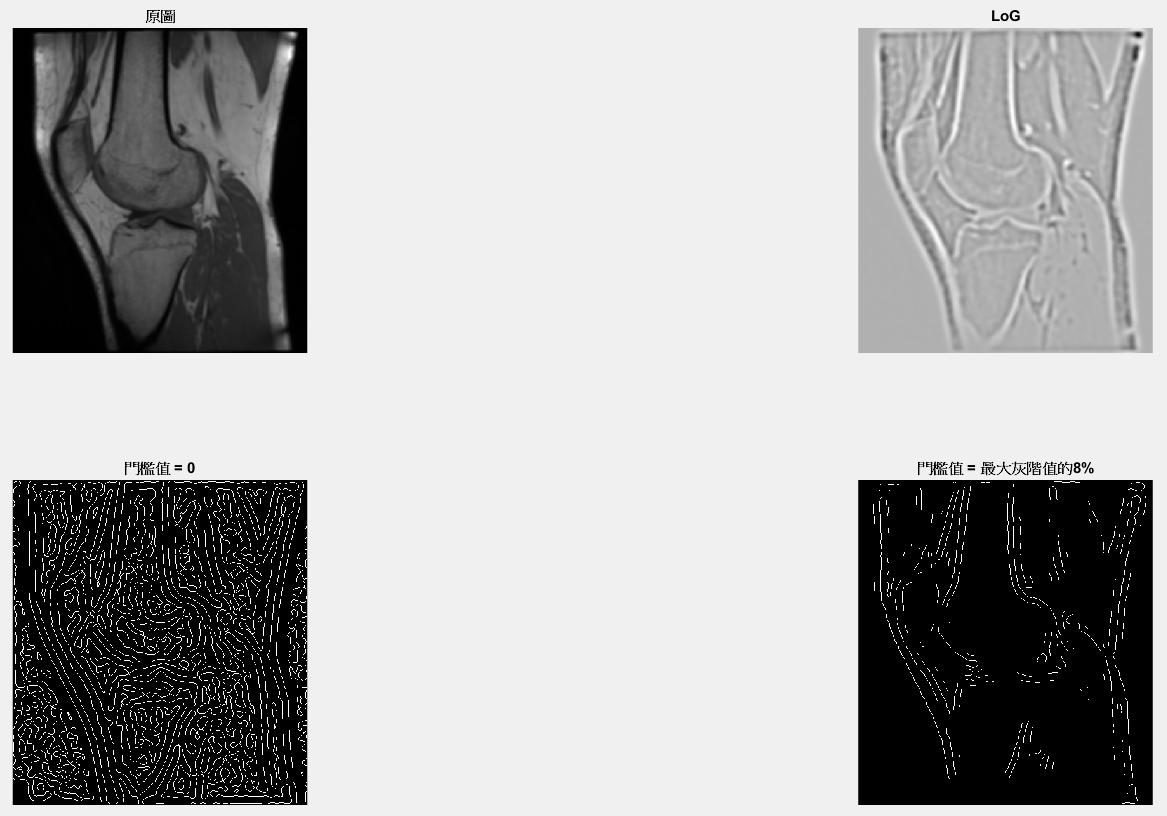
subplot(224); imshow(E2, []); title("門檻值 = 最大灰階值的8%");

function H = zerocross(LoG, threshold, h)

H = edge(LoG, "zerocross", threshold, h);

end

1. **輸出之影像**

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