附录-2. 数字莫尔三维测量程序

After capturing a single frame of image, shift the pattern by a phase of pi, delta, and delta + pi; Then superimpose the two phase-shifted pattern with the captured image

```
% Generate virtually two phase-shifted images and display them
% Input:
%     figPath - the directory path of the captured image
%     patternPath - the directory path of used pattern
%     deltaPixel - the smallest pixel moved
%     isDisplay - logic true
% Output：
%     figZeroPS - the dfig of grayscalized caputured image
%     figPiPS - the fig of grayscalized image with the phase
%     shift of pi
%     figDeltaPS - the fig of grayscalized image with the phase delta;
%     figDeltaPiPS - the fig of grayscalized image with the phase delta + pi
function [figZeroPS, figPiPS, figDeltaPS, figDeltaPiPS] =
digitalMorieSuperimpose(figPath, patternPath, deltaPixel, isDispaly)
    currentPath = pwd();
    cd("..\Patterns");
    directoryPath = pwd();
    patternPath = char(patternPath);
    patternName = patternPath(length(directoryPath)+1:end); % add the / simbol
    cd(currentPath);
    % take out the width
    [startIndex, endIndex] = regexp(patternName, 'w[\d]*_');
    width = str2num(patternName(startIndex+1:endIndex-1));

    % take out the height
    [startIndex, endIndex] = regexp(patternName, 'h[\d]*_');
    height = str2num(patternName(startIndex+1:endIndex-1));
```