



# **HW1**

## **Threshold and Noise Reduction**



# Task Description

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## Threshold

- Dataset: [Data](#)
- Two Local methods
- Two Global methods **excluding maximum likelihood**

## Noise reduction in color image

- Dataset: [Noise Lena Image](#)
- Two methods (such as RGB to HSV, Joint processing, vector filtering, ... etc.)

# Task Description

## Threshold

Original Image



Global thresholding



Local thresholding



# Task Description

Noise reduction

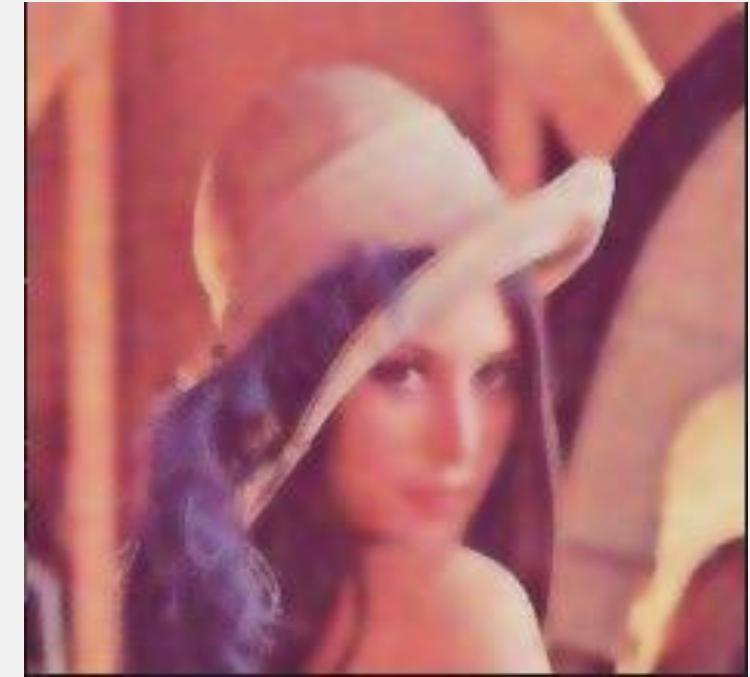
Original Image



HSV



Joint



# Report Format and Regulations

## Upload

- Report
  - Method description
  - Core code and Environment (including necessary libraries, version, etc.)
  - Result
  - Word 或 PDF (至少4頁標楷體大小為12，單行間距，左右對齊，字數至少800字(不算code))
- Program code
- 2025/10/08 23:59 (UTC+8) Upload to NCUE Cloud Server
- 遲交分數會打折，每隔一天打8折，遲交3天以0分計算

## Regulations

- 關鍵程式碼不能直接呼叫opencv完成，如cv2.GaussianBlur、cv2.threshold等
- 請自己完成作業，勿分享code與參數
- 抄襲同學(含被抄襲者)皆為0分