Processing Software and Simulation Status

Stamatios Gkaitatzis

Aristotle University of Thessaloniki,
University of Pisa
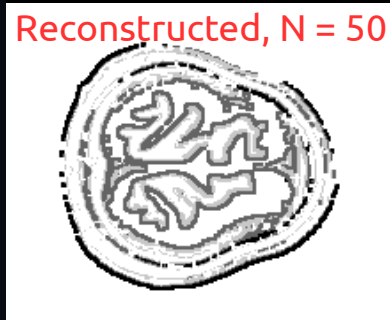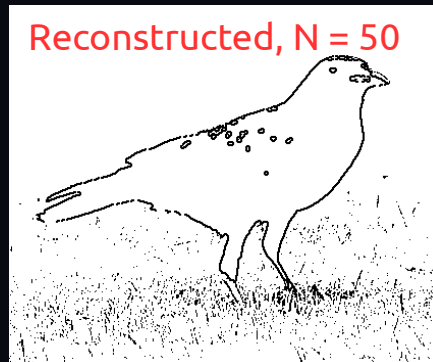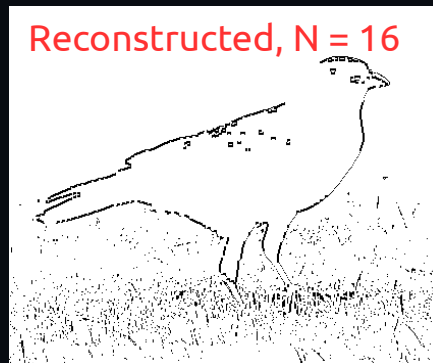
SHRIMPSim

- Currently based on three classes

1. Configuration

- Responsible for passing the necessary options to the program

2. Pattern Bank

- Generates and finds the patterns that have to be used
- Most intensive part of the program

3. ShrimpSim

- Main part, accepts configuration and patterns
- Scans an image keeping the relevant patterns

Limitations

- Currently it does not support medical images
  - Slices extracted from python script
- Pattern Banks are not currently saved
- Thresholds for MRI slices not yet understood

Simulation Example

Original

Threshold 120

Reconstructed, N = 16

Reconstructed, N = 50

Original

4 Levels of Gray

Reconstructed, N = 50

Proposal for RTSI 2016

- A demonstrator can be developed in a relatively short time

  - Total Estimate: 10 days

- CLI-based configuration will be replaced by GUI-based configuration

  - Estimate: 2-3 days

- Inclusion of Image Viewer "module" in GUI along with a grid to replace the image in pixels

  - Estimate: 6-7 days