Introduction

The work described here is the implementation of the algorithm described in [1] and [2].

The method consists in learning the parameters of a reference scale of intensities defined using a set of images as part of a training dataset. The reference distribution is defined as an average of a set of statistical parameters from the training datasets.

Main Work

The code consists in 3 parts

1. NIfTI image Downloading of 12 subjects;

As part of the downloading, a data structure called *imageData* is created which contains the 12 images, their respective NIfTI metadata information, their subject description and if they are part of the training dataset.

1. The landmarks

Reference:

[1] Laszlo G, Nyul and Jayaram K. Udupa, “On Standardizing the MR Image Intensity Scale”, Magnetic Resonance in Medicine 42:1072-1081 (1999)

[2] Laszlo G, Nyul and Jayaram K. Udupa, “New Variants of a Method of MRI Scale Standardization”, IEE Transactions on Medical Imaging, VOL.19. N).2, Feb 2000.