Annotated Adaptive Optics OCT (AO-OCT) images of the human retina

This repository contains AO-OCT images and their corresponding manual annotations from healthy and glaucoma subjects used as part of the following paper:

S. Soltanian-Zadeh, K. Kurokawa, Z. Liu, F. Zhang, O. Saeedi, D.X. Hammer, D.T. Miller, and S. Farsiu, "Weakly supervised individual ganglion cell segmentation from adaptive optics OCT images for glaucomatous damage assessment", *Optica*, 8(5), pp. 642-651, May 2021.

You must cite this paper if you use any component of this dataset.

Description

Each AO-OCT volume has a corresponding '_marker.mat' file which stores 3D coordinates of individual ganglion cell (GC) somas in a variable named *temp_marker*. temp_marker(:,1) are the index in depth (z), temp_marker(:,2) and temp_marker(:,3) are the index in x and y, respectively. To figure out the orientation please see the demo code.

Pixel size

lateral pixel size: (IU) 0.97 µm/pixel and (FDA) 1.5 µm/pixel
axial pixel size: (IU) 0.94 µm/pixel and (FDA) 0.685 µm/pixel