Tomography reconstruction from 2D projections

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11^{th} December 2017

1 Define the frame of work

For any computer project, a frame of work must be define. As this project is all about medical imagery made of disks of various intensities, the idea of creating three main classes defining images came naturally.

Framework class This class sets up the area where projections will be taken into account. For convenience, a disk has been preferred, the idea being to be able to translate the center and change the radius(e.g to compute only subsections of an image). Plus, it contains a list of images, so that we can handle them easily, whether it is switching between images, adding or removing.

- **Attributes**
  - **center** = [Xcenter,Ycenter]
  - radius
  - imageList
  - currentImage
- **Methods**
  - setters and getters for above attirbutes
  - addition and removal of an image
  - plot the framework and the current ilage

2 Derive the sinogram of a given image

3 Study moments