Tomography reconstruction from 2D projections

Rakotonarivo Michi Maxime Mazouth–Laurol

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1 Summary of the last meeting

- Agreement on weekly meetings via video chatting or face-to-face if necessary.
- Discussion about what has already be done. We have been warned that, during this project, only disks would be dealt with, which simplifies significantly the calculation of the line length of intersection of an arbitrary line in 2D with an arbitrary disk : instead of discretizing the projection lines, an analytical length can be computed.
- As formulae for translation and scaling of the Radon Transform exist, the sinogram of any disk can be derived from the Radon Transform of the unit sphere.

2 Actions to achieve

- Modify the code to take above remarks into account.
- Test out the derived sinograms for scaled and translated disks.
- Display moments of the projections and compare them with their projections in the trigonometric polynomial basis.
- Make some disks move during the parallel projection collection(the time variable being our projection angle).