

· 20 F.T on Medica Imaging (Tomography)

Setup: 2d rain (still of body) filled with goop (bohas, organs,...) Observibed by densiry function $W(X_1,X_1)$

want to recover it by x-my measurements

approach via tomography Shoot an x-ray through the togion along the line

know the intensity of x ray going in Io and I

I = I = E^{fu ds} the mansy days exponentially according to the integral of the along the line average density days there is a many the line average density of the master of the along the line average density for make loss of measurement

have measured Z=Z.eZ^{lud}, for differen L recover & from LM do

ODASider the numbers $\int W ds$ as defining a transform of M depending on the time L $(RM)(L) = \int W ds$ Radon transform of Winvert the Radion Transform?

Coordinate system g: y=mx+b -> (m,b) specify a line Cannoc describe the version time (infinite shope) The US, tend to and x-my thinghe along paralle lines Downliel Ines

 $\phi = \alpha \psi g_{1} + f_{1} + normal vector (000, f, sinf)$ $\psi \in [0, 3)$ $\rho = d v tona from origin \rho \in (-v_0, +v_0)$

pro if in the direction of mormal vector

Pla if opposite the direction of normal vector

describing a line xin = x10050 + x5 sing = p

Decide a s day de im p-xited theory
Sile-xited - work work in a prime
infine a ne la contractor, and the las
Sile-xited - Within Sile-xited work hade

$$I = \int_{-\infty}^{+\infty} \int_$$