Alpha - x- ray source angle

y

Py

S=A

S – x- ray source point (Sx, Sy)

detector

C1

B

(Px, Py) – position of the center of the phantom

C1, C2 – centers of the “circles”

C

C – first intersection point. Bisection method for T and A(=S)

C2

D

T

x

D – second intersection point. Bisection method for T and B

Px

T – point on the straight line. Closest to the [C1, C2]

Lz – l(z) distance from the center of the phantom (Px, Py)

to the point C1 and C2   
Rz – r(z) radius of the “circles” with the centers in C1, C2

Gamma – Position of the one of rays y in the x-ray beam   
 (“field of view”)

- the straight line “direction” vector

- the straight line “normal” vector