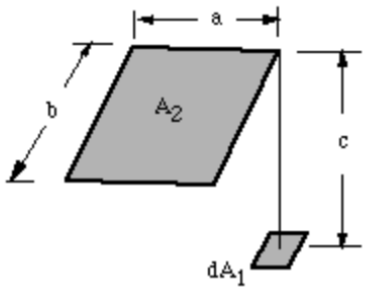
Case 1:

The following configuration has the corner of A_2 to be at (0, 0, D_z),



$$F_{d1-2} = \frac{1}{2\pi}\left\{\begin{array}{l} \dfrac{A}{\left(1+A^2\right)^{1/2}}\tan^{-1}\left[\dfrac{B}{\left(1+A^2\right)^{1/2}}\right] \\ +\dfrac{B}{\left(1+B^2\right)^{1/2}}\tan^{-1}\left[\dfrac{A}{\left(1+B^2\right)^{1/2}}\right] \end{array}\right\}$$

Definitions: A=a/c; B=b/c

Use the following notation:

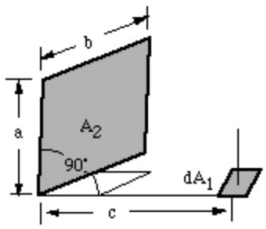
$a = D_x, b = D_y, c = D_z$

Determine the view factor if the corner of the rectangle is at (x, y, z)

a. Find the view factor by superposition
b. Find the view factor by Monte Carlo
c. Find the view factor between A_1 and A_2 where
   A_1 is a rectangle with dimension $D_{x,0}$ by $D_{y,0}$, left corner at the origin
   A_2 is a rectangle with dimension D_x by D_y, left corner at (x, y, z)

Case 2:

The following configuration has the corner of A_2 to be at (D_x, 0, 0),



$$F_{d1-2} = \frac{1}{2\pi}\left[\tan^{-1}\left(\frac{1}{C}\right) - \frac{C}{Y}\tan^{-1}\left(\frac{1}{Y}\right)\right]$$

Definitions: A=a/b; C=c/b; $Y=(A^2+C^2)^{1/2}$

Use the following notation:

$a=D_z, b=D_y, c=D_x$

Determine the view factor if the corner of the rectangle is at (x, y, z)

a. Find the view factor by superposition
b. Find the view factor by Monte Carlo
c. Find the view factor between A_1 and A_2 where
   A_1 is a rectangle with dimension $D_{x,0}$ by $D_{y,0}$, left corner at the origin
   A_2 is a rectangle with dimension D_y by D_z, left corner at (x, y, z)